SELF ASSESSMENT REPORT (SAR)

FOR

B.E ELECTRONICS AND COMMUNICATION ENGINEERING

(TIER-I)

Department of ECE

SONA COLLEGE OF TECHNOLOGY

(Autonomous Institution)

Junction Main Road, SALEM – 636 005 - India

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PART A

INSTITUTIONAL INFORMATION

PART A: Institutional Information

1. Name and Address of the Institution:

SONA COLLEGE OF TECHNOLOGY
Junction Main Road,
Suramangalam (PO),
Salem – 636005

2. Name and Address of the Affiliating University:

ANNA UNIVERSITY
Chennai – 600 025

3. Year of establishment of the Institution: **1997**

4. Type of the Institution:

- Institute of National Importance ☐
- University ☐
- Deemed University ☐
- Autonomous ☑
- Any other (Please specify) ☐

5. Ownership Status:

- Central Government ☐
- State Government ☐
- Government Aided ☐
- Self financing ☑
- Trust Society ☑
- Section 25 Company ☐
- Any Other (Please specify) ☐

6. Other Academic Institutions of the Trust/Society/Company etc., if any:

Name of the Institution(s)	Year of Establishment	Programs of Study	Location
Thiagarajar Polytechnic College	1958	Diploma	Salem
Sona College of Arts and Science	2017	Degree	Salem

7. Details of all the programs being offered by the institution under consideration:

S. No.	Program Name	Name of the Department	Year of Start	Intake	Increase/ Decrease in intake, if any	Year of Increase /Decrease	AICTE Approval	Accreditation Status*
1	Under Graduate Engineering	Mechanical Engineering	1997	180	Increase 120 intake	2012	upto 30th April 2019	Accredited 3 Years 01.07.2017 to 30.06.2019
2	Under Graduate Engineering	Electrical and Electronics Engineering	1997	120	Increase 60 intake	2011	upto 30th April 2019	Accredited 6 Years 01.07.2017 to 30.06.2022
3	Under Graduate Engineering	Computer Science and Engineering	1997	180	Increase 60 intake	2016	upto 30th April 2019	Inspection Date Confirmed
4	Under Graduate Engineering	Information Technology	1998	120	Increase 60 intake	2011	upto 30th April 2019	Inspection Date Confirmed
5	Under Graduate Engineering	Electronics and Communication engineering	1999	180	Increase 60 intake	2015	upto 30th April 2019	Inspection Date Confirmed
6	Under Graduate Engineering	Civil Engineering	2002	120	Increase 60 intake	2010	upto 30th April 2019	Inspection Date Confirmed
7	Under Graduate Engineering	Fashion Technology	2005	120	Increase 60 intake	2014	upto 30th April 2019	Accredited 3 Years 01.07.2017 to 30.06.2019
8	Under Graduate Engineering	Mechatronics	2018	60	-	-	upto 30th April 2019	Not Eligible
9	Post Graduate Engineering	Computer Science and Engineering	2002	18	Decrease 12 Intake	2018	upto 30th April 2019	Not Accredited

10	Post Graduate Engineering	Engineering Design	2004	18	-	-	upto 30th April 2019	Not Accredited
11	Post Graduate Engineering	Power Systems Engineering	2004	18	Decrease 12 Intake	2018	upto 30th April 2019	Not Accredited
12	Post Graduate Engineering	Power Electronics and Drives	2005	18	-	-	upto 30th April 2019	Not Accredited
13	Post Graduate Engineering	Product Design and Development	2005	18	-	-	upto 30th April 2019	Not Accredited
14	Post Graduate Engineering	Software Engineering	2005	18	-	-	upto 30th April 2019	Not Accredited
15	Post Graduate Engineering	VLSI Design	2005	18	Decrease 12 Intake	2018	upto 30th April 2019	Not Accredited
16	Post Graduate Engineering	Communication Systems	2005	18	-	-	upto 30th April 2019	Not Accredited
17	Post Graduate Engineering	Structural Engineering	2011	24	-	-	upto 30th April 2019	Not Accredited
18	Post Graduate Engineering	Information Technology	2012	18	-	-	upto 30th April 2019	Not Accredited
19	Post Graduate Engineering	Industrial Safety and Engineering	2015	24	-	-	upto 30th April 2019	Not Eligible
20	Post Graduate Engineering	Construction Engineering and Management	2015	24	-	-	upto 30th April 2019	Not Eligible
21	MBA	Masters in Business Administration	1998	180	-	-	upto 30th April 2019	Inspection Awaited
22	MCA	Masters in Computer Application	2000	60	Decrease 60 Intake	2017	upto 30th April 2019	Not Accredited

8. Programs to be considered for Accreditation vide this application

S. No.	Program Name
1	BE Civil Engineering
2	BE Computer Science and Engineering
3	BE Electronics and Communication Engineering
4	B Tech Information Technology

9. Total number of employees:

A. Regular Employees (Faculty and Staff):

Items		2017-18		2016-17		2015-16	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	M	153	156	140	146	137	146
	F	89	90	70	75	69	73
Faculty in Maths, Science & Humanities teaching in engineering Programs	M	22	23	24	27	26	26
	F	28	28	36	35	34	32
Non-teaching staff	M	168	168	164	157	170	169
	F	60	61	52	54	51	51

B. Contractual Staff Employees (Faculty and Staff): (Not covered in Table A):

Items		2017-18		2016-17		2015-16	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	M	NOT APPLICABLE					
	F						
Faculty in Maths, Science &Humanities teaching in engineering Programs	M						
	F						
Non-teaching staff	M						
	F						

10. Total number of Engineering Students:

(i) Under Graduate - Engineering

Item	2017-18	2016-17	2015-16
Total no. of boys	2318	2205	2693
Total no. of girls	1644	1665	2135
Total no. of students	3962	3870	4828

(ii) Post Graduate - Engineering

Item	2017-18	2016-17	2015-16
Total no. of boys	138	119	168
Total no. of girls	101	89	124
Total no. of students	239	208	292

11. Vision of the Institution:

SONA's VISION

- To become an institute of great repute, in the fields of Science, Applied Science, Engineering, Technology and Management studies, by offering a full range of programmes of global standard, to foster research, and to transform the students into globally competent personalities

12. Mission of the Institution:

SONA's MISSION

- To offer Graduate, Post-graduate, Doctoral and other value-added programmes beneficial for the students
- To establish state-of-the-art facilities and resources required to achieve excellence in teaching-learning, and supplementary processes
- To provide Faculty and Staff with the required qualification and competence and to provide opportunity to upgrade their knowledge and skills
- To motivate the students to pursue higher education, competitive exams, and other value added programmes for their holistic development
- To provide opportunity to the students to bring out their inherent talent
- To establish Centres of excellence in the emerging areas of research
- To have regular interaction with the Industries in the area of R & D, and offer consultancy, training and testing services
- To offer Continuing education, and Non-formal vocational education programmes beneficial to the society.

13. Contact Information of the Head of the Institution and NBA Coordinator, if designated:

(i)

Name	: Dr.S.R.R.Senthil Kumar
Designation	: Principal
Mobile No	: 9443366495
Email id	: principal@sonatech.ac.in

(ii)

NBA Coordinator	: Dr.C.V.Koushik
Designation	: Director - Academics
Mobile No	: 9443193906
Email id	: cvkoushik@sonatech.ac.in

PART B

PROGRAM LEVEL CRITERIA

CRITERION 1

VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES

1.1 State the Vision and Mission of the Department and Institute (5)

SONA'S VISION

To become an institute of great repute, in the fields of Science, Applied Science, Engineering, Technology and Management studies, by offering a full range of Programs of global standard, to foster research, and to transform the students into globally competent personalities

SONA'S MISSION

- To offer Graduate, Post-graduate, Doctoral and other value-added Programs beneficial for the students
- To establish state-of-the-art facilities and resources required to achieve excellence in teaching-learning, and supplementary processes
- To provide faculty and staff with the required qualification and competence and to provide opportunity to upgrade their knowledge and skills
- To motivate the students to pursue higher education, competitive exams, and other value-added Programs for their holistic development
- To provide opportunity to the students to bring out their inherent talent
- To establish centres of excellence in the emerging areas of research
- To have regular interaction with industries in the areas of R & D, and offer consultancy, training and testing services
- To offer continuing education, and non-formal vocational education Programs beneficial to the society

Mission and Vision of the Department

Vision

To be recognized by the society at large as a full- fledged department, offering quality higher education in the Electronics and Communication Engineering field with research focus catering to the needs of the stakeholders and staying in tune with the advancing technological revolution and cultural changes.

Mission

To achieve the vision, the department will

- Establish a unique learning environment to enable the students to face the challenges in Electronics and Communication Engineering field.
- Promote the establishment of centres of excellence in niche technology areas to nurture the spirit of innovation and creativity among faculty and students.
- Provide ethical and value-based education by promoting activities addressing the societal needs.
- Enable students to develop skills to solve complex technological problems and provide a framework for promoting collaborative and multidisciplinary activities.

1.2. State the Program Educational Objectives (PEOs) (5)

Program Educational Objectives (PEOs) are established through a consultation process. PEOs are broad statements that describe the career and professional accomplishments that the graduates should achieve within three to five years after the year of graduation.

The Electronics and Communication Engineering Program graduates will

PEO 1

Practice the ethics of their profession, consistent with a sense of social responsibility and develop their engineering design, problem–solving skills and aptitude for innovations as they work individually and in multi-disciplinary teams.

PEO 2

Communicate effectively and manage resources skillfully as members and leaders of the profession.

PEO 3

Be receptive to new technologies and attain professional competence through lifelong learning such as advanced degrees, professional registration, publications and other professional activities.

1.3. Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (15)

The Mission and Vision are published/ disseminated at

- Department website http://www.sonatech.ac.in/ece/
- College website http://www.sonatech.ac.in/
- Curriculum / syllabus books
- HOD cabin
- Departmental Notice Boards
- Class Rooms
- Faculty Rooms
- Laboratories
- Faculty Record Book
- Lab Manual
- Display boards
- Brochures of National and International conferences
- Brochures of Seminars
- Brochures of Workshops

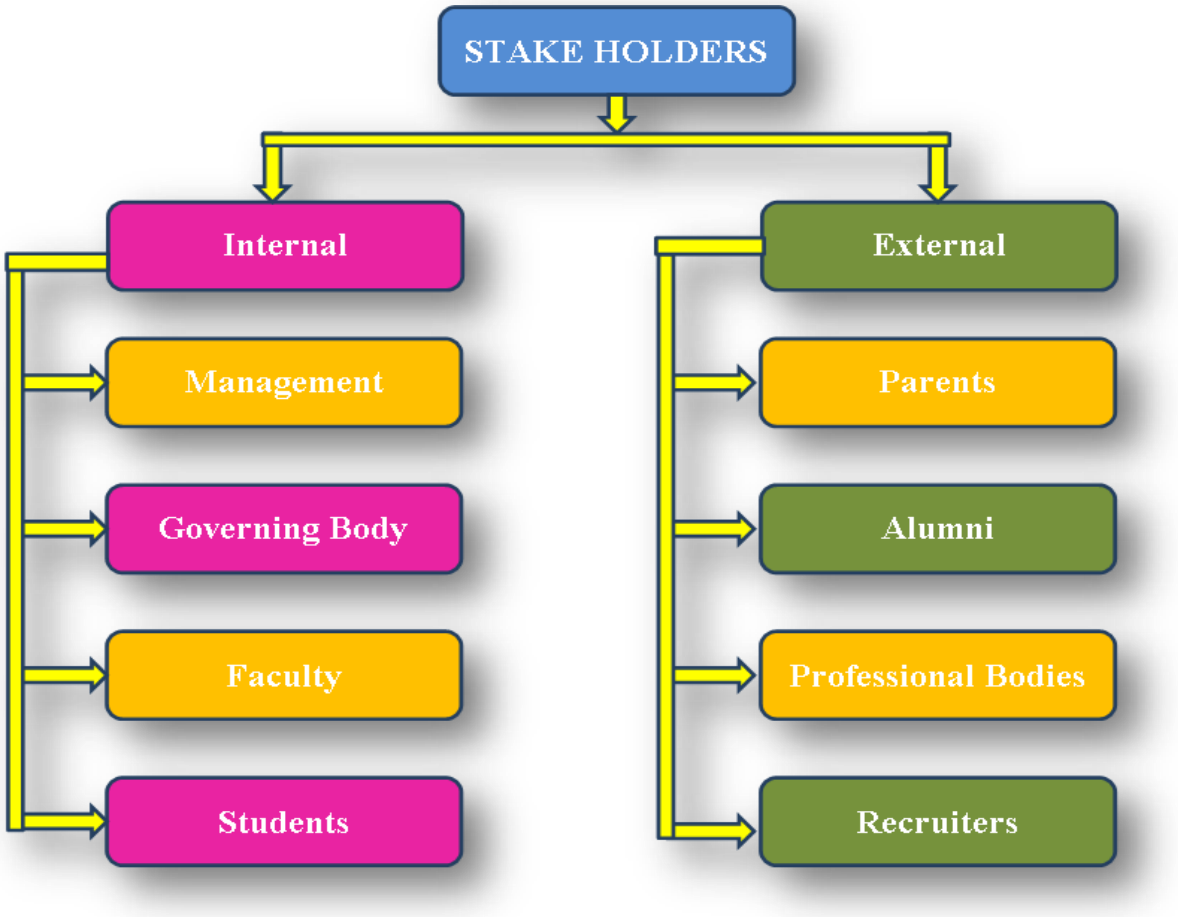


Fig 1.1 Stake holders involved in defining the vision, mission and PEOs

1.4. State the process for defining the Vision and Mission of the Department and PEOs of the Program (15)

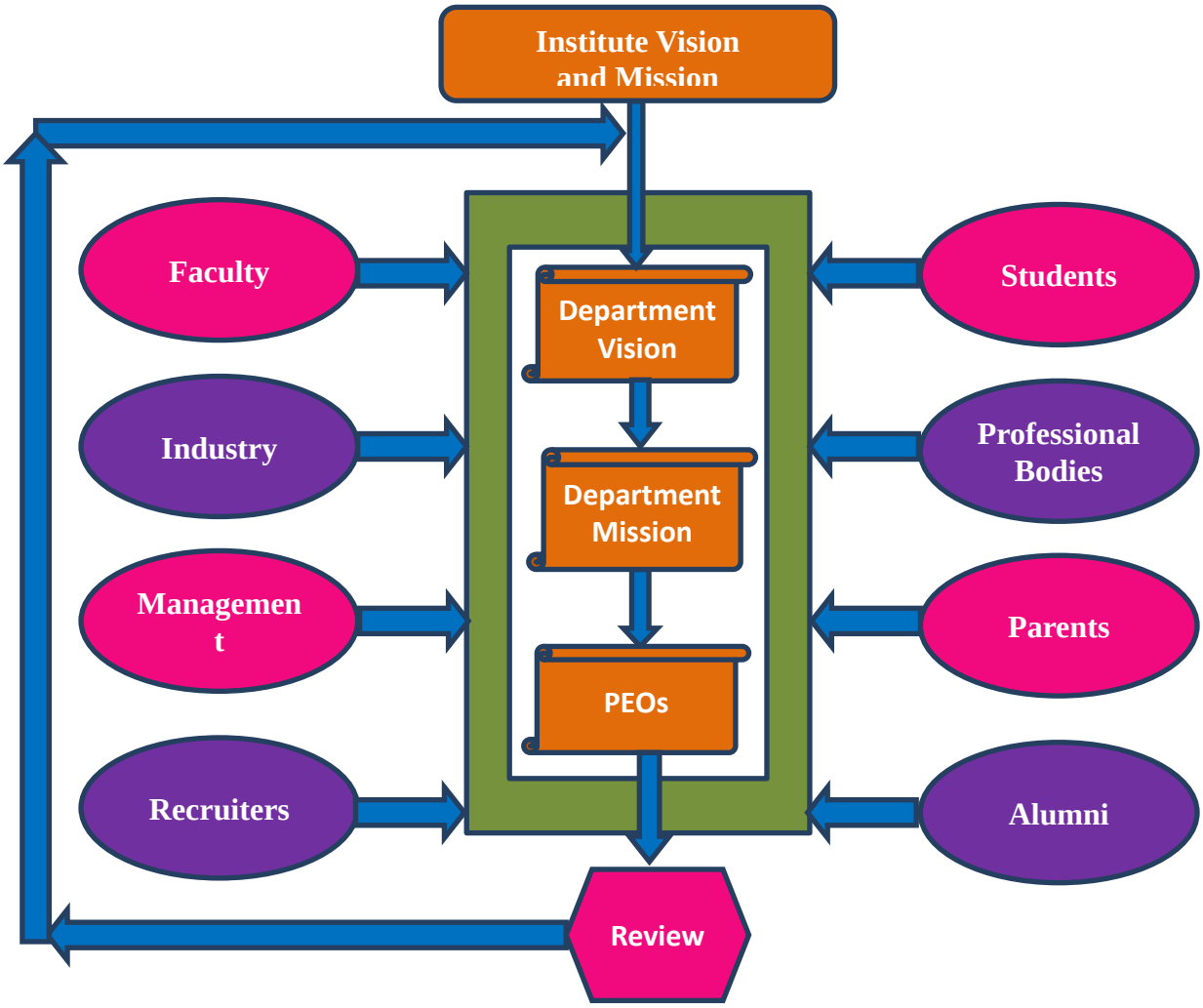


Fig 1.4 Process of defining PEOs

The vision and mission statements of the department are established through a thorough consultation process by involving the stakeholders (Faculty members, students, alumni, recruiters, parents and professional bodies) of the department.

Process for defining Program Educational Objectives:

The Program Educational Objectives are established through a consultation process involving the core constituents such as students, alumni, industry and faculty members. The PEOs are established through the following steps:

Step1: Vision and Mission of the department are taken as basis to interact with various stake holders.

Step2: Program coordinators and various committee members discussed the key constituents and collected and submitted the views to Department Consultative Committee (DCC) and Department Academic committee (DAC).

Step3: The Committees summarized the collected views and express its opinion on the views and forwarded the same to the Head of the Department.

Step4: The Department Head deliberated on the views expressed by the Committee and formulated the accepted views based on which PEOs were established.

The detailed member list of Class counsellors, DCC and DAC is attached in **Annexure 1.4.**

1.5. Establish consistency of PEOs with Mission of the Department (10)

Mission of the Department

To achieve the vision the department will

Mission 1 : Establish a unique learning environment to enable the students to face the challenges in the Electronics and Communication Engineering field.

Mission 2 : Promote the establishment of centres of excellence in niche technology areas to nurture the spirit of innovation and creativity among faculty and students.

Mission 3 : Provide ethical and value-based education by promoting activities addressing the societal needs.

Mission 4: Enable students to develop skills to solve complex technological problems and provide a framework for promoting collaborative and multidisciplinary activities

Consistency of PEOs with Mission of the Department

PEO Statements	M1	M2	M3	M4
PEO 1 : Practice the ethics of their profession consistent with a sense of social responsibility and develop their engineering design, problem–solving skills and aptitude for innovations as they work individually and in multi-disciplinary teams	2	3	3	3
PEO 2 : Communicate effectively and manage resources skillfully as members and leaders of the profession.	2	2	2	2
PEO 3 : Be receptive to new technologies and attain professional competence through lifelong learning such as advanced degrees, professional registration, publications and other professional activities.	3	2	2	3

3 - Strong Correlation 2 -Moderate Correlation 1 - Weak Correlation

- **PEO1** is strongly mapped with the mission statements 2, 3 and 4 because it fulfills the objectives of the multidisciplinary activities related to technology, innovation and creativity.
- **PEO2** is moderately mapped with all the mission statements because it focuses on leadership quality and complies with the outcomes of interdisciplinary activities.
- **PEO3** is also strongly mapped with the mission statements 1 & 3 because it focuses on the attainment of professional competencies related to the latest technological advancement.

CRITERION 2

PROGRAM CURRICULUM AND TEACHING LEARNING PROCESSES

CRITERION 2	PROGRAM CURRICULUM AND TEACHING LEARNING PROCESSES	100

2.1 Program Curriculum (30)

2.1.1 State the process for designing the program curriculum (10)

Sona College of Technology is an autonomous institution affiliated under Anna University, Chennai. The B.E. Electronics and Communication program curriculum is approved by the board of studies expert members and Institute academic council committee.

In general, Curriculum maintains the balance in the composition of Basic Science, Engineering Sciences, Humanities and Social Sciences, Program Core, Program Electives, Open Electives, Projects Work and Employability Enhancement. The feedback from the alumni members, faculty , students, recruiters and industry experts were taken and the short-comings were identified along with the data collected from IIT's and other reputed National & International universities though their websites, Professional Society's (IEEE, IETE). Analysis is done for attaining the PO/PSO's through the curriculum. Then the curriculum and syllabus are presented to the Board of studies expert members for approval. The final approval of curriculum and syllabus is done by Institute academic council committee, as and when required.

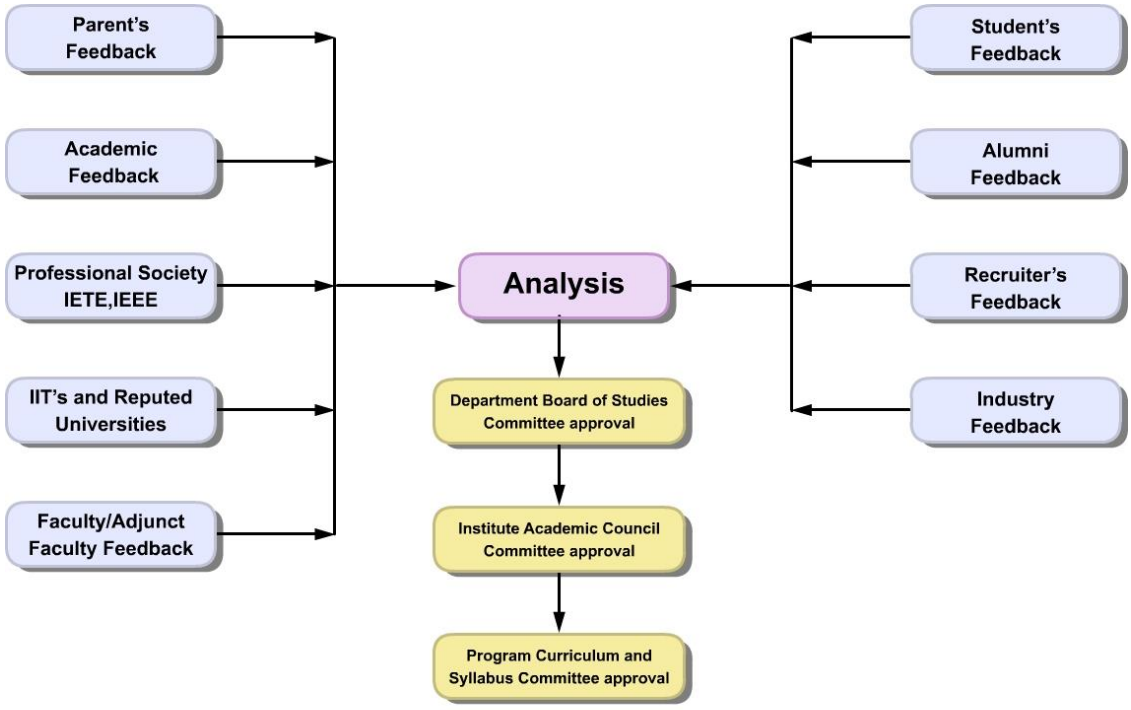


Fig 2.1 The process for designing the program curriculum

2.1.2 Structure of the Curriculum (5)

Curriculum for the regulations 2010R is given below, as the latest graduated batch (2013-17) followed this regulations. The curriculum for the other regulations are given in the **Annexure 2.1.2.**

S.No.	Regulations	Batch
1.	2015R	2016-2020
2.	2015	2015-2019
3.	2014	2014-2018
4.	2010R	2011-2015 2012-2016 2013-2017
5.	2010	2010-2014

Regulations – 2014

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	
U14ENG101	Technical English – I	3	0	1	4	3
U14MA T102	Multivariable Calculus and Matrices	3	1	0	4	4
U14PHY103	Engineering Physics	3	0	0	3	3
U14CHE104	Engineering Chemistry	3	0	0	3	3
U14FOC105	Fundamentals of Computing Systems	3	0	0	3	3
U14BEE106	Basic Electrical & Electronics Engineering	3	1	0	4	3
U14PCL107	Physics & Chemistry Laboratory-I	0	0	3	3	2
U14CPL108	Computer Practices Laboratory	0	0	3	3	2
U14EPL109	Engineering Practices Laboratory	0	0	3	3	2
U14ENG201	Technical English – II	3	0	1	4	3
U14MAT202	Vector Calculus, Differential Equations and Complex Analysis	3	1	0	4	4
U14PHY203	Materials Science	3	0	0	3	3
U14CHE205A	Chemistry for Electrical and	3	0	0	3	3

	Electronics Engineers					
U14CPR206	Programming in C	3	0	0	3	3
U14EGR207	Engineering Graphics	2	0	2	4	3
U14PCL208	Physics & Chemistry Laboratory- II	0	0	3	3	2
U14CPL209	C programming Laboratory	0	0	3	3	2
U14BEEl209	Basic Electrical and Electronics Engineering Laboratory	0	0	3	3	2
U14GE301A	Transforms and Partial Differential Equations	3	1	0	4	4
U14EC302	Electron Devices and Circuits	3	0	0	3	3
U14EE310	Electrical Engineering	3	0	0	3	3
U14EC303	Digital Electronics	3	0	0	3	3
U14EC304	Signals and Systems	3	1	0	4	4
U14CHE304	Environmental Science	3	0	0	3	3
U14GE302	Personality and Career Enhancement- I	2	0	0	2	1
U14EC305	Electronic Circuits Laboratory	0	0	3	3	2
U14EC306	Digital Electronics Laboratory	0	0	3	3	2
U14GE303	Communication Skills Laboratory	0	0	2	2	1
U14MAT401C	Probability and	3	1	0	4	4

	Random Processes					
U14EC401	Electromagnetic Fields	3	1	0	4	4
U14EC402	Electronic Circuits	3	0	0	3	3
U14EC403	Linear Integrated circuits	3	0	0	3	3
U14EE407	Control Systems	3	0	0	3	3
U14EC404	Measurements and Instrumentation	3	0	0	3	3
U14GE402	Personality and Career Enhancement - II	2	0	0	2	1
U14GE404	Special Interest Course – I*	0	0	0	0	0
U14EC405	Linear Integrated and Circuits Laboratory	0	0	3	3	2
U14EC406	Electronic Circuits and Simulation Laboratory	0	0	3	3	2
U14MAT501B	Numerical Methods for Engineering Computation	3	1	0	4	4
U14EC501	Analog Communication Systems	3	0	0	3	3
U14EC502	Digital Signal Processing	3	0	0	3	3
U14EC503	Transmission Lines and Waveguides	3	0	0	3	3
U14EC504	Microprocessor and its	3	0	0	3	3

	applications					
U14EC505	Computer Networks	3	0	0	3	3
U14GE501	Personality and Career Enhancement – III	2	0	0	2	1
U14GE502	Special Interest Course-II*	0	0	0	0	0
U14EC506	Microprocessor Laboratory	0	0	3	3	2
U14EC507	Digital Signal Processing Laboratory	0	0	3	3	2
U14EC508	Computer Networks Laboratory	0	0	3	3	2
U14EC601	Digital Image Processing	3	0	0	3	3
U14EC602	Digital Communication	3	0	0	3	3
U14EC603	Antenna and Wave Propagation	3	0	0	3	3
U14EC604	VLSI Design	3	0	0	3	3
U14EC605	Micro controller and RISC Architecture	3	0	0	3	3
U14EC606	Medical Instrumentation	3	0	0	3	3
U14GE601	Personality and Career Enhancement – IV	2	0	0	2	1
U14GE602	Special Interest Course-III*	0	0	0	0	0
U14EC607	Communication Laboratory (Analog , Digital and RF)	0	0	3	3	2

U14EC608	VLSI Laboratory	0	0	3	3	2
U14EC609	Digital Image Processing Laboratory	0	0	3	3	2
U14EC610	Mini Project	0	0	1	1	1
U14GE701	Professional Ethics and Human Values	3	0	0	3	3
U14EC701	Wireless networks	3	0	0	3	3
U14EC702	Optical Fiber Communication	3	1	0	4	4
U14EC703	Microwave engineering	3	0	0	3	3
U14EC9XX	Elective – I	3	0	0	3	3
U14EC9XX	Elective – II	3	0	0	3	3
U14EC704	Optical and microwave Laboratory	0	0	3	3	2
U14EC705	Electronic System Design Laboratory	0	0	3	3	2
U14EC706	Project Work Phase I	0	0	5	5	2
U14EC801	Cellular and Mobile Communication	3	0	0	3	3
U14EC802	Disaster Management	3	0	0	3	3
U14EC9XX	Elective – III	3	0	0	3	3
U14EC9XX	Elective- IV	3	0	0	3	3
U14EC803	Project Work Phase II	0	0	20	20	6
	Total	**145**	**9**	**86**	**240**	**196**
LIST OF ELECTIVE						
U14EC910	Advanced Microprocessor	3	0	0	3	3
U14EC911	Internet and Java	3	0	0	3	3
U14EC912	Computer Hardware and	3	0	0	3	3

	Interfacing					
U14EC913	Advanced Digital Signal Processing	3	0	0	3	3
U14EC914	Electromagnetic Interference and Compatibility	3	0	0	3	3
U14EC915	High Speed Networks	3	0	0	3	3
U14EC916	Solid State Electronic Device Modelling	3	0	0	3	3
U14EC917	Neuro Fuzzy Systems & Engineering Applications	3	0	0	3	3
U14EC918	ASIC Design	3	0	0	3	3
U14EC919	RF Circuit Design	3	0	0	3	3
U14EC920	Nano Electronics	3	0	0	3	3
U14EC921	Embedded and Real Time System	3	0	0	3	3
U14EC922	Satellite Communication	3	0	0	3	3
U14EC923	Speech Processing	3	0	0	3	3
U14EC924	ARM System Architecture & Application	3	0	0	3	3
U14EC925	Telecommunication and Switching Networks	3	0	0	3	3
U14EC926	Television and Video Engineering	3	0	0	3	3
U14EC927	DSP Architecture	3	0	0	3	3
U14EC928	Automotive Electronics	3	0	0	3	3

U14EC929	Artificial Intelligence	3	0	0	3	3
U14EC930	Pattern Recognition	3	0	0	3	3

***Special Interest Course is audited without any credit.**

2.1.3. State the components of the curriculum (5)

Components of the curriculum for regulations 2010R is given below, as the latest graduated batch (2013-17) followed this regulations. The components of the curriculum for other regulations are given in the **Annexure 2.1.3.**

Regulation – 2014

Course Component	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic Sciences	19.9	41	39
Engineering Sciences	13.27	32	26
Humanities and Social Sciences	6.63	16	13
Program Core	47.45	105	93
Program Electives	6.12	12	12
Project(s)	4.59	26	9
Employability Enhancement	2.04	8	4
	Total number of Credits		**196**

2.1.4. State the process used to identify extent of compliance of the curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexure I (10)

Program curriculum and syllabus is approved by Board of Studies and the assessment of the curriculum and syllabus is done by internal and external members. Feedback from Students, Parents, Recruiters, Industry, and Alumni are taken for indirect assessment. Mapping is performed for each assessment with POs and PSOs. From the direct and indirect assessment POs and PSOs are calculated.

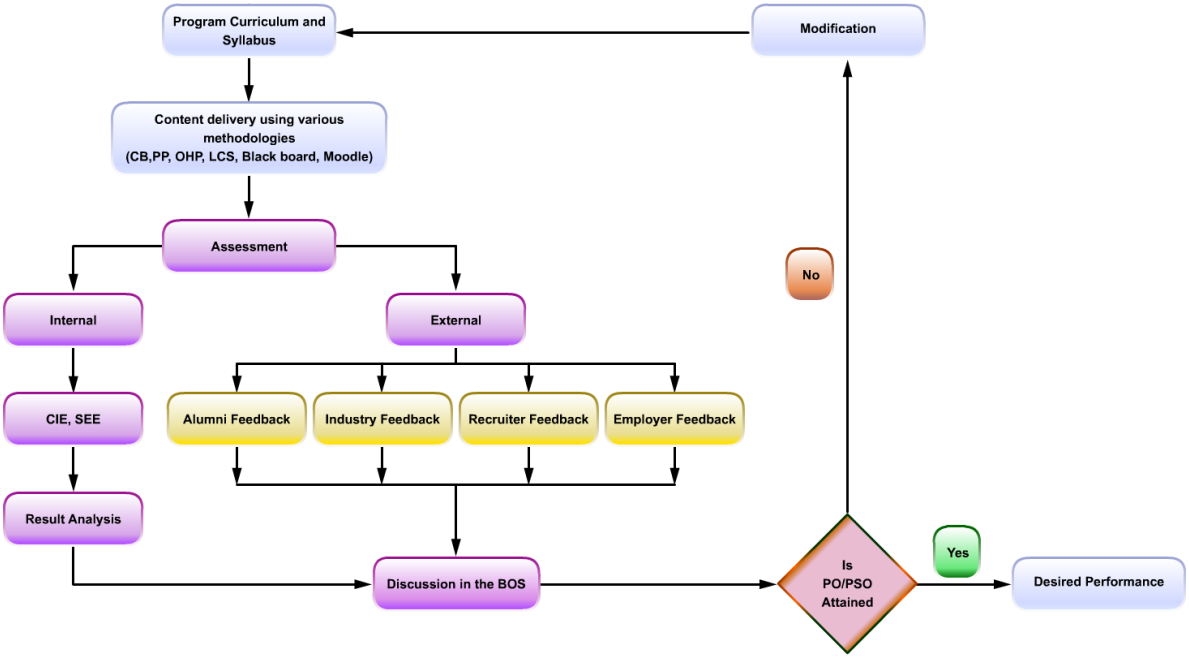


Fig 2.1.4 The process of identifying extent of compliance of the curriculum.

FEEDBACK FROM STUDENTS:

- Most significant role in the program.
- Third and final year students also members of the Board of studies in Electronics and Communication Engineering.
- Their feedback is considered for improving curriculum.

FEEDBACK FROM Industry:

- Play a vital role in framing the program curriculum.
- Getting feedback from the industry people for curriculum and syllabi.
- Provide input for designing the program, establishment and PEOs/POs.

FEEDBACK FROM ALUMNI:

- Alumni are a measure of long term success of the program.
- Their feedback helps in curriculum design to meet the need in Engineering and Technology.
- Recollect their existence during their stay in the institute and advice the department with necessary inputs with respect to students' career.

FEEDBACK FROM PARENTS:

- Parents are another important stakeholder for the academic Program. The parent constituency contributes by providing valuable suggestions and feedbacks.

FEEDBACK FROM RECRUITERS/ EMPLOYER:

- Their inputs will help to enhance the program curriculum such that the program outcomes are attained and it enable the students to face the challenges in recent trends.

2.2 Teaching-Learning Processes (70)

2.2.1 Describe Processes followed to improve quality of Teaching & Learning (15)

Course Delivery Methods:

Adherence to Academic calendar

- In the beginning of every academic year, the academic calendar is framed and issued to the faculty members and students.
- An academic calendar is framed based on the discussions with the Controller of Examinations, Department Heads, Departmental club coordinator, Department level consultative committee and other decision-making authorities. The framing is carried out at least 15 days

before the commencement of the academic year. The calendar is printed and handed over to the students at the beginning of the academic year.

- The calendar provides information about the Vision, Mission and quality policy of the institution and department. The calendar list the details of amenities, and Research centers available to students. The awards received by students and faculty members are also briefed in the calendar. Rules and regulations pertaining to the hostel, library, classrooms and other areas within the campus are enlisted.
- The academic schedule provides
  - Date of commencement of the academic session,
  - Duration of semester
  - Commencement of Continuous Internal Evaluation(CIE) test,
  - Last working day
  - Commencement of practical and semester end examinations,
  - Study period, and date of reopening of the forthcoming semester etc.
- A schedule of conferences, workshops, guest lecturers is chalked out and included in the academic schedule to improve the quality of teaching-learning process.

Course plan:

In the teaching –learning process, the course plan plays a vital role. It is prepared by each faculty member handling their respective courses 15 days prior to the commencement of every semester. The course plan for each of the course is scrutinised by the DAC and DCC under the guidance of the Head of the Department

- Course plan includes course outcomes, teaching aids, teaching methods, learning outcomes, and mapping of outcomes and learning resources that can be effectively utilized for the best delivery.
- Based on the course plan, the delivery is recorded accordingly in the Faculty Record Book (FRB) and reviewed by the Head of the Department.
- The teaching-learning process is evaluated based on the data recorded in the FRB.

All faculty members maintain the FRB for the course that they handle. It contains the following details

- Institute vision
- Institute mission
- Timetable
- Syllabus
- Topics to be taught beyond the syllabus
- course outcomes with learning outcomes
- Learning Resources developed
- Course delivery details and record of class work
- record the attendance
- analyze the performance of students in CIE tests
- grade the students
- maintain details about guidance and counseling given to the students

Classroom teaching

In the teaching-learning process, the lectures are delivered by the faculty member through a set of teaching aids and adopting various teaching methods.

These include:

Teaching Aids:

Chalk & Board, Power point presentation, Video Film, Models, Charts, Animation, etc.,

Teaching Methods:

- Lecture
- Group Discussion
- Seminar
- Quiz
- Team Teaching
- Demonstration
- Drill and Practice
- Industrial Visit

- Games/Role Play
- On-line Learning Resources
- Tutorial
- Technical Training
- Flipped classrooms
- Project based learning

Lecture:

Lecture is an efficient and traditional method for delivering substantial amount of information and imparting knowledge to a large number of students. It provides a summary or synthesis of information from various sources. The faculty member ensures to kindle the student for exploring much more on the topic that is delivered with substantial amount of information.

The faculty member ensures that at least a small group of students among the batch are attracted towards the topic summarized and henceforth kindled towards the other modes of teaching aids. Faculty member explains the concepts, principles solutions to problems and applications of respective subject. Lectures create an interest in the subject among the students and kindle their creativity for application in the field.

Group Discussion:

Group removes shyness of students and develops their communication skill. It builds their self-confidence. It nurtures them to express their views regarding a subject in a polite manner.

Group discussions are arranged and facilitated by faculty members. At the end of a group discussion, the student members have clear and unbiased thoughts.

The curriculum in the autonomous stream is framed such that the student takes up a review of the previous course. The recollection of such topics can be effectively carried out by hosting a Group Discussion rather than a lecture course delivery.

This approach also paves way to improvise the communication and technical presentation skills of the students. The debate on topics by students effectively improvises the skills of the students. At times, the faculty member summarizes the topic for the non-participants of the group discussions such that they appreciate the need for recollection of the topic.

Seminar:

To enhance the teaching / technical delivery skills among individual students' seminar sessions are arranged. The choice of the seminar topic is done in such a manner that certain topics post-lecture requires a marginal change for the consecutive concepts.

Seminars are designed for students to talk about topics in the particular course or lectures in detail. Seminars are a vital part of most academic courses and they give opportunity to students to discuss the topics in depth with other students, and with the faculty member.

The debate and argument with other students is very useful in developing their grasping and understanding ability of the subject.

Benefits associated with seminars include opportunities to:

- Learn novel approaches and ideas from peers
- Clarify the complex concepts.

Quiz:

Periodical and quick assessment of the student's understanding the concepts is carried out by conducting quiz program. The quiz is either an online one or the traditional paper mode. The scores are recorded for assessing the student's understating of the concepts.

Team Teaching:

The unique teaching capability of each faculty member is tapped in this method. The variety of perceptions of the same subject by different experts is experienced by the students. The method effectively works for courses of higher levels where the students get a blend of knowledge on focused topics.

Demonstration:

Learning Engineering demands on demonstrations. Demonstrations need not be working models. Faculty members choose day-to-day essentials for demonstrations of engineering concepts. The approach is much suitable for basic level engineering courses so that the student recollects the basic concept each and every time he looks at the items.

Drill and Practices:

Despite following the innovative practices of course delivery, it's at times necessary to impinge the traditional way of making the student to remember certain important formulae and steps involved in designing. One such approach which is involved is the drills and practices.

Industrial Visit :

Industrial visits represent one of the important attribute in any engineering undergraduate program that contribute to the achievement of various essential learning outcomes and program outcomes.

It provides the students an opportunity to learn practically through interaction, and by seeing the working methods and employment practices.

Project:

Engineering education gets itself a complete structure only after the completion of a real time project. The project can be either a prototype model or a working on a real-time industry project. While the former one is guided only by the academic professor and the later one is co-guided by the industry partner. The major outcome of the teaching aid is to make the students understand the work culture and adapt themselves in the industrial environment.

National Program of Technology Enhanced Learning (NPTEL)

NPTEL provides E-learning through online web and video courses in engineering, science and Humanities streams. The mission of NPTEL is to enhance the quality of Engineering Education in the country by providing free online courseware. **http://nptel.iitm.ac.in/**

Anna EduSat Program

The Centre for Faculty Development of Anna University – Chennai conducts the ANNA EDUSAT live interactive audio-video lecture Programs transmitted through Ku-Band provided by ISRO, Bangalore from January 2006 onwards.

URL: **http://www.annauniv.edu/facultydevelopment/edusat.html**

SWAYAM is an instrument for self-actualization process. It provides opportunities for a life-long learning. A learner can choose from hundreds of courses. Every course that is taught at the university / college / school level is in virtual medium. The courses are taught by best teachers in India and elsewhere. A student studying in any college can transfer the credits earned by taking these courses into their academic record.

Tutorial:

Tutorial classes are conducted to train the students in analytical subjects. The total strength of students is divided into two equal halves and two tutorial classes are handled by two faculty members, so that special concentration would be given to the weak students. Tutorial classes help the students to improve their analytical and problem-solving skills. Implementation of tutorial classes helps the students to clear analytical papers in semester end examination.

Technical Training:

Technical training enhances the students to get in-depth knowledge about their subject.

Technical training refreshes the basics which will be helpful for placement activities.

Specially designed training (soft skills, communication skills) is given to students. Such activities facilitate the students to win in job recruitment /placement.

Students interaction with Faculty members and students' feedback

At the end of each period, students are given enough time to interact with the faculty member for clarification, on the concepts explained in the session.

This helps the students to get clear knowledge of the course content delivered by the faculty members.

In addition to this, faculty advisors interact with the students allotted to them frequently and counsel the students when required. The faculty members involve in constructive discussions and activities to promote the students' higher-order thinking skills.

Students' feedback will be taken in the starting and end of each semester for each subject. .Based on the students' feedback faculty members will be given counseling; pedagogy training and team teaching will be suggested for them .

Content beyond the Syllabus

The faculty member who is teaching the course identifies the important and current topics that are not covered in the syllabus.

In each theory course, students enrich their knowledge by learning the advanced concepts in the course that are not prescribed in the syllabus.

Utilization of Moodle and Black Board Software

Course plans, Assignments, Quiz and course materials like PPTs, videos, documents are published in Black Board software for all the courses so that all the students can get the course materials at any time whenever they need.

Maintenance of course file

For each course, a course file is maintained by the concerned faculty member. .It includes Faculty Record Book, question bank, assignment topics, Sample CIE test papers and sample answer papers.

Faculty Record Book includes the following :

- Vision and Mission Statements
- Learning outcomes
- Program Outcomes (POs)
- Course contents-Syllabus
- Course Outcomes (COs)
- Time Table
- Course Delivery details.
- COs to POs mapping matrix
- Modes of Content Delivery
- Assessment of course outcomes
- Results of COs Attainments
- Quantifying the achievement of course outcomes
- Record of Attendance
- Details of CIE test marks
- Details of follow-up action for all CIE test
- Details of Seminars / Guest Lectures and Industrial Visits organized

MOOC courses for the faculty

Each faculty member takes a MOOC courses in his/her area of specialization or in the subject being taught in the current semester.

It helps the faculty member to enhance his/her skills in the specified subject area and through this they can also enhance the skill of students.

List of faculty members Completed MOOC courses 2017-18

S.No	Name of the Staff	Course Name	MOOC	Month &year
1.	Dr.R.S.Sabeenian	Image and Video processing from Mars to Hollywood with a stop at the hospital	COURSERA	MAR 18
		Fundaments of Digital Image and Video Processing.	COURSERA	AUG 17
2.	Dr. R. Vinod Kumar	Outcome based pedagogy Training	NPTEL	OCT 17
3.	Prof. J.P. Senthil Kumar	Analog Communication	NPTEL	OCT 17
4.	Prof. S. Deepa	Microprocessor & Microcontroller	NPTEL	APR 18
5.	Dr. K.R. Kavitha	Microprocessor & Microcontroller	NPTEL	APR 18
		Analog Communication	NPTEL	OCT 17
6.	Dr. N. Sasirekha	Elective Engineering Teaching in practice	NPTEL	APR 18
7.	Prof. J. Harirajkumar	Microprocessor & Microcontroller	NPTEL	APR 18

8.	Ms. T. Shanthi	Image and Video processing from Mars to Hollywood with a stop at the hospital	COURSERA	MAR 18
		Fundaments of Digital Image and Video Processing	COURSERA	AUG 17
9.	Dr. K. Anguraj	IOT	NPTEL	OCT 17
		FDP101X-Foundation Program in ICT for Education	IIT Bombay	SEP 17
		FDP201X-Pedagogy for Online and Blended Teaching Learning Process	IIT Bombay	NOV 17
10.	Dr. G. Ravi	Microprocessor & Microcontroller	NPTEL	APR 18
11.	Dr. S. Vijayalakshmi	Antennas	NPTEL	APR 18
		Analog Communication	NPTEL	OCT 2017
12.	Ms. K. Manju	Image and Video processing from Mars to Hollywood with a stop at the hospital	COURSERA	APR 18
		Fundaments of Digital Image and Video Processing	COURSERA	AUG 17
13.	Ms. M. Senthil	Antennas	NPTEL	APR 18

	Vadivu	Analog Communication	NPTEL	OCT 17
14.	Mr. M.E. Paramasivam	Fundaments of Digital Image and Video Processing	COURSERA	AUG 17
15.	Ms. A. Sangeetha	Control Engg	NPTEL	APR 18
16.	Dr. B. Thiyaneswaran	Microprocessor & Microcontroller	NPTEL	APR 18
		Image and Video processing from Mars to Hollywood with a stop at the hospital	COURSERA	SEP 17
		FDP101X-Foundation Program in ICT for Education	IIT Bombay	SEP 17
		FDP201X-Pedagogy for Online and Blended Teaching Learning Process	IIT Bombay	NOV 17
17.	Ms. V. Meenakshi	Elective Engineering Teaching in practice	NPTEL	APR 18
18.	Ms. M. Susaritha	Microprocessor & Microcontroller	NPTEL	APR 18
		Analog Communication	NPTEL	OCT 17
19.	Ms. A.P. Jaya Krishna	Electromagnetic Theory	NPTEL	APR 18
		Microprocessor & Microcontroller	NPTEL	APR 18

20.	Mr. A. Ayub Khan	Microprocessor & Microcontroller	NPTEL	APR 18
21.	Mr. P.M. Dinesh	Image and Video processing from Mars to Hollywood with a stop at the hospital	COURSERA	MAR 18
		Neural Networks and deep learning		
		Fundaments of Digital Image and Video Processing -	COURSERA	AUG 17
22.	Ms. R.Gayathri	Principles of communication Theroy-1	NPTEL	APR18
		Analog Communication	NPTEL	OCT 17
23.	Mr R.Anand	Image and Video processing from Mars to Hollywood with a stop at the hospital	COURSERA	MAR 18
24.	Mr.S.Ramkumar	Electromagnetic Theory	NPTEL	APR 18
		Applied Electromagnetics for Engineers	NPTEL	OCT 17
25.	Mrs.M.Amudha	Control Engineering	NPTEL	OCT 17

List of faculty members Completed MOOC courses (2016-17)

S. No	Name	Course	MOOC	Month &year
1.	Dr. R.S. Sabeenian	Introduction to Programming with MATLAB	COURSERA	Dec 2016
		Digital Image Processing	NPTEL	Oct 2016
2.	Prof. J.P. Senthil Kumar	Estimation for wireless communication MIMIO (OR) OFDM cellular and sensor networks	NPTEL	Mar 2016
		An Introduction to code theory		Mar 2017
3.	Dr. N. Sasirekha	Medical Image Analysis	COURSERA	Mar 2017
4.	Ms. T. Shanthi	Introduction to Programming with MAT Lab	COURSERA	Dec 2016
		Digital Image Processing	NPTEL	Oct 2016
5.	Dr. G.Ravi	Ad-hoc and sensor network	NPTEL	Mar 2017
6.	Ms. V. Meenakshi	Satellite Communication	COURSERA	Mar 2017
7.	Mr. P.M. Dinesh	Introduction to Programming with Matlab	COURSERA	Dec 2016
		Digital Image Processing	NPTEL	Oct 2016
8.	Ms. M. Amudha	Computer Architecture	NPTEL	Mar 2017

List of students Completed MOOC courses (2017-18)

S. No	Name	Course	MOOC	Month &year
1.	S.Muthunarayananan	Analog Communication	NPTEL	OCT 17
2.	M.Priyanka	Analog Communication Control Engineering	NPTEL	OCT 17
3.	V.Padmasaranyana	Analog Communication	NPTEL	OCT 17
4.	M.Sunmathi	Analog Circuits	NPTEL	OCT 17
5.	V.Sridevi	Analog Communication	NPTEL	OCT 17
6.	B.Kaviya	Analog Communication	NPTEL	OCT 17
7.	M.Jayavani	Analog Communication	NPTEL	OCT 17
8.	R.Kiruba	Introduction to Programming Analog Circuits	NPTEL	OCT 17

SMART class room

The academics use smart class rooms with ICT facility for delivering the lecture in a more efficient and effective manner.

Lecture Capture System:

Lecture Capture System is an automated audio-video recording system for class room lectures. It provides access to classroom video lectures and activities in online. Students can access the recorded video lectures and other materials from anywhere through laptops, tablets and Android platform by using URL: a.impartus.com (Lectures available for authenticated users)

Invited Lectures

For each course besides regular lecture, the department interacts with the industry and academic experts to deliver the lecture to the students based on industry experience and recent trends.

Online Live video lectures

Online Live video lectures are telecast for the students' easy understanding and latest updates.

Video lectures are one of the main tools for delivering course content in an effective manner.

It is during the process of creating a comprehensive instructional strategy in the course design phase, the instructor selects the best content delivery method.

It is a visual image which makes the instructor as a real person to make the students interact effectively.

Online video Lecture handled by Dr.Simar jeet Saini

Dr.Simarjeet saini

Adjunct Faculty,ECE,SCT

Co-founder and CTO

Savormetrics, University of Waterloo, Canada

He handled online sessions on 'Electromagnetic Fields' and 'Transmission Lines and Waveguides'. The sessions are handled live from University of Waterloo campus at 23:00 HOURS (PST).

Details of online live video lecture

S.no	Name	Year	Subject title	Date	No. of hours
1.	Dr.Simarjeet Saini	2016-17	Engineering Electromagnetic	13.03.2017 to 01.04.2017	30
2.	Dr.Simarjeet Saini	2017-18	Transmission lines and wave guides	04.09.2017 to 27.09.2017	36

Guidelines to identify weak students and mentoring system:

The faculty members regularly conduct meetings regarding progress of their mentees and are responsible to identify the students who scored less than 50% marks in their internals.

Under the HoD's direction, the faculty advisors identify the students who score below 50% marks in three or more subjects and below 75% attendance. These students are considered as academically weak students and this fact intimated to their parents.

Identification Criteria	Actions Taken
Students scoring less marks	• Special classes are being conducted after the regular college hours. • Peer teaching is conducted by senior and fellow students. • Counseling is given to the students by subject handling faculty, concerned faculty advisors, Class Counselors and HoD. • Students' performances are intimated to parents. • Remedial measures (counseling, classes, retest, and tutorial) are taken.
Failures in Semester End Examinations	• Examination failure reasons are analyzed. • Counseling is given to the student. • Coaching classes are conducted before the commencement of semester end examination. • Assignments are given for analytical courses. • Discussion on important questions and question bank.

Guidelines to identify bright students and mentoring system:

Identification Criteria	Actions Taken
Rank Holders, Semester Toppers & Subject Toppers	• To motivate to get Gold medals and cash prizes given on Graduation Day. • To motivate to get Mementos and cash prizes given in department functions. • Encouraging them to take part in Research Activities. • Motivating them to take part in national level competitions for projects. • Encouraging them to take part in cocurricular activities in national and international venues by offering 50% of total expenditure.
Students with First Class	• Motivation to continue Excellency. Encouragement to get nationwide exposure. • Motivating them to attend conferences, workshop, and other co-curricular activities.

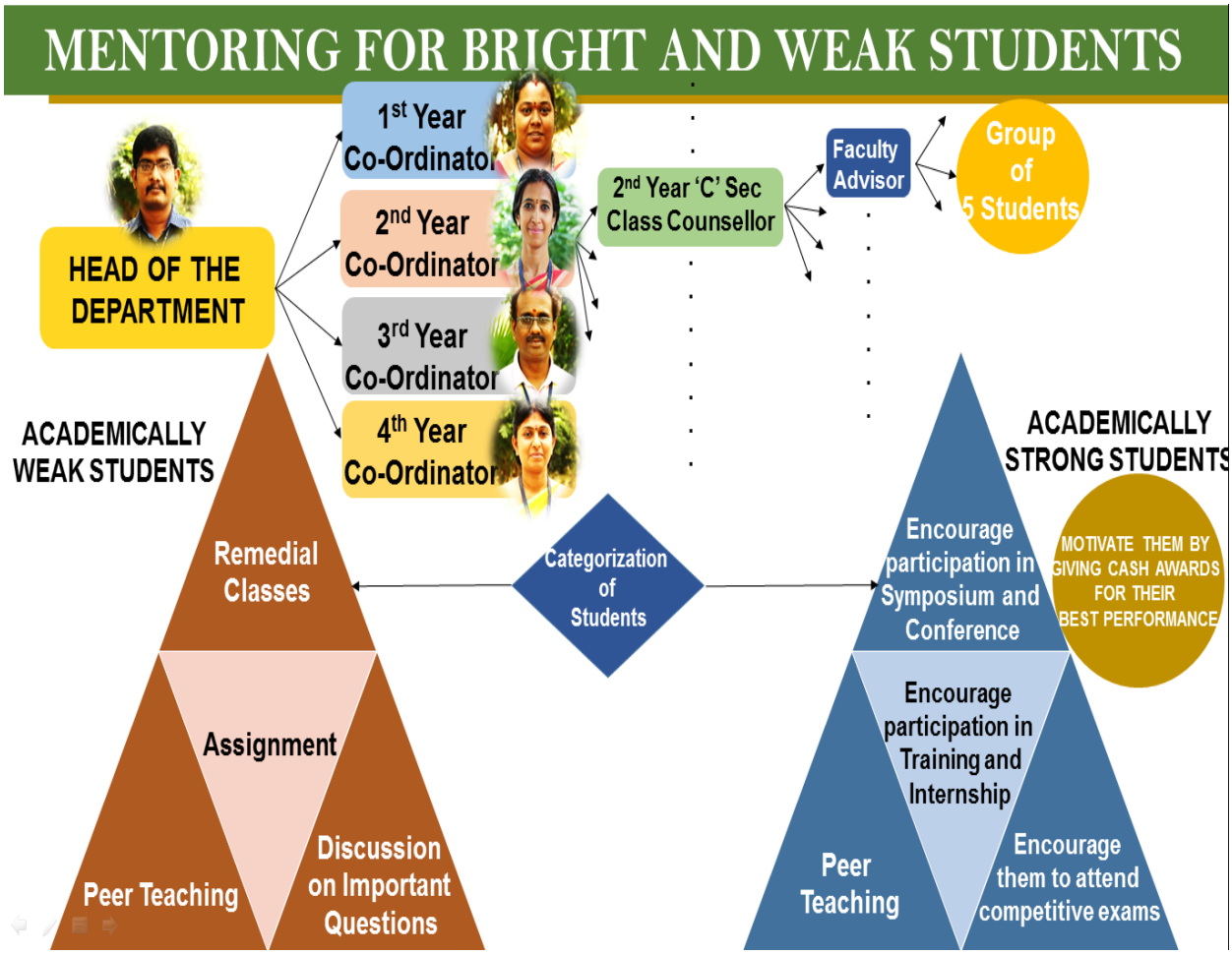


Fig:2.2.1 Process for Encouraging Bright Students and Assisting Weak Students

2.2.2 Quality of end semester examination, internal semester question papers, assignments and evaluation (15)

Continuous Internal Evaluation Test

For each course of the program, the Continuous Internal Evaluation Test is conducted to assess the student's knowledge and their understandability.

This continuous assessment process helps the faculty member to monitor the knowledge attainment of students.

Model Exam

- For each course of the program, a model examination is conducted prior to the semester end examination.
- This assessment process helps the students to prepare them for semester end examination and also gives the insight of overall understanding in the respective course.

Project Review

- Regular reviews are conducted for the students with the respective supervisors. The review team consists of professor of various grades. The idea behind the review is to monitor the progress in the review work and also to ensure that the student is following the right path towards the achieving the objectives of the project.
- A final assessment is conducted with the help of an external examiner. The scores are based on various parameters, fixed with a focus on the entire course of study.
- These kinds of scheduled reviews help the students to develop their research, communication and team management skills.

Semester End Examination

- For each course of the program, semester end examination is conducted.

- The answer scripts are evaluated by both the internal and external evaluators to assess the overall knowledge attainment of student in respective course.
- The external evaluators are utilized 70% for Question paper setting and 50% for evaluating the papers.
- The internal evaluators are utilized 30% for Question paper setting and 50% for evaluating the papers.

Assignment

- For each course the assignment is given to the students for developing their analytical and problem solving skills.

Seminar

- For each course the seminar is given to the students for developing their knowledge and communication skills.

Moodle

- For each course the Moodle online test is given to the students for developing their higher order thinking levels.

Initiatives to improve the Quality of Internal Question Papers:

- The faculty member who is responsible for course prepares the CIE test questions, model examination question papers, and Moodle question papers, based on the Bloom's taxonomy.
- For all UG courses, question papers include 50% questions on HOTS (Higher Order Thinking Skills) and 50% questions on LOTS (Lower Order Thinking Skills) and for all PG courses the ratio is 60% HOTS and 40% LOTS.
- These question papers are scrutinized by the Head of the Department and by senior professors.
- The COE approves the question papers in respect of CIE tests and Model examination. If any question paper is not satisfying the percentage of Bloom's taxonomy, then it is not accepted and resent to the faculty for improving the quality of questions level.

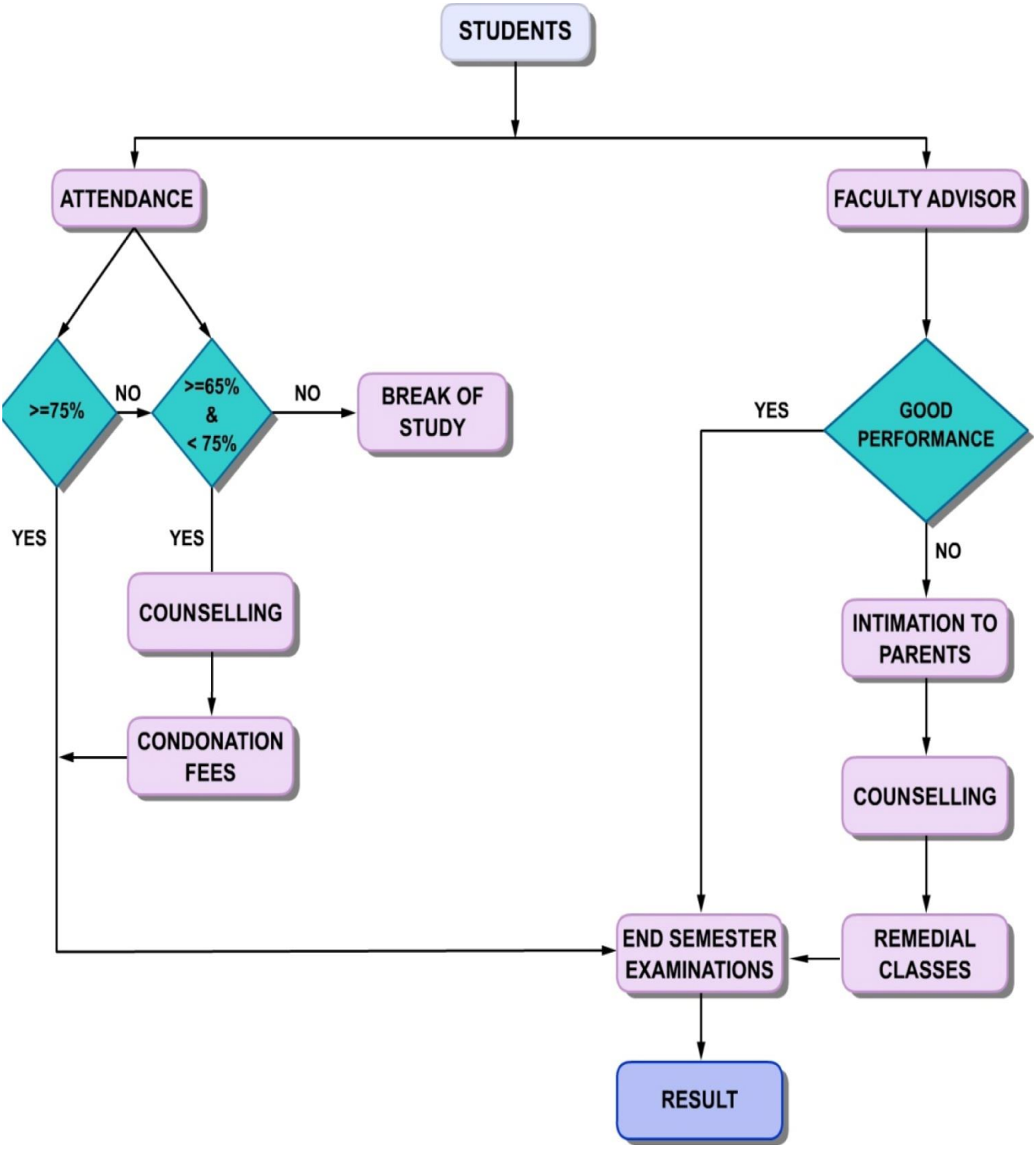


Fig: 2.2.2 System flow of evaluation of Continuous Assessment

Assessment procedure – Tests and Examinations

For each theory course, the assessment pattern for CIE test is illustrated in the following Table.

Theory Course Assessment pattern – Academic session 2015-2016

S.NO	Assessment	Marks	Weightage
1.	CIE TEST 1	50	06
2.	CIE TEST 2	50	06
3.	CIE TEST 3	50	06
4.	Model Examination	100	10
5.	*Assignment 1	20	06
6.	*Assignment 2 / Seminar/Quiz	20	06
	Total Internal		40

***Analytical and Design Courses shall be assessed based on two assignments**.

Theory Course Assessment pattern – Academic session -2016-2017

S.NO	Assessment	Marks	Weightage
1.	CIE TEST 1	50	06
2.	CIE TEST 2	50	06
3.	CIE TEST 3	50	06
4.	Online Test	100	07
5.	Model Examination	100	08
6.	# Attendance	100	05
7.	*Assignment 1	20	04
8.	*Assignment 2 / Seminar/Quiz	20	04
	Total Internal		40

Note: **1.Analytical and design courses shall be assessed on the basis of two assignments.**

2. The best two of three CIE tests shall be taken for internal mark calculations.

A final retest shall be conducted for the examination in which the students did not appear due to Medical leave / co-curricular and extra-curricular activities / any other special permission authorized by the Principal and Head of the Department. Students who wish to improve their CIE marks on any one course are also permitted to attend the retest with prior permission from the concerned Head of the Department.

Theory Course Assessment pattern – Academic session -2017-2018

S.NO	Assessment	Marks	Weightage
1.	CIE TEST 1	50	06
2.	CIE TEST 2	50	06
3.	CIE TEST 3	50	06
4.	Online Test	100	07
5.	# Attendance	100	05
6.	*Assignment 1	20	05
7.	*Assignment 2 / Seminar/Quiz	20	05
	Total Internal		40

A final retest shall be conducted for the examination in which the students did not appear due to Medical leave / co-curricular and extra-curricular activities / any other special permission authorized by the Principal and Head of the Department. Students who wish to improve their CIE marks on any one course are also permitted to attend the retest with prior permission from the concerned Head of the Department.

For each practical course, the assessment pattern for CIE shall be as illustrated in the following Table.

Practical Course Assessment pattern – Regulation 2010, 2010R, 2014, 2015 and 2015R

S.No	Assessment	Marks
1	CIE	60
2	SEE	40

CIE – Continuous Internal Evaluation

SEE – Semester End Examination

2.2.3 Quality of Student Projects (20)

Project team and supervisor mapping process:

1. Students are allowed to form the team, based on their area of interest.
2. The strength of the team may vary from 2 to 4, not exceeding 4.
3. An area of specialization is collected from each team such as embedded system, digital image processing, communication system, antenna design, VLSI, sensors and networking.
4. Area of interest from the faculty members also has been identified.
5. Mapping process is carried out between student team and faculty members' specialization.

Project identification:

1. The students may be attracted to the specific area by the following reasons,
    1. Industrial visits.
    2. In-plant training.
3. Guest lectures were conducted by the student association and professional societies such as IETE, IEEE, ISTE..,
4. Seminars, symposium and workshop are also conducted in the home network and other institutions.
5. Students perform the literature review based on the specific area.
6. Finally, they identify the proposed work based on the literature review.

Monitoring mechanism:

1. The student's has to report on their project status to the concerned supervisor periodically.
2. Initially conducting the zeroth review and further 3 more reviews are conducted.
3. A model viva voce examination on project work is conducted before the end semester examination.
4. The students should give a power point presentation during the review.
5. Review panel consists of project coordinator, supervisor, and faculty experts.
6. A project team will submit the project report in the prescribed format given by the University.
7. The guide lines for preparing the power point slides and report preparation are issued to the students. (It is given in the **Annexure 2.2.3**)
8. An end semester project viva voce is conducted with the panel of internal and external examiners. The external examiner from other institution / university is appointed by the controller of examinations.

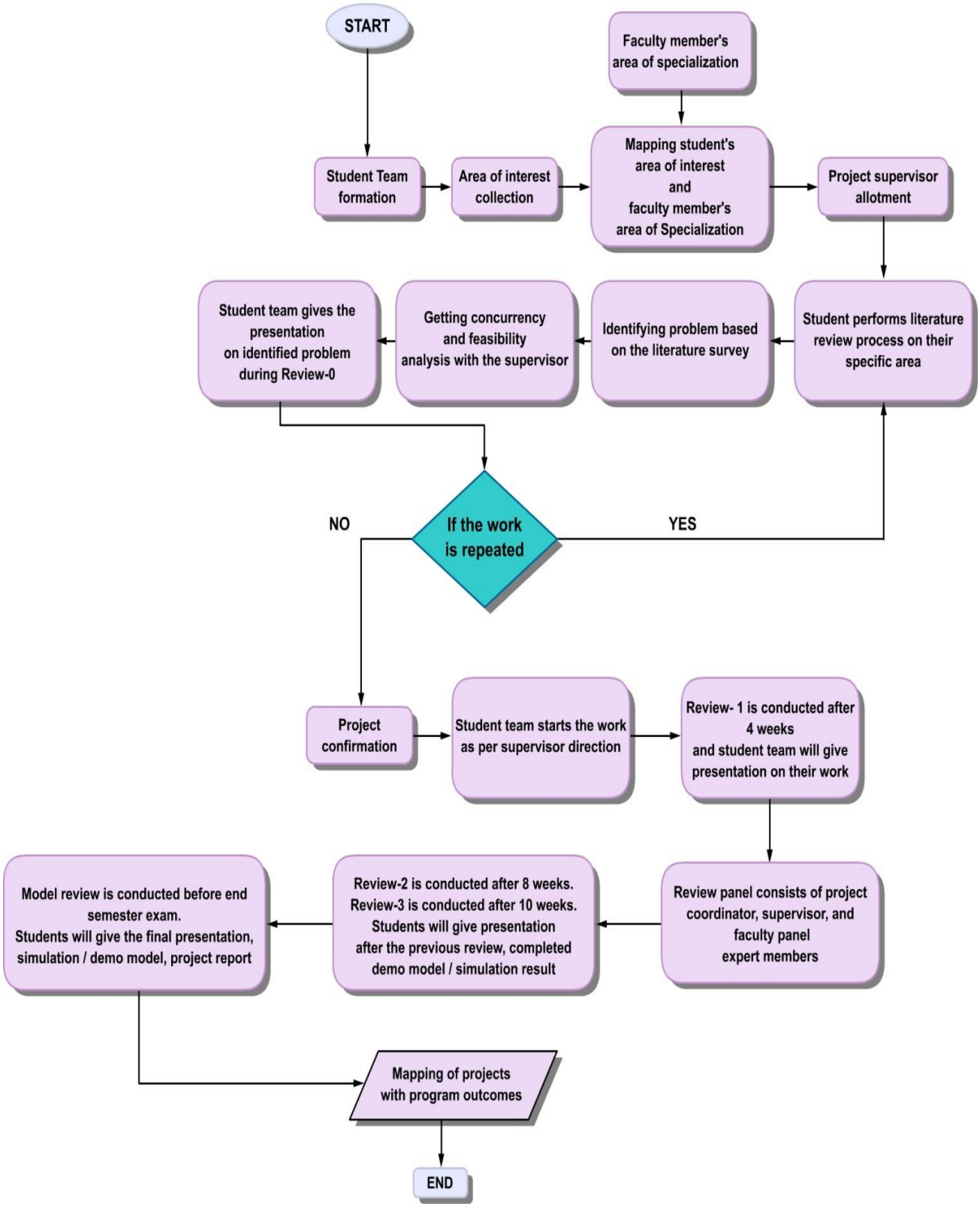
Demonstration of prototypes:

1. The students will demonstrate the working prototype models during the project review and end semester examination.

Enhancing relevance of the project:

2. Outcomes of the projects are encouraged to publish as a paper in conference / journals.

PROJECT PROCESS FLOW:



LIST OF PROJECTS:

Few samples of projects and program outcome mapping are given below. The complete list of projects are given in the annexure 2.2.3.

CAY (2017-2018).

Project No	Project Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1.	Wireless Health Mentoring System	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.	Real time GSM based skid cooling LPG Pipeline Monitoring System	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.	Advance fire detection in Video using Image Processing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

CAY (2016-2017).

Project No	Project Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1.	Microcontroller based device to detect vital signs using microwave signals.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.	Development of patch antenna for RFID for smart library management.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.	Recognition of handwritten tamil characters in palm leaf manuscripts.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

CAY m1 (2015-16)

Project No	Project Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1.	Eco-friendly air-conditioner.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.	Automated coach for sports using multiple moving object tracking and analysis.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.	Improving the performance of transform based super resolution	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

	using pre and post filtering techniques.															

Implementation details: (PO)

Sem	Name of the Lab	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
VII	Project Phase-I	1. Identify problems, formulate literature survey and analyze engineering problems.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		2. Design system component that acquire the needs for public health and environment consideration.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		3. Form a team for carrying the project and perform documentation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

		effectively.														
VIII	Project Work Phase II	1. Apply knowledge and demonstrate to manage project in multi-disciplinary areas	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		2. Design and conduct experiments to interpret data pertaining to engineering problems	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		3. Prepare documentation and presentation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

2.2.4. Initiatives related to industry interaction (10)

Initiatives taken:

- **Invited lectures** are conducted to the students by inviting experts from core and IT industry. These lectures results in lively discussion thus imparting current state of the art knowledge to the students and faculty members.
- **Online live lectures** by experts from International industry are arranged for the students to acquire an global knowledge in analytical courses like Engineering Electromagnetics, Transmission lines and wave guides which motivates them to involve in research, projects.
- **Workshops** are conducted for the students by the technical experts from industry to acquire and update the technical skills required for the current trends.
- **Industrial visits** are arranged for the students to give exposure on the industrial environment and work ethics.

Internships, Summer training or In plant training

- ❖ Students are allowed to undergo 2, 4, 6 or 12 weeks of internship at Research Organizations / Government Training Institutes / Public Sector Units / Reputed Academic Institutions / Reputed Industries/ Industry Oriented Courses / Online Courses between Semesters 6 and 7 and Semesters 7 and 8 during the summer/winter vacation and can earn 1, 2 or 3 credits respectively in lieu of industrial training.
- ❖ The industry / organisation is to be selected with the approval of the department consultative committee.

Training at ECE - Continuing Education Centre

- It is the department training centre which conducts certification courses to the students in the areas of PCB design &fabrication, Digital Image processing using open CV and Python, Basic C programming in Continuous Time & Discrete time signal using GNURADIO.

- The students are motivated by the faculty members, to take up online certification MOOC courses according to their areas of interests in NPTEL lectures, Coursera, Saylor academy, webinar from NI instruments.

MoU's signed with industries to emphasize on

i. Internship
ii. Project workshop for students
iii. Industrial visits
iv. Students specific training
v. Faculty Development Program

IMPLEMENTATION DETAILS

A. MoU details

The department is having various MOUs with industries to improve the career opportunities of our

students.

S.No	Name of the Company	Goal of MoU
1	Titan India private limited, Hosur	Research & Development
2	Texas Instruments	Teaching/Research lab facility
3.	SALEABS Electronics Engineers LLP, Salem	Internship and training
4.	KNOWVIC ,Bangalore	Training

B. Industry Supported Laboratories:

S.NO	Lab	Industry	Objective
1.	Digital Image Processing Lab	National Instruments	To get CLAD certification
2	Embedded system Lab	INTEL and Texas Instruments	To bridge the academia-industry gap, enhancing student employability, promoting innovation and creating an entrepreneurial ecosystem for youth through hands on technical training in advanced processor.

C. Invited Lectures , online live video lectures and workshops by industry experts:

Academic Year: 2017-2018

S.NO	Industry expert	Training related to the course	No of students attended	Topic	Duration
1.	Mr.R.Prabhakaran SoftwareDeveloper, INFOVIEW, Chennai.	Project Work Phase - I	140	Technical project management	21.07.2017
2.	Dr.S.Arumuga Perumal, Chariman,IETE Thiruvanthapuram	Project Work Phase - I &Embedded and Real	141	IOT and its future perspectives for smart cities in	16.08.2017
3.	Mr.Prabhu Manikandan Bankers academy, Salem	Soft Skills and Aptitude - I	171	Hands on training session on "Aptitude, and verbal	19.8.2017 to 21.8.2017
4.	Mr.K.P.Harsha Prasana, Mr. T. N. Raj Vignesh ,SALEABS Electronics Engineers LLP, Salem	Electronic Devices	171	Ground breaking project dreams for enhancing knowledge of budding engineers.	31.08.2017
5.	Dr.Simarjeet saini, Professor, University of Waterloo, and Chief Technology Officer, Nanolytix	Transmission Lines and Waveguides	187	Transmission Lines and waveguides	4.9.2017 to 27.9.2017
6.	Prof.Surya Narayana Rao, Distinguished Visiting Professor - ISRO, Bangalore	Microwave Engineering	135	Recent trends in Microwave Engineering	5.6.2017 6.6.2017 & 20.9.2017

7.	Mr.M.Nishanth Hardware Design Engineer, EmbDes Technology Pvt Limited,Bangalore	Embedded and Real Time System	90	Analog and digital hardware design	16.9.2017 & 17.9.217
8.	Mrs.S.Preethika, Associate Software Engineer, Robert Bosch Engineering and Business Solutions Ltd, Coimbatore.	Project Work Phase - I	141	Industry needs from fresher's	9.9.2017
9.	Mr.S.Sundara moorthy Managing Director, Sunshive Electronic Solutions, Coimbatore	Electronic Devices Laboratory	171	Do Your Engineering Rather Than Studying	26.09.2017
10.	Mr.Moorthy Enthu Technology Solutions India Private Ltd, Coimbatore	Digital Signal Processing	187	Digital signal processor.	13.10.2017
11.	Mr.Sunilkumar VIsolutions,Bangalore	Project Work Phase - I	141	NI lab view and Intro on NI Certified Lab view Associate developer	16.10.2017
12.	Mr.K.P.HarshaPrasana , Mr. T. N. Raj Vignesh , Salieabs Electronics Engineers	Embedded and Real Time System	140	Embedded and IOT	20.10.2017 and 21.10.2017
13.	Dr.C.Varadharaju, Assistant General Manager, Steel Authorities of India , SAIL Salem Salem-636 013	Human Resources Management	UG & PG students (141+16)	Human resources and development	5.10.2017

14.	Mr.Manoj Application Engineer, Digital Shark Technologies, Bangalore	Project Work Phase - I Project Work Phase - I I	141	IOT opportunities and challenges using MSB430	14.11.2017,
15.	Mr.Esakki, National Instruments, Bangalore.	Digital Image Processing	30	Engineering applications using LabVIEW	13.12.2017 to 29.12.2017
16.	Mr.Dhruv,MD, Asia-Pacific. Mr.Rashmikant Joshi,MD,Chennai. Mr.Harish,Marketing Manager,Chennai. Festo India.	Mini Project	180	Bionics	29.12.2017
17.	Dr.Mohammed Mansoor Roomi, Associate professor,ECE Thiyagarajar college of Engineering	Digital Image Processing	150	Visual Recognition – Opportunities to improve our lives	09.01.2018
18.	Mr.Aswin Gowtham Senior consultant, Livewire Corporate office, chennai	Computer Networks	70	Cyber security	13.2.2018
19.	Mr.S.Sundara moorthy Managing Director, Sunshive Electronic Solutions, Coimbatore	Electronic circuits	57	Hands on training on Industry ready Engineering	28.2.2018 & 1.3.2018
20.	Mr.K.Shiva, Team Lead, Accenture, Bangalore.	Soft skills and aptitude	169	5 Traits to be a successful professional	21.03.2018

21.	Diparko Das Sharma, KNOWVIC,Bangalore	Embedded and Real Time System and Embedded system laboratory	107	Python Programming	19.5.2018 to 27.5.2018

Academic Year: 2016-2017

S.NO	Industry expert	Training related to the course	No of students attended	Topic	Duration
1.	Dr. T.M. Srinivasan, Professor Yoga & Physical Sciences, S-VYASA university	Transmission Lines and Waveguides	146	Electromagnetics in Rehabilitation &Science of Yoga	12.09.2016
2.	Dr. Cyril prasanna raj Prof/Dean, Dept.of CSE. MS Engineering College Bangalore.	Project Work Phase- I	146	Challenges And Opportunities: Core Companies, Higher Education And	21.09.2016
3.	Dr.B.R.Sujatha Professor &Head, Dept. Of ECE Malnad College of Engineering, Hasan, Karnataka.	Computer Networks	146	CHAOS functions on Cryptography	24.10.2016
4.	Dr.Simarjeet saini, Chief Technology Officer,Nanolytix, Canada & Professor, University of Waterloo, Canada	Engineering Electromagnetics	45	Engineering Electromagnetics	13.3.2017 to 1.4.2017 3weeks (30 Hours)
5.	Mr.V.Murugappan, Project Manager , WIPRO Technologies,	Project Work Phase - I I	120	Challenges and Opportunities: in IT	22.03.17
6.	Dr.G.K.D.Prasanna Venkatesh, Professor & Dean/ Research SNS College of Tech, Coimbatore	Wireless Networks	120	Recent trends in Wireless Communication	22.03.17

7.	Mr.Prasad Director & Inventor ARMSUN Multi-Industrial Research and Technology Licensing company	Professional Ethics	50	Patent and Copyrights	25.03.17
8.	Mr.Sunil& Mr.Manimaran VI Solutions,	Digital Image Processing	50	LabVIEW for Machine Learning of	11.08.16 & 12.08.16
9.	Mr.K.P. Harsha Prasana SALIEABS Electronics Engineers LLP, Salem	Mini project	145	Arduino and its interfacing with sensors	15.3.2017

Academic Year: 2015-2016

S.NO	Industry expert	Training related to the course	No of students attended	Topic	Duration
1.	Mr. Raghav Ankur , Technical trainer Ms. Yamini Shali Foundation for Innovation and Collaborative Education Private Limited, Bangalore	Embedded and Real Time System	54	INTEL–FICE training on "Intel Galileo boards and interfacing"	7.7.2015 to 10.7.2015
2.	Mr. Manav Subodh, National Head for Intel & The Senior Fellow at UC Berkeley	Project Work Phase I	123	FICE-1M1B Ideation Camp 2015	13.7.2015 & 14.7.2015
3.	Prof.Surya Narayana Rao, Distinguished Visiting Professor - ISRO,Bangalore	Satellite Communication	142	Software defined radios	19.3.2015 & 20.3.2015

4.	Mr.R.Devaraj, CEO, Real Power Vision, Bangalore.	PACE-III	140	Entrepreneurship and Present Scenario in	11.08.2015
5.	Mr.Gangadharan.C Head-Technical Support Group, Real Power Vision,	Project Work Phase	142	Job Opportunities' for Engineering Students	11.08.2015
6.	Mr.Sunil VI Solutions, Bangalore	Digital Image Processing	50	Digital Image ProcessLabVIEW	13.08.2015
7.	Mr.S.Aravind, Divisional Manager, The JOB GLAD Division, Synergy Life – Group of Companies	Professional Ethics and Human Values	65	Management Ethics through Games	13.08.2015 & 14.08.2015
8.	Dr.T.Shanmuganathan Assistant Professor, Pondicherry University, Pondicherry.	Transmission Lines and Waveguides	146	Microstrip Lines	05.09.2015
9.	N.Raj Vignesh, Mr.Harsha Prasanna Salieabs Electronics Engineers LLP, Salem.	Project Phase II	40	IoT	4-2-16 To 6-2- 16
10.	Mr.S.Sundaramoorthy,M.D, Sunshive electronic solutions	Electron Devices and circuits	185	Do your engineering rather than studying	06.02.16
11.	Mahadevan A.S Divison manager	Embedded and Real Time	142	Advanced Microcontrollers	18.2.2016 to
12.	Mahadevan A.S Divison manager	Embedded and Real Time	142	Advanced Microcontrollers	23.3.2016 to

Impact Analysis:

- Students cleared NPTEL exams and got certification in various courses.
- Students can able to publish papers in national and international conferences and journals
- Students won prizes in various state level, national and international level project design contest
- Growth of technical skill among students in latest technologies.
- Take less training in industry after joining the company.
- Have an edge in the job market
- More focused growth for students
- Easy transition into a job

2.2.5. Initiatives related to industry internship/summer training (10)

Initiatives:

A. **Industrial Visit**:

The department organizes industrial visits for students once in a year/semester to relevant organizations/companies to enable the students to experience the practical implementation of theoretical knowledge in real world. This gives them an insight of exposure to the industrial environment and the work culture ethics in Industries. The visits also help the students to learn about people management, which is essential in any organization.

B. **Internship:**

Internship is encouraged among students through the implementation of choice based credit system and making following changes in the curriculum.

- Students are allowed to undergo 2, 4, 6 or 12 weeks of internship at Research Organizations / Government training institutes / Public sector units / Reputed academic institutions / Reputed industries/ Industry oriented courses / Online courses between semesters 6 and 7 and semesters 7 and 8 during the summer/winter vacation and can earn 1, 2 or 3 credits respectively in lieu of industrial training.
- The industry/organisation is to be selected with the approval of the department consultative committee. The internship has to been taken on a continuous basis for the periods mentioned and in the same organization or organizations that are similar to those of the previous internship(s).
- A student earning three credits in internship shall be permitted to drop one professional elective/open elective. However, if the number of credits earned is only 1 or 2, these credits shall not be considered for dropping a course or for classification of the degree but will be indicated in the mark sheet.

- The implementation of choice-based credit system in 2015 Regulation helps the students to choose the open elective in the academic curriculum of their own interest and motivates them to do project work effectively by taking up internships in industry.
- Mini project is included as one of the practical course from the regulations 2014 curriculum which motivate the students to prepare them to take projects in industry through internships.
- Faculty members, class counsellors and faculty advisors motivate the students to do quality projects and to present it in conferences and in project exhibitions conducted by industries,government sectors like smart hackathon, etc.
- Students are encouraged to go for industry visit, implant training and to take up certification courses to update their knowledge in latest technologies.
- Faculty members interact with the industrial experts and give guidelines, suggestions, contact details of an internship ,provide the students recommendation letters and other necessary supports.
- The alumni coordinator constantly interacts with alumni those who are working in the industries and request them to provide necessary guidelines and supports for the internship of their juniors.

C. Summer training or In plant training:

At the end of every semester or in vacation time the students are allowed to carry out internship in reputed industries/companies to get practical exposure to the technologies implemented in industries. It helps the students to bridge the gap between the subject's studies and industrial need.

D. Training at ECE-Continuing Education Centre:

It is the department training centre which gives technical training to the students in the areas of PCB design &fabrication, Digital Image processing using open CV and Python, Basic C programming in Continuous Time & Discrete Time signals using GNURADIO

Implementation details:

A. Student Industrial Visit:

Academic Year 2017-2018

S.No	Company Name	Company Sector	Incorporation Status	Discipline	Date From	Date To	No of Students
1	ISRO Trivandrum	Engineering	Government Body	Electronics Engineering and Allied	18.8.17	18.8.17	145
2	Keltron state electronics development corporate limited, Trivandrum	Engineering	Government undertaking	Electronics Engineering and Allied	17.8.17	17.8.17	145
3	Sunshive Electronic Solutions, Coimbatore	Engineering	Private	Electronics	12.12.17	12.12.17	25

Academic Year 2016-2017

S. No	Company Name	Company Sector	Incorporation Status	Discipline	Date From	Date To	No of Students
1	JVS electronics	Engineering	Private	Electronics Engineering and Allied	05.8.16	6.8.16	103
2	Sunshive Electronic Solutions, Coimbatore	Engineering	Private	Electronics	28.7.16	28.7.16	50

Academic Year 2015-2016

S.No	Company Name	Company Sector	Incorporation Status	Discipline	Date From	Date To	No of Students
1	JVS electronics	Engg	Private	Electronics Engineering and Allied	22.7.15	23.7.15	90
2	Kerala electrical limited	Engg	Government Body	Electronics Engineering and Allied	20.7.15	21.7.15	110
3	ACE components &electronics pvt ltd	Telecom	Private	Electronics Engineering and Allied	19.8.15	21.8.15	120
4	Karnataka electricity regulatory commission	Engg	Government Body	Electronics Engineering and Allied	19.8.15	21.8.15	120

B. Student Internship:

Academic Year: 2017-2018

S.No	Student Name	Year	Company Name	Duration/ joining date for internship
1.	S.Ashwini	IV	Eurotech Controls & Instruments(P) Limited - Chennai	20.12.2017 (3 months)
2.	R.Harideepak	IV	Enthu Technology solutions India private Limited, Coimbatore	8.1.2018 (2 months)
3.	V.Aravind kumar	IV	Enthu Technology solutions India private Limited,	8.1.2018 (2 months)

			Coimbatore	
4.	O.Priya	IV	Checktronics India Private Limited	4.12.2017 (4 months)
5.	R.Naveen Raj	IV	Abhimanyu Group Inc	11.12.2017 (4 months)
6.	S.Guru Narayanan.	IV	Magnum Honda	5.12.2017 (4 months)
7.	Y.Vidhya Lakshmi	IV	Zoho Corporation Private Limited	6.12.2017 (4 months)
8.	S.Shriram	IV	BSNL – Rajiv Gandhi Memorial Telecom Training center	19.12.2017 (1 month)
9.	S.Santhosh,	IV	BSNL – Rajiv Gandhi Memorial Telecom Training center	19.12.2017 (1 month)
10.	,A.Victor Immanuel	IV	BSNL – Rajiv Gandhi Memorial Telecom Training center	19.12.2017 (1 month)
11.	Z.Saramma	IV	GGtronics India private limited	01.01.2018 (6 months)
12.	K.Tharani	IV	New Qbitronics Private limited	26.12.2017 (3 months)
13.	Mr.S.Hari Prakash	IV	Schneider Electric India private Limited ,Bangalore	17.1.2018 (3 months
14.	V.Dhana surya	IV	Schneider Electric India private Limited ,Bangalore	17.1.2018 (3 months)
15.	P.Meena	IV	Meltronics system Tech, Bangalore	26.2.2018 (3 months)
16.	Thenaruvi P	IV	Meltronics system Tech, Bangalore	26.2.2018 (3 months)
17.	Monisha.R	IV	Meltronics system Tech, Bangalore	26.2.2018 (3 months)
18.	Chinthamani S	IV	Meltronics system Tech, Bangalore	26.2.2018 (3 months)
19.	Dharshana G	IV	SAIL-Salem	15.12.2017

				(3 Months)
20.	Akancha kumari	IV	SAIL-Salem	15.12.2017 (3 Months)
21.	Hari Prasath.G	IV	EmdDes Technologies Pvt Limited,Bangalore	21.2.2018 (3 months)
22.	M.Sivakumar	III	URBEE Technovative Pvt Limited, Hosur	8-5-2018 (3 months)

Academic Year: 2016 -2017

S.no	Student Name	Year	Company Name	Duration/ joining date for internship
1.	S.Akshayadhaarani	IV	Think & Learn Private Limited	19.12.2016 (3.5 months)
2.	S.Krishna kumar	IV	Open text	1.12.2016
3.	M.Parthipan	IV	I4U LABS PRIVATE LIMITED	5.12.2016 (3.5 months)
4.	S.Vibhu	IV	Think & Learn Private Limited	19.12.2016 (3.5 Months)
5.	M.Sandhiyasri	IV	Think & Learn Private Limited	19.12.2016 (3.5 Months)
6.	Sai Venkata Vinay Chittuluru	IV	Checktronics India Private Limited	20.12.2016 (3.5 months)
7.	Sriram. R	IV	Appco Groups	16.08.2016 (2 months)
8.	K.Nagendra Hari Karthick	IV	DEEVITA Technologies India Private Limited	19.01.2017 (3.5 Months)
9.	E.Arulmouzhi	IV	DEEVITA Technologies India Private Limited	19.01.2017 (3.5 Months)
10.	R.Sriprasath	IV	Imperial Management	01.02.2017 (2 months)

Academic Year: 2015 -2016

S.no	Student Name	Year	Company Name	Duration/ Joining date for Internship
1	Haja Kamaludeen Jahanger	IV	Zoho Corporation Private Limited	02-01-2016 (3 months)
2	Nandha kumar.	IV	Green Circuits India Pvt. Ltd	30.11.2015 (1 month)
3	Narendran .P	IV	Green Circuits India Pvt. Ltd	30-11-2015 (1 month)
4	S.Rahul	IV	Tekcel automation private Limited	30.11-.2015 (1 month)
5	Nishanth .M	IV	Tekcel automation private Limited	30.11.2015 (1 month)
6	Madhu priya .M	IV	Tata Consultancy Services Limited	04.01.2016 (3 months)
7	Manigandan .M	IV	EmbDes Technologies	16.12.2015 (3.5 months)
8	Yashasree	IV	Tekcel automation private Limited	30.11.2015 (1 month)

C. Summer training/In plant Training:

Academic Year: 2017 -2018

S.NO	Company Name	Topic /Area	Company Sector & Incorporation Status	Date From	Date To	Year	No of Students
1	Exor Robotics Private limited	Arduino	Engineering Private	12.7.17	14.7.17	IV	6
2	Bharat Sanchar Nigam Limited,	Fundamentals of Telecommunicat	Telecom Government	27.11.17	1.12.17	III	12
3	Enthu Technologies, Coimbatore	Rasperry PI	Private Engineering	26.12.17	30.12.17	III	17
4	TITAN, Hosur	Making of watches and case assembly	Private Manufacturing	15.5.17	20.5.17	III	1
5	TANMAG, Salem	Manufacturing of magnesites	Government Mining	20.06.17	22.6.17	III	2
6	Sunshive Electronic Solutions, Coimbatore	PCB Designing ,circuit creation, trouble shooting & product manufacturing	Private Engineering	27.11.17	29.11.17	III	11
				11.12.17	18.12. 17	II	1
7	VISTEON Electronics,Chennai	Industry safety Awareness & PCB	Private Engineering	29.05.17	2.6.17	III	1

8	Bharat Sanchar Nigam Limited Trichy	Fundamentals of Telecommunications	Telecom Government	27.11.17	1.12.17	III	1
9	Labview CLAD Certification	Programming using LABVIEW	Private Engineering	4.12.17	22.12.17	III	1
10	UNIQ Technologies	Embedded Systems	Engineering Private	27.12.17	29.12.17	II	3
11	Bharat Sanchar Nigam Limited, RGMTTC, Chennai	IPv6	Telecom Government	22.1.18	24.1.18	III	12
12	Bharat Sanchar Nigam Limited, RGMTTC	Telecom	Telecom Government	26.2.18	5.3.18	III	14

Academic Year: 2016 – 2017

S.NO	Company Name	Topic /Area	Company Sector & Incorporation	Date From	Date To	Year	No Of Students
1	Bharat Sanchar Nigam Limited, Hosur	Fundamentals of Telecommunications	Telecom Government	23.05. 17	27.05. 17	II	1
2	Sona	PCB design and	Engineering	05.06.17	10.06. 17	II	1

	continuing education training centre, Sona college of Technology , Salem	Fabrication	Private				
3	UNIQ Technologies, Chennai	Embedded Systems	Engineering Private	16.05.20 20.05.2017 01.06.2017 29.06.2017	20.05.20 25.05.2017 05.06.2017 03-07-2017	II & III	22
4	Bharat Sanchar Nigam Limited, Salem	Fundamentals of Telecommunications	Telecom Government	15-05-2017 29-5-2017	20-5-2017 2-6-2017	II III	1 3
5	Steel Authority of India Limited, Salem	Centralized Electrical Maintenance	Basic Metal and Steel Public ,central	07-06-2017 20-06-2017	9-6-2017 23-6-2017	II II	1 1
6	Thermal Power Station ,	Control and instrumentation , meter and	Manufacturing Government Body	5-6-2017	9-6-2017	III	2

Academic Year: 2015-2016

S.No	Company Name	Topic /Area	Company Sector & Incorporation	Date From	Date To	Year	No of Students
1	Bharat Sanchar Nigam Limited, Salem	Fundamentals of Telecommunications	Telecom Government	23.05.2015	27.05.2015	II	**1**
2	Foundation for Innovation and Collaborative Education (FICE) private limited, Bangalore & M.S. Ramaiah Institute of Technology	Developing project prototype	Private	27 .7.2015	31.7.2015	III & IV	23

D. Training at SONA Continuing Education Center:

Academic Year	Topic	Name of the Expert	From	To	No of students attended
2017-2018	Basic C programming in Continuous Time & Discrete time signal using GNURADIO	Dr.R.S.Sabeenian Mr. P.M.Dinesh Mr.R.Anand	11.9.2017	28.9.2017	29
	Digital Image processing using open CV and Python	Dr.R.S.Sabeenian Mr. P.M.Dinesh Mr.R.Anand	29.5.2017	3.6.2017	18
	PCB design & fabrication	Mr. S.Sree Southry Mr. A.Ayub Khan	18.09.2017	03.10.2017	9
2016-2017	PCB design & fabrication	Mr. S.Sree Southry Mr. A.Ayub Khan	05.06.2017	10.06.2017	17

Impact analysis:

- The student's technical skills are improved.
- Student's placement in core companies is improved.
- The student's placement percentage has improved compared to the previous years.
- The scores secured in competitive exams like GATE, CAT, TANCET is improved.
- Students gain valuable work experience.
- Students have an edge in the job market
- Students participate in more technical events

The list of students attended the inplant training or summer training are attached in

Annexure 2.2.5

CRITERION 3

COURSE OUTCOMES AND PROGRAM OUTCOMES

3.1 Establish the correlation between the courses and the Program Outcomes (POs) & Program Specific Outcomes (25)

NBA defined Program Outcomes as mentioned in Annexure I and Program Specific Outcomes as defined by the Program.

Program Articulation Matrix

Regulation 2014

Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2
U14ENG101	Technical English - I					2	2	2	3	3	3	3	3	2	2
U14MAT102	Multivariable Calculus and Matrices	3	3	3	3	1	1					1	2	2	2
U14PHY103	Engineering Physics	3	1	1									1	2	2
U14CHE104	Engineering Chemistry - I	3	1	1									1	1	1
U14BEE106	Basic Electrical and Electronics Engineering	3	3	3	3					2		2	2	3	3
U14FOC105	Fundamentals of Computing	2		2	1	2	1			2		1	1	2	2
U14PCL107	Physics & Chemistry Laboratory - I	1						1		2			1	1	1
U14CPL108	Computer Practice Laboratory														

		2	2	2	2	2	1			2			2	2	2
U14EPL109	Engineering Practices Laboratory	3	3	3	3					2		2	2	3	3
U14ENG201	Technical English – II					2	2	2	3	3	3	3	3	2	2
U14MAT202	Vector Calculus, Differential Equations and Complex Analysis	3	3	3	3	1	1					1	2	2	2
U14PHY203	Material Science	3	1	1									1	2	2
U14CHE205A	Chemistry for Electrical and Electronics Engineers	3	1	1									1	1	1
U14CPR206	Programming in C	2	2	2	2	2	1			2			2	2	2
U14EGR207	Engineering Graphics	2		2		1	1					1	1	1	1
U14PCL208	Physics & Chemistry Laboratory – II	3	1	1									1	1	1
U14CPL209	C Programming Laboratory	2	2	2	2	2	1			2			2	2	2
U14BEEL210	Basic Electrical and Electronics Engineering Laboratory	3	3	3	3					2		2	2	3	3
U14GE301A	Transforms and Partial Differential Equations	3	3	1	2								3	3	3
U14EC302	Electron Devices and Circuits	3	3	3	3	3	1			1	1	2	2	3	3

U14EE310	Electrical Engineering	3	3	2	2	2	2	2	2		2	2	2	1	1
U14EC303	Digital Electronics	3	3	3	3	1	1				1	2	2	3	3
U14EC304	Signals and Systems	3	3	3	3	1						2	2	3	3
U14CHE304	Environmental Science			1	1		3	3	3	3		1	2	1	1
U14GE302	Personality and Career Enhancement - I				1		2			3	3	3	3	2	2
U14EC305	Electronic Circuits Laboratory	2	2	2	2	1				2		3	1	3	3
U14EC306	Digital Electronics Laboratory	2	2	2	2	1				2		3	1	3	3
U14GE303	Communication Skills Laboratory	1	1			1	2	2	2	2	3	3	2	2	
U14MAT401C	Probability and Random Processes	3	2		1		1					2	1	2	2
U14EC401	Electromagnetic Field	3	2	2	3	1	1					2	1	3	3
U14EC402	Electronic Circuits	3	2	2	3	1	1					2	1	3	3
U14EC403	Linear Integrated Circuits	3	2	2	3	1	1					2	1	3	3
U14EE407	Control Systems	3	2	2	3	1	1					2	1	2	1
U14GE301A	Personality and Career Enhancement - II			1					3	3	3	1		1	1
U14EC404	Measurements and Instrumentation	3	3	3	2	1	1	2				2	2	3	3

U14EC405	Linear Integrated & Circuits Laboratory	3	3	3	3					3	1	3	1	3	3
U14EC406	Electronic Circuits and Simulation Laboratory	3	3	3	3					3	1	3	1	3	3
U14MAT501B	Numerical Methods for Engineering Computation	3	3	2	2	1	1					1	2	2	2
U14EC501	Analog Communication System	3	3	2	2	1	1					2	2	3	3
U14EC502	Digital Signal Processing	3	3	2	3	2	1					2	2	3	3
U14EC503	Transmission Lines and Waveguides	3	3	1	3	1	1						2	3	3
U14EC504	Microprocessor and its applications	3	1	3	2	2	1	2				2	2	3	3
U14EC505	Computer Networks	1	3	3	3	1	2					2	2	3	3
U14GE501	Personality and Career Enhancement - III			1					3	3	3	1		1	1
U14EC506	Microprocessor Laboratory	3	2	3	2	1	3				2	2	2	3	3
U14EC508	Computer Networks Laboratory	1	1	3	3	1		1		2			2	3	3
U14EC507	Digital Signal Processing Laboratory	3	2	3	2	3	2				2	2	2	3	3
U14EC601	Digital Image processing	3	3	3	3	3					2	2	2	3	3

U14EC602	Digital Communication	3	2	2	1	3					2	2	2	3	3
U14EC603	Antenna and Wave Propagation	3	3	3	3	3	1				2	2	2	3	3
U14EC604	VLSI Design	3	2	2	2	3	1				2	2	2	3	3
U14EC605	Micro controller and RISC Architecture	3		3		3	2				2	2	2	3	3
U14EC606	Medical Instrumentation	3				3	2				2	2	2	3	3
U14GE601	Personality and Career Enhancement - IV			1					3	3	3	1		1	1
U14EC607	Communication Laboratory (Analog, Digital and RF)	3	3	3	3	2				3		2	2	3	3
U14EC608	VLSI Laboratory	3	3	3	3	3				3		2	2	3	3
U14EC609	Digital Image Processing Laboratory	3	3	3	3	3				3		3	2	3	3
U14EC610	Mini Project	3	3	3	3	3	3	3	2	3	3	3	3	3	3
U14GE701	Professional Ethics and Human Values	1					3	3	3	3	3	2	2	1	1
U14EC701	Wireless Networks	3		1		2	2					2	2	3	3
U14EC702	Optical Fiber Communication	3		1	2							2	2	3	3
	Microwave	3	3	3	2	2		1				2	2	3	3

U14EC703	Engineering														
U14EC921	Elective – I Embedded and Real-time systems	3	1	3	1	3	3					3	3	3	3
U14EC920	Elective-III Nano Electronics.	3	1	3	1	3	3					3	3	3	3
U14EC704	Optical and Microwave Laboratory	3	3	2	1						2	3	3	3	3
U14EC705	Electronic System Design Laboratory	3	3	3	3	3	1					3	3	3	3
U14EC706	Project Work Phase - I	3	3	3	3	3	3	2	3	3	3	3	3	3	3
U14EC801	Cellular and Mobile Communication	3		1		3	2				1	2	2	3	3
U14EC802	Disaster Management	3	2			2	3	3	3	3	3	3	3	2	2
U14EC922	Elective Satellite Communication	3	2		2		1				2	2	2	3	3
U14EC925	Elective Telecommunication and Switching Networks	3		3		3	2				2	2	2	3	3
U14EC926	Elective Television and Video Engineering	1	1	2	3	3		2		1	3	1	1	3	3
U14EC803	Project Work Phase - II	3	3	3	3	3	3	2	3	3	3	3	3	3	3

Table B.3.1a

Course Articulation Matrix Regulation 2014

Course Code	Course Title	CO	Course Outcome Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
U14ENG101	Technical English - I	CO1	Use Grammar components effectively in both written and spoken communication					2	2	2	3	3	3	3	3	2	**2**
		CO2	Develop and demonstrate good listening skills for academic and professional purposes					2	2	2	3	3	3	3	3	2	**2**
		CO3	Draw conclusions on explicit and implicit oral information					2	2	2	3	3	3	3	3	2	**2**
		CO4	Develop effective reading skills and reinforce the skills required for grammar and vocabulary building					2	2	2	3	3	3	3	3	2	**2**

		CO5	Read for gathering and understanding information and following directions					2	2	2	3	3	3	3	3	2	**2**
U14MAT102	Multivariable Calculus and Matrices	CO1	Determine Eigen vectors and reduce matrices from one form to another form	3	3	3	3	1	1					1	2	2	**2**
		CO2	Interpret curvature, calculate the radius of curvature, center of curvature and find the evolutes, involutes, envelope of curves and solve partial differentiation	3	3	3	3	1	1					1	2	2	**2**
		CO3	Work out functions of several variables, Jacobian's, Taylor's Theorem, compute the maximum & minimum values and Lagrange's Method	3	3	3	3	1	1					1	2	2	**2**

		CO4	Work out area of plane of region, length of the plane curve and area of surface of solid.	3	3	3	3	1	1					1	2	2	**2**
		CO5	Work out the double & triple integrals, discuss the change of order of integration, multiple integrals to find the area & volume	3	3	3	3	1	1					1	2	2	**2**
U14PHY103	Engineering Physics	CO1	Explain the theory of crystals, structure of crystals and defects in crystals	3	1	1									1	2	**2**
		CO2	Explain the theory of optoelectronics with applications	3	1	1									1	2	**2**
		CO3	Explain the concepts of electrodynamics as applicable to engineers	3	1	1									1	2	**2**
		CO4	Describe quantum mechanics theory and basic wave equations in	3	1	1									1	2	**2**

		CO5	Analyze different types of microscopes and discuss the theory of nanophysics	3	1	1									1	2	**2**
U14CHE104	Engineering Chemistry	CO1	Analyze the types of polymers, polymerization reactions, polymerization techniques and fabrication methods of polymers for engineering applications	3	1	1									1	1	**1**
		CO2	Discuss the basic principles of electrochemistry and its applications	3	1	1									1	1	**1**
		CO3	Analyze the types of corrosion and the various control methods for corrosion prevention	3	1	1									1	1	**1**
		CO4	Describe the construction, working principle and applications of energy storage device for electronic appliances	3	1	1									1	1	**1**

		CO5	Discuss the principles, advantages and applications of organic electronic materials used in electronic devices.	3	1	1									1	1	**1**
U14BEE106	Basic Electrical and Electronics Engineering	CO1	Explain the fundamentals of DC machines	3	3	3	3					2		2	2	3	**3**
		CO2	Explain the fundamentals of AC machines	3	3	3	3					2		2	2	3	**3**
		CO3	Explain the principles of Magnetic circuits	3	3	3	3					2		2	2	3	**3**
		CO4	Explain the basics of Electronics and details of Diode and Zener diode	3	3	3	3					2		2	2	3	3
		CO5	Evaluate various Number Systems and to realize the logic functions by using various gates	3	3	3	3					2		2	2	3	3

U14FOC105	Fundamentals of Computing	CO1	Examine the use of databases in the context of managing large amount of data	2		2	1	2	1			2		1	1	2	**2**
		CO2	Identify basic components of a computer system	2		2	1	2	1			2		1	1	2	**2**
		C03	Explain from various viewpoints the purpose of Database Management Systems	2		2	1	2	1			2		1	1	2	**2**
		CO4	Apply knowledge of computing and mathematics appropriate to the discipline	2		2	1	2	1			2		1	1	2	**2**
		CO5	Analyze the local and global impact of computing on individuals, Organizations and society.	2		2	1	2	1			2		1	1	2	**2**
		CO1	Construct an experimental setup to form interference fringes and use it to determine the thickness of the given thin wire	1						1		2			1	1	**1**

U14PCL107	Physics & Chemistry Laboratory - I	CO2	Demonstrate by means of an appropriate experiment the poor thermal conductivity of a given bad conductor	1						1		2			1	1	**1**
		CO3	Estimate the amount of total, temporary and permanent hardness in the given sample of water	1						1		2			1	1	**1**
U14CPL108	Computer Practices Laboratory	CO1	Identify the different ports, peripherals of computer hardware	2	2	2	2	2	1			2			2	2	**2**
		CO2	Partition ,format hard disks and Install system software and application software	2	2	2	2	2	1			2			2	2	**2**
		CO3	Modify control panel settings, install antivirus software, backups, archival utilities and write in CD	2	2	2	2	2	1			2			2	2	**2**

U14EPL109	Engineering Practices Laboratory	CO1	Verify Ohm's Law, Kirchhoff's Law and measure power and power factor for RC, RL, RLC Series and Parallel circuit.	3	3	3	3					2		2	2	3	**3**
		CO2	Study the pipe connection requirements for pumps and turbines and demonstrate on basic machining	3	3	3	3					2		2	2	3	**3**
		CO3	Evaluate the VI Characteristics of PN Junction Diode, Zener Diode and verify the truth table for logic gates.	3	3	3	3					2		2	2	3	**3**
U14ENG201	Technical English – II	CO1	Frame sentences correctly, both in written and spoken forms of language with accuracy and fluency					2	2	2	3	3	3	3	3	2	**2**
		CO2	Introduce themselves deliver speeches and make technical presentation					2	2	2	3	3	3	3	3	2	**2**

		CO3	Speak effectively in real time and business situations					2	2	2	3	3	3	3	3	2	**2**
		CO4	Draft emails, formal letters and Resume					2	2	2	3	3	3	3	3	2	**2**
		CO5	Write reports and proposals, memos and checklists					2	2	2	3	3	3	3	3	2	**2**
U14MAT202	Vector Calculus, Differential Equations and Complex Analysis	CO1	Work out on different types of ordinary differential equations and use various methods to solve differential equations	3	3	3	3	1	1					1	2	2	**2**
		CO2	Compute vector functions, operators and use different methods of solving line, surface and volume integrals.	3	3	3	3	1	1					1	2	2	**2**
		CO3	Describe special features of function of a complex variable, Properties and solve the problems involving conformal mapping.	3	3	3	3	1	1					1	2	2	**2**

		CO4	Work out the power series expansion of a complex function and the procedures of evaluating the complex integral.	3	3	3	3	1	1					1	2	2	**2**
		CO5	Work out problems on Laplace transform its inverse, properties and solve an ordinary Differential equation using Laplace transforms.	3	3	3	3	1	1					1	2	2	**2**
U14PHY203	Material Science	CO1	Distinguish between electrical and thermal conductivity based on classical free electron theory of solids and apply Fermi distribution function to calculate carrier concentration in metals.	3	1	1									1	2	**2**
		CO2	Differentiate intrinsic and extrinsic semiconductors, analyze the variation of Fermi level with temperature and apply Hall effect to determine the nature of charge	3	1	1									1	2	**2**

			carriers.														
		CO3	Discuss the properties and applications of magnetic and super conducting materials.	3	1	1									1	2	**2**
		CO4	Explain the different types of polarization process in dielectric materials, their frequency and temperature dependence and discuss the causes of dielectric breakdown	3	1	1									1	2	**2**
		CO5	Describe metallic glasses and shape memory alloys and explain the synthesis, properties and applications of nano materials and carbon nano tubes	3	1	1									1	2	**2**

U14CHE205A	Chemistry for Electrical and Electronics Engineers	CO1	Analyze the types of polymers, polymerization reactions, polymerization techniques and fabrication methods of polymers for engineering applications.	3	1	1									1	1	**1**
		CO2	Describe the importance of various types of food products and their biological importance.	3	1	1									1	1	**1**
		CO3	Discuss the role of Chemistry in day to day life.	3	1	1									1	1	**1**
		CO4	Identify the various types of fuels, and explain their chemical compositions, properties and applications in engineering field.	3	1	1									1	1	**1**

		CO5	Outline the principle of organic electronic materials and its applications in the fabrication of electronic devices.	3	1	1									1	1	**1**
U14CPR206	Programming in C	CO1	Develop C Programs using basic programming concepts	2	2	2	2	2	1			2			2	2	**2**
		CO2	Develop C programs using arrays and strings	2	2	2	2	2	1			2			2	2	**2**
		CO3	Develop applications in C using functions , pointers and structures & input/output and file handling in C	2	2	2	2	2	1			2			2	2	**2**
		CO4	Write C program for simple applications of real life using structures and files	2	2	2	2	2	1			2			2	2	**2**

		CO5	Explain role of Operating system in computer system and applications of computer networks	2	2	2	2	2	1			2			2	2	**2**
U14EGR207	Engineering Graphics	CO1	Develop in student's graphic skill for communication of concepts, ideas and design of engineering products	2		2		1	1					1	1	1	**1**
		CO2	Develop special curves such as polygons helices and screw threads	2		2		1	1					1	1	1	**1**
		CO3	Develop the different shapes of machine components	2		2		1	1					1	1	1	**1**
		CO4	Create drawings for fabricating boilers, chimneys, ducts and machine structures	2		2		1	1					1	1	1	**1**
		CO5	Develop the solids and surfaces	2		2		1	1					1	1	1	**1**

U14PCL208	Physics & Chemistry Laboratory – II	CO1	Demonstrate the application of a diode laser to determine the characteristics of a given optical fibre	3	1	1									1	1	**1**
		CO2	Demonstrate the estimation of hydrochloric acid present in the given solution using pH meter	3	1	1									1	1	**1**
		CO3	Estimate the mixture of acids by conductometry	3	1	1									1	1	**1**
U14CPL209	C Programming Laboratory	CO1	Develop C Programs using basic programming concepts	2	2	2	2	2	1			2			2	2	**2**
		CO2	Develop C programs using arrays and strings	2	2	2	2	2	1			2			2	2	**2**
		CO3	Develop applications in C using functions , pointers and structures & input/output and file handling in C	2	2	2	2	2	1			2			2	2	**2**

U14BEEL210	Basic electrical and electronics Engineering Laboratory	CO1	Design and analyze the RLC series and parallel resonance circuits	3	3	3	3					2		2	2	3	**3**
		CO2	Analyze the circuits using Kirchoff's law.	3	3	3	3					2		2	2	3	**3**
		CO3	Implement the logic function using logic gates and study the various functions of three phase AC circuits.	3	3	3	3					2		2	2	3	**3**
		CO1	Construct the Fourier series to solve the initial and boundary value problems	3	3	1	2								3	3	**3**
		CO2	Form partial differential equations and solve standard types of first order PDE and linear PDE of second order with constant coefficients	3	3	3	2								3	3	**3**

U14GE301A	Transforms and Partial Differential Equations	CO3	Prove the properties of the Z- transform, apply convolution theorem to various functions and solve the difference equations.	3	3	1	2								3	3	**3**
		CO4	Apply and solve vector spaces for different applications, explain linear independence and dependence of vectors and dimension of vector spaces	3	3	3	2								3	3	**3**
		CO5	Classify the quasi linear PDE and solve one dimensional wave equations and two dimensional heat equation	3	3	1	2								3	3	**3**
U14EC302	Electron Devices and Circuits	CO1	Understand the construction and modeling of semiconductor diodes and field-effect transistors	3	3	3	3	3	1			1	1	2	2	3	**3**
		CO2	Select the biasing circuits based on load line analysis.	3	3	3	3	3	1			1	1	2	2	3	**3**

		CO3	Perform mid band analysis of BJT and FET amplifiers.	3	3	3	3	3	1			1	1	2	2	3	**3**
		CO4	Analyze the frequency response of BJT and FET amplifiers and compute gain bandwidth product.	3	3	3	3	3	1			1	1	2	2	3	**3**
		CO5	Compare the large signal amplifiers with respect to distortions and thermal stability.	3	3	3	3	3	1			1	1	2	2	3	**3**
U14EE310	Electrical Engineering	CO1	Analyse D.C. Machines, starters and Speed control of D.C. shunt motors.	3	3	2	2	2	2	2	2		2	2	2	1	**1**
		CO2	Analyse the operation and construction of Transformers.	3	2	2	2	2	2	2	2		2	2	2	1	**1**
		CO3	Design three phase induction motors.	3	2	2	2	2	2	2	2		2	2	2	1	**1**
		CO4	Describe stepper motor, synchronous and special machines.	3	2	2	2	2	2	2	2		2	2	2	1	**1**

		CO5	Develop EHVAC and EHVDC transmission systems.	3	2	2	2	2	2	2	2		2	2	2	1	**1**
U14EC303	Digital Electronics	CO1	Identify different number system and its conversion; simplify Boolean expressions by different methods and implementation using logic gates.	3	3	3	3	1	1				1	2	2	3	**3**
		CO2	Design and implement combinational circuits using basic logic gates	3	3	3	3	3	1				1	2	2	3	**3**
		CO3	Design synchronous sequential circuits using flip flops.	3	3	3	3	2	1					2	2	3	**3**
		CO4	Design counters, registers and asynchronous sequential logic	3	3	3	3	2	1					2	2	3	**3**
		CO5	Design and implement asynchronous sequential circuits and explain the need for hazards.	3	3	3	3	3	1					2	2	3	**3**

U14EC304	Signals and Systems	CO1	Perform multiple operations on CT and DT signals and analyse the characteristics of continuous and discrete time systems.	3	3	3	3	1						2	2	3	**3**
		CO2	Apply Fourier series and Fourier Transform on CT signals and systems	3	3	3	3	1						2	2	3	**3**
		CO3	Analyse linear time invariant CT system.	3	3	3	3	1						2	2	3	**3**
		CO4	Apply DTFT and Z transform on DT signals and systems	3	3	3	3	1						2	2	3	**3**
		CO5	Analyze linear time invariant DT system.	3	3	3	3	1						2	2	3	**3**
		CO1	Describe natural resources and energy resources.			1	1		3	3	3	3		1	2	1	**1**

U14CHE304	Environmental Science and Engineering	CO2	Analyze ecosystems and biodiversity.			1	1		3	3	3	3		1	2	1	**1**
		CO3	Identify control measures to avoid environmental pollution			1	1		3	3	3	3		1	2	1	**1**
		CO4	Analyze social issues related to environmental ethics.			1	1		3	3	3	3		1	2	1	**1**
		CO5	Analyze the role of Information technology in environment and human health.			1	1	3	3	3	3	3		1	2	1	**1**
		CO1	Analyze diagnostic tests for communication, aptitude, verbal & employability and assess SWOT Analysis				1		2			3	3	3	3	2	**2**

U14GE302	Personality and Career Enhancement - I	CO2	Develop soft skills, Career guidance transactional analysis and resume writing.				1		1			2	3	3	3	2	**2**
		CO3	Develop time management and stress management				1		2			3	3	3	3	2	**2**
		CO4	Develop interpersonal skills and team work				1		2			3	3	3	3	2	**2**
		CO5	Develop meditation technique, communication castle and unscramble role play.				1		2			3	3	3	3	2	**2**
U14EC305	Electronic Circuits Laboratory	CO1	Operate electronic test equipment and hardware tools and to use the same for conducting experiments.	2	2	2	2	1				2		3	1	3	**3**
		CO2	Draw and analyze VI characteristics of various diodes.	2	2	2	2	1				2		3	1	3	**3**
		CO3	Analyze the input and output characteristics of various transistors and plot the frequency response of amplifier circuits.	2	2	2	2	1				2		3	1	3	**3**

U14EC306	Digital Electronics Laboratory	CO1	Design and implement combinational circuit using logic gates	2	2	2	2	1				2		3	1	3	**3**
		CO2	Design and develop various functional for sequential and combinational circuits.	2	2	2	2	1				2		3	1	3	**3**
		CO3	Develop Verilog HDL code for combinational and sequential circuits.	2	2	2	2	1				2		3	1	3	**3**
U14GE303	Communication Skills Laboratory	CO1	Demonstrate active listening skills	1					1	2	2	3	3	2	2		
		CO2	Read fluently and comprehend the given texts.		2	1				2		3			2		
		CO3	Make power point presentations and perform effectively in interviews and group discussions.	1	1			1		2		2			2	2	
		CO1	Explain the concepts of moments and its properties	3	2		1		1					2	1	2	**2**
		CO2	Estimate the covariance correlation and regression of random variables	3	2		1		1					2	1	2	**2**

U14MAT401C	Probability and Random Process	CO3	Classify the random process with examples	3	2		1		1					2	1	2	**2**
		CO4	Analyze the concept of power spectral density and cross spectral density	3	2		1		1					2	1	2	**2**
		CO5	Analyze the response of random variables to LTI system.	3	2		1		1					2	1	2	**2**
U14EC401	Electromagnetic Fields	CO1	Solve the Maxwell's equation using vector calculus using 3 standard coordinate system.	3	2	2	3	1	1					2	1	3	**3**
		CO2	Apply vector calculus to solve static electric field problems for different engineering applications.	3	2	2	3	1	1					2	1	3	**3**
		CO3	Apply vector calculus to solve static magnetic field problems for different engineering applications.	3	2	2	3	1	1					2	1	3	**3**
		CO4	Analyze and compute the power flow mechanism in bounded and unbounded medium.	3	2	2	3	1	1					2	1	3	**3**

		CO5	Deduce EM wave propagation in free space and dielectric medium.	3	2	2	3	1	1					2	1	3	**3**
U14EC402	Electronic Circuits	CO1	Identify the feedback topology for the given circuit.	3	2	2	3	1	1					2	1	3	**3**
		CO2	Design a sine wave generator using LC and RC network.	3	2	3	3	1	1					2	1	3	**3**
		CO3	Analyse the performance of different types of tuned amplifiers.	3	2	2	3	1	1					2	1	3	**3**
		CO4	Design Wave shaping circuits for specific application.	3	2	3	3	1	1					2	1	3	**3**
		CO5	Describe the different types of blocking oscillators.	3	2	2	3	1	1					2	1	3	**3**
		CO1	Analyze the AC and DC characteristics of Op-Amp.	3	2	2	3	1	1					2	1	3	**3**

U14EC403	Linear Integrated Circuits	CO2	Design Op-Amp circuit for linear applications	3	2	3	3	1	1					2	1	3	**3**
		CO3	Design Op-Amp circuit for non-linear applications and signal generation.	3	2	3	3	1	1					2	1	3	**3**
		CO4	Analyze voltage reference circuits, regulators and design circuits using analog multipliers.	3	2	3	3	1	1					2	1	3	**3**
		CO5	Analyze the working of different types of ADC, DAC and PLL.	3	2	2	3	1	1					2	1	3	**3**
U14EE407	Control Systems	CO1	Find the transfer functions using block diagram reduction techniques and signal flow graph.	3	2	2	3	1	1					2	1	2	**1**
			Analyze the time														
		CO2	domain specifications of first order System and	3	2	2	3	1	1					2	1	2	**1**

			second order System.														
		CO3	Design a system using Polar plot, Bode plot, M and N Circles and Nichol's Chart.	3	2	3	3	1	1					2	1	2	**1**
		CO4	Analyze the stability of the system using Routh Stability Criterion, Root Locus Construction and Nyquist Stability Criterion.	3	2	2	3	1	1					2	1	2	**1**
		CO5	Design of lead, lag and lead lag compensators.	3	2	3	3	1	1					2	1	2	**1**
U14EC404	Measurements and Instrumentations	CO1	Discuss the measurement errors units, and standards.	3	3	3	2	1	1	2				2	2	3	**3**
		CO2	Design electromechanical instruments and bridges	3	3	3	2	1	1	2				2	2	3	**3**
		CO3	Construct electronic instruments and oscilloscopes.	3	3	3	2	1	1	2				2	2	3	**3**
		CO4	Develop circuit for signal generators and frequency counters.	3	3	3	2	1	1	2				2	2	3	**3**

		CO5	Analyze different transducers, data acquisition system and fiber optic measurements.	3	3	2	2	1	1	2				2	2	3	**3**
U14GE301A	Personality and Career Enhancement - II	CO1	Build resume impressively.			1					3	3	3	1		1	**1**
		CO2	Communicate effectively.			1					3	3	3	1		1	**1**
		CO3	Involve actively in group discussion, interviews and presentation.			1					3	3	3	1		1	**1**
		CO4	Develop public speaking skills.			1					3	3	3	1		1	**1**
		CO5	Participate actively in role play, and debate.			1					3	3	3	1		1	**1**
U14EC405	Linear Integrated & Circuits Laboratory	CO1	Perform algebraic operations and generate waveforms using Op-amp IC741.	3	3	3	3					3	1	3	1	3	**3**
		CO2	Design analog filters using Op-amp IC741, monostable and astable multivibrator using IC555.	3	3	3	3					3	1	3	1	3	**3**

		CO3	Analyze voltage regulator using IC723 and design PLL using LM565.	3	3	3	3					3	1	3	1	3	**3**
U14EC406	Electronic Circuits and Simulation Laboratory	CO1	Design negative feedback amplifiers and plot its frequency response.	3	3	3	3					3	1	3	1	3	**3**
		CO2	Design different types of oscillators for the given specifications.	3	3	3	3					3	1	3	1	3	**3**
		CO3	Simulate oscillators and amplifier using PSPICE.	3	3	3	3	3				3	1	3	1	3	**3**
		CO1	Explain the fundamental concepts of fixed point iteration, methods to solve a linear system of equations by direct and iterative methods and method for finding eigen value of a matrix	3	3	2	2	1	1					1	2	2	**2**

U14MAT501B	Numerical Methods for Engineering Computation	CO2	Describe the Lagrangian polynomials, interpolation using cubic spline and state Newton's forward and backward difference formulas.	3	3	2	2	1	1					1	2	2	**2**
		CO3	Discuss to evaluate the derivatives from finite and divided differences and state the rules for numerical integration.	3	3	2	2	1	1					1	2	2	**2**
		CO4	Outline the working principles of single step methods & multi step methods for solution of ordinary differential equations	3	3	2	2	1	1					1	2	2	**2**
		CO5	Solve boundary value problems in ordinary and partial differential equations	3	3	2	2	1	1					1	2	2	**2**

U14EC501	Analog Communication System	CO1	Describe the generation and detection methods of various AM systems	3	3	2	2	1	1					2	2	3	**3**
		CO2	Explain the various types of generation and demodulation methods of FM systems.	3	3	2	3	1	1					2	2	3	**3**
		CO3	Describe the effect of noise in modulation systems and calculate the noise figure of cascaded amplifiers.	3	3	2	3	1	1					2	2	3	**3**
		CO4	Analyze and compare the noise performance of various analog modulation systems.	3	3	2	3	1	1					2	2	3	**3**
		CO5	Evaluate the coding efficiency of different source coding Techniques and discuss the concept of channel capacity and average information.	3	3	2	3	1	1					2	2	3	**3**

U14EC502	Digital Signal Processing	CO1	Exploit the properties of discrete Fourier transforms and implement DFT using fast Fourier transform.	3	3	2	3	2	1					2	2	3	**3**
		CO2	Design and realize finite impulse response filters.	3	3	3	3	3	1					2	2	3	**3**
		CO3	Design and realize IIR filters.	3	3	3	3	3	1					2	2	3	**3**
		CO4	Analyze quantization effects and multirate signal processing.	3	3	2	3	3	1					2	2	3	**3**
		CO5	Discuss the architecture and addressing modes of digital signal processor TMS320C54.	3	1	2	1	3	1					2	2	3	**3**
U14EC503	Transmission Lines and Waveguides	CO1	Analyze electromagnetic wave propagation in generic transmission line geometries.	3	3	1	3	1	1						2	3	**3**

		CO2	Design impedance matching transmission line and calculate the reflection coefficient, SWR, using smith chart.	3	3	3	3	3	1					2	2	3	**3**
		CO3	Analyze guided waves and their field pattern between parallel planes of perfect conductors.	3	3	3	3	3	1					2	2	3	**3**
		CO4	Design and measure the various propagating modes of rectangular wave guides.	3	3	3	3	3	1					2	2	3	**3**
		CO5	Derive the field equation of circular waveguides and resonators.	3	3	2	3	3	1					2	2	3	**3**
		CO1	Analyze the internal architecture of 8085 and write assembly language program in 8085μp.	3	1	3	2	2	1	2				2	2	3	**3**

U14EC504	Microprocessor and its applications	CO2	Interface various peripherals with 8085 microprocessor.	3	1	3	2	2	1	2				2	2	3	**3**
		CO3	Analyze internal architecture of 8086µp, addressing modes, instruction sets and write assembly language program using 8086µp.	3	1	3	2	2	1	2				2	2	3	**3**
		CO4	Apply the concepts of different coprocessors – numeric and I/O processor.	3	1	3	2	2	1	2				2	2	3	**3**
		CO5	Interface ROM, RAM, temperature controller and stepper motor.	3	1	3	2	2	1	2				2	2	3	**3**
U14EC505	Computer Networks	CO1	Discuss the functions of ISO/OSI model and its standards.	1	3	3	3	1	2					2	2	3	**3**
		CO2	Analyze the error detection and control mechanisms involved in the data link layer of different IEEE standards.	1	3	3	3	1	2					2	2	3	**3**

		CO3	Choose packet switching, sub netting and routing according to the functions of network layer	1	3	3	3	1	2					2	2	3	**3**
		CO4	Manage and control congestion in the network.	1	3	3	3	1	2					2	2	3	**3**
		CO5	Develop various network applications like FTP, Email, HTTP with network security	1	3	3	3	1	2					2	2	3	**3**
U14GE501	Personality and Career Enhancement - III	CO1	Apply logic and calculations while tackling day-to-day arithmetic, involving simple-to-complicated problems			1					3	3	3	1		1	**1**
		CO2	Discuss the concepts of time, distance and modern mathematics.			1					3	3	3	1		1	**1**
		CO3	Explain the basic concepts of logical reasoning and data interpretation.			1					3	3	3	1		1	**1**

		CO4	Discuss Sentence correction and Etymology.			1					3	3	3	1		1	**1**
		CO5	Illustrate communication techniques such as GD, debate, extempore and crossword puzzles			1					3	3	3	1		1	**1**
U14EC506	Microprocessor Laboratory	CO1	Develop programs for arithmetic operations, code conversion using 8085 Microprocessor.	3	2	3	2	1	3				2	2	2	3	3
		CO2	Write programs for arithmetic operations, code conversion using 8086 Microprocessor.	3	2	3	2	1	3				2	2	2	3	3
		CO3	Interface 8085 microprocessor with Stepper motor interface, calculate Length of a String and Block transfer using 8086	3	2	3	2	1	3				2	2	2	3	3

U14EC507	Digital Signal Processing Laboratory	CO1	Perform Convolution and generation of signals using MATLAB and TMS320C54 Processor.	3	2	3	2	3	2				2	2	2	3	3
		CO2	Analyze sampling theorem and calculation of DFT using MATLAB and TMS320C54 Processor.	3	2	3	2	3	2				2	2	2	3	3
		CO3	Design of FIR and IIR filters using MATLAB and TMS320C54 processor.	3	2	3	2	3	2				2	2	2	3	3
U14EC508	Computer Networks Laboratory	CO1	Simulate CSMA/CD protocol in Token bus and Token ring	1	1	3	3	1		1		2			2	3	3
		CO2	Transfer data using Wireless LAN protocols stop and wait protocol, Go back N and selective reject protocols.	1	1	3	3	1		1		2			2	3	3
		CO3	Find shortest path using Distance Vector Routing algorithm and Link State Routing algorithm.	1	1	3	3	1		1		2			2	3	3

U14EC601	Digital Image processing	CO1	Describe the fundamentals of monochrome and color image processing and analyze the basic relations between pixels, connectivity and distance measures.	3	3	3	3	3					2	2	2	3	3
		CO2	Apply DFT DCT, DST, Walsh, Hadamard, Haar, wavelet and SVD transform for images.	3	3	3	3	3						2	2	3	3
		CO3	Apply image enhancement techniques in spatial and frequency domain.	3	3	3	3	3					2	2	2	3	3
		CO4	Analyze image restoration using constrained and unconstrained filters and image segmentation approaches.	3	3	3	3	3					2	2	2	3	3
		CO5	Appraise the need for image compression using lossy and lossless techniques.	3	3	3	3	3					2	2	2	3	3

U14EC602	Digital Communication	CO1	Analyze the sampling process and different types of digital pulse modulation techniques.	3	2	2	1	3					2	2	2	3	3
		CO2	Describe the baseband pulse transmission and the features of duo-binary coding.	3	2	2	1	3					2	2	2	3	3
		CO3	Derive the bit error probability of digital modulation techniques and compare the various digital modulation methods.	3	2	3	2	3					2	2	2	3	3
		CO4	Compute the code vectors for different error control coding techniques.	3	2	3	2	3					2	2	2	3	3
		CO5	Calculate the performance parameters of spread spectrum modulation methods.	3	2	3	2	3					2	2	2	3	3

U14EC603	Antenna and Wave Propagation	CO1	Discuss the fundamentals and radiation pattern of antenna.	3	3	3	3	3	1				2	2	2	3	3
		CO2	Evaluate the parameters of antenna arrays.	3	3	3	3	3	1				2	2	2	3	3
		CO3	Design wide band antennas for various specifications.	3	2	3	3	3	1				2	2	2	3	3
		CO4	Identify the types of antennas for special applications.	3	2	3	3	3	1				2	2	2	3	3
		CO5	Analyze the atmospheric and terrestrial effects on Radio wave propagation.	3	1			3	1				2	2	2	3	3
U14EC604	VLSI Design	CO1	Analyze the characteristics of MOS Transistor.	3	2	2	2	3	1				2	2	2	3	3

		CO2	Design and fabricate the CMOS circuits.	3	2	2	2	3	1				2	2	2	3	3
		CO3	Estimate and analyze the resistance, capacitance and power dissipation in CMOS.	3	2	2	2	3	1				2	2	2	3	3
		CO4	Perform design verification and testing of MOS circuits.	3	2	2	2	3	1				2	2	2	3	3
		CO5	Write the VHDL code for combinational and sequential circuits.	3	2	2	2	3	1				2	2	2	3	3
U14EC605	Micro controller and RISC Architecture	CO1	Explain the architecture of 8051 microcontroller.	3		3		3	2				2	2	2	3	3
		CO2	Write an assembly language program to access hardware peripherals of 8051.	3	2	3	2	3	2				2	2	2	3	3
		CO3	Analyze the architecture and programming of PIC microcontroller	3	2	3	2	3	2				2	2	2	3	3

		CO4	Analyze the architecture, programming and interfacing of ARM	3	2	3	2	3	2				2	2	2	3	3
		CO5	Evaluate ARM The ARM programmer's model-3 stage and 5 stage pipeline ARM organization, ARM instruction set and TDMI architecture	3	2	3	2	3	2				2	2	2	3	3
U14EC606	Medical Instrumentation	CO1	Recognize the anatomy and physiology of human body and understand the basics of biomedical instrumentation systems like ECG, EMG, EOG, and EMG & EEG.	3				3	2				2	2	2	3	3
		CO2	Analyze and explain various methods for blood flow measurement and biochemical measurement techniques.	3				3	2				2	2	2	3	3
		CO3	Discriminate various therapeutic equipment and	3				3	2				2	2	2	3	3

			patient safety.														
		CO4	Outline the objectives and working principles of the various medical imaging systems	3				3	2				2	2	2	3	3
		CO5	Elaborate the role of computers in medicine	3				3	2				2	2	2	3	3
U14GE601	Personality and Career Enhancement - IV	CO1	Explain about prioritizing, planning and organizing of an event and importance of delegating skills.			1					3	3	3	1		1	1
		CO2 CO3	Develop Entrepreneurial Skills and understanding of Entrepreneurship and entrepreneurial Competencies and identifying the advantages of Entrepreneur			1					3	3	3	1		1	1
			Prepare one- self to deal with criticism, demonstrate interview techniques, and manage the frequently asked questions in the interview and explain about the presentation skills			1					3	3	3	1		1	1

		CO4	State the development of Personal Effectiveness by positive intention, creative problem solving and effective decision making.			1					3	3	3	1		1	1
		CO5	State the importance of Business and Cross cultural Etiquette and Personal Grooming, Ethics and Human Values			1					3	3	3	1		1	1
U14EC607	Communication Laboratory (Analog, Digital and RF)	CO1	Construct the circuit for generation and demodulation of analog and digital modulation Techniques.	3	3	3	3	2				3		2	2	3	3
		CO2	Analyze the types of filters using network Analyzer.	3	3	3	3	2				3		2	2	3	3
		CO3	Plot the radiation pattern of Half wave dipole, Yagi and loop antennas.	3	3	3	3	2				3		2	2	3	3

U14EC608	VLSI Laboratory	CO1	Design and simulate combinational and sequential logic circuits using VHDL.	3	3	3	3	3				3		2	2	3	3
		CO2	Design CMOS circuit using SPICE	3	3	3	3	3				3		2	2	3	3
		CO3	Implement combinational and sequential logic circuits in FPGA.	3	3	3	3	3				3		2	2	3	3
U14EC609	Digital Image Processing Laboratory	CO1	Write a MATLAB code to demonstrate and perform various operations related to image processing.	3	3	3	3	3				3		3	2	3	3
		CO2	Generate a LABVIEW code to demonstrate and perform various operations related to image processing.	3	3	3	3	3				3		3	2	3	3
		CO3	Write a MATLAB code or generate a LABVIEW code to demonstrate and perform various operations related to image processing	3	3	3	3	3				3		3	2	3	3

U14EC610	Mini Project	CO1	Analyze and identify the engineering problems to formulate the literature survey.	3	3	3	3	3	3	3	2	3	3	3	3	3	3
		CO2	Design system components that acquire the needs of public health and environmental considerations	3	3	3	3	3	3	3	2	3	3	3	3	3	3
		CO3	Apply knowledge for carrying out the project in team and perform documentation effectively	3	3	3	3	3	3	3	3	3	3	3	3	3	3
U14GE701A	Professional Ethics and Human Values	CO1	Identify the core values that shape the ethical behavior of an engineer.	1					3	3	3	3	3	2	2	1	1
		CO2	Utilize opportunities to explore one's own values in ethical issues.	3					3	3	3	3	3	2	2	1	1
		CO3	Apply and enhance familiarity with codes of conduct	3					3	3	3	3	3	2	2	1	1
		CO4	Know the values of Engineering as social experimentation	3					3	3	3	3	3	2	2	1	1

		CO5	Increase the ability to recognize and resolve ethical dilemmas.	3					3	3	3	3	3	2	2	1	1
U14EC701	Wireless Networks	CO1	Describe the different layers of WLAN.	3		1		2	2					2	2	3	3
		CO2	Compare the different generation of WMAN.	3		1		2	2					2	2	3	3
		CO3	Analyze the architecture of Wireless MANs and PANs.	3		1		2	2					2	2	3	3
		CO4	Analyze the multiple radio access techniques.	3		1		2	2					2	2	3	3
		CO5	Analyze the routing protocols for Ad hoc and sensor networks.	3		1		2	2					2	2	3	3
U14EC702	Optical Fiber Communication	CO1	Describe the basic elements of optical fiber link, fiber modes configurations and structures.	3		1	2							2	2	3	3
		CO2	Analyze the different kind of losses, distortion in optical waveguides.	3	2	2	2	2	2	1				2	2	3	3

		CO3	Analyze the optical source materials.	3	2	3	2	2	2	1				2	2	3	3
		CO4	Estimate the noise performance in optical receivers.	3	2	2	2	2	2	1				2	2	3	3
		CO5	Explain fiber splicing techniques, operational WDM and solitons.	3	2	2	2	3	2		1			2	2	3	3
U14EC703	Microwave Engineering	CO1	Estimate the S parameters for different microwave components.	3	3	3	2	2		1				2	2	3	3
		CO2	Analyze the power and efficiency of microwave linear tubes and magnetron.	3	3	3	2	2		1				2	2	3	3
		CO3	Analyze the characteristics of different microwave Semiconductor diodes.	3	3	3	2	2		1				2	2	3	3
		CO4	Design strip lines and coplanar waveguides.	3	3	3	2	2		1				2	2	3	3
		CO5	Evaluate the microwave parameters using different measurement techniques.	3	3	3	2	2		1				2	2	3	3

U14EC921	Elective – I Embedded and Real-time systems	CO1	Summarize the hardware and software architecture for an embedded system.	3	1	3	1	3	3					3	3	3	3
		CO2	Develop algorithm to optimize program size, execution time, power, and energy.	3	1	3	1	3	3					3	3	3	3
		CO3	Describe the Multiprocessor and Inter Process communication mechanism	3	1	3	1	3	3					3	3	3	3
		CO4	Design an application using RTOS kernel objects.	3	1	3	1	3	3					3	3	3	3
		CO5	Design hardware and software architecture for hand held devices.	3	1	3	1	3	3					3	3	3	3
U14EC912	Elective – II Computer Hardware interfacing	CO1	Identify different components like CPU and explain memory organization and over clocking.	3	1	3	1	3	3					3	3	3	3

		CO2	Differentiate various input and output system of PC	3	1	3	1	3	3					3	3	3	3
		CO3	Describe different types of I/O peripherals	3	1	3	1	3	3					3	3	3	3
		CO4	Differentiate storage devices, controllers and standard interfaces	3	1	3	1	3	3					3	3	3	3
		CO5	Provide the details of bus interface systems and recent trends in the PC	3	1	3	1	3	3					3	3	3	3
U14EC920	Nano Electronics.	CO1	Describe the basis of Nano, different microscopes, X ray diffraction and associated techniques.	3	1	3	1	3	3					3	3	3	3
		CO2	Provide the overview of the Diversity in nano systems like conductivity and super conductivity etc.	3	1	3	1	3	3					3	3	3	3

		CO3	Provide the overview of method of preparation of Nano particles and the nano shells.	3	1	3	1	3	3					3	3	3	3
		CO4	Describe the interaction between bio And nano particle applications, State about nano sensors and its types.	3	1	3	1	3	3					3	3	3	3
		CO5	Provide the overview of nano technology in connection with the society like Issues, Nano policies and institutions	3	1	3	1	3	3					3	3	3	3
U14EC704	Optical and Microwave Laboratory	CO1	Plot the characteristics of reflex klystron mode and Gunn diode.	3	3	2	1						2	3	3	3	3
		CO2	Measure the frequency, Impedance, wavelength &VSWR of microwave components.	3	3	2	1						2	3	3	3	3

		CO3	Analyze the working of Horn Antenna, Magic tee, directional couplers, circulator, isolator and optical devices	3	3	2	1	2					2	3	3	3	3
U14EC705	Electronic System Design Laboratory	CO1	Design AC and DC voltage regulator.	3	3	3	3	3	1					3	3	3	3
		CO2	Design a data acquisition and storage signals using PC	3	3	3	3	3	1					3	3	3	3
		CO3	Design the multi rate processing, modulation and demodulation circuits	3	3	3	3	3	1					3	3	3	3
		CO1	Identify problems, formulate literature survey and analyze engineering problems.	3	3	3	3	3	3	2	3	3	3	3	3	3	3

U14EC706	Project Work Phase - I	CO2	Design system component that acquire the needs for public health and environment consideration.	3	3	3	3	3	3	2	3	3	3	3	3	3	3
		CO3	Form a team for carrying the project and perform documentation effectively.	3	3	3	3	3	3	2	3	3	3	3	3	3	3
U14EC801	Cellular and Mobile Communication	CO1	Learn the basic cellular radio concepts and capacity expansion techniques in a cellular system.	3		1		3	2				1	2	2	3	3
		CO2	Predict the large scale and small effects of radio propagation in many operating environments.	3	2	2	2	3	2				1	2	2	3	3

		CO3	Classify the modulation techniques used in wireless communication and provide an overview of equalization and diversity concepts.	3	2	2	2	3	2				1	2	2	3	3
		CO4	Identify several types of speech coders.	3		3	2	3	2				1	2	2	3	3
		CO5	Provide an overview of second generation and third generation wireless networks.	3		2	2	3	2				2	2	2	3	3
U14EC802	Disaster Management	CO1	Describe ISDR and discuss the concept of disaster preparedness.	3	2			2	3	3	3	3	3	3	3	2	2
		CO2	Involve intranets and extranets and GIS in risk reduction.	3	2			2	3	3	3	3	3	3	3	2	2
		CO3	Create public awareness for risk reduction.	3	2			2	3	3	3	3	3	3	3	2	2
		CO4	Describe the features of community based disaster management and emergency Response.	3	2			2	3	3	3	3	3	3	3	2	2
			Discuss seismic waves,														

		CO5	earth quakes and types of faults, explain measures of Earthquake, describe ground damage and provide an overview of tsunamis and earthquakes.	3	2			2	3	3	3	3	3	3	3	2	2
U14EC926	Elective Television and Video Engineering	CO1	Learn the basic concept of TV Picture and Sound principles, transmission and defining the basic concepts of scanning process, aspect ratio, camera tubes.	1		2	3	3								3	3
		CO2	Provide an overview of composite video signal, outline of blanking standards and working principles of colour TV systems	1		2	3	3				2				3	3
		CO3	Describe the TV modulation techniques and working principles of TV transmitters and outline of propagation phenomena	1	1	2	3	3		2			3			3	3

		CO4	Classify the monochrome and colour receivers and tuners and working principles of picture tubes and deflection systems	1	1	2	3	3		2			3			3	3
		CO5	Provide an over view of advanced display systems like LCD, LED and 3D TV and outline of video disc systems like CD and DVD, outline of DTH and digital TV			2	3	3		2			3		3	3	3
U14EC922	Elective Satellite Communication	CO1	Analyze the orbital parameters using Kepler's law.	3	2		2		1				2	2	2	3	3
		CO2	Estimate the link power budget.	3	2	3	3	2	1				2	2	2	3	3
		CO3	Analyze the different types of multiple access techniques.	3	2	3	3	2	1				2	2	2	3	3
		CO4	Explain transmitters, receivers and antennas for earth segment.	3	2			1	1				2	2	2	3	3
		CO5	Discuss the applications of satellite communication.	3	2			3	1				2	2	2	3	3

U14EC925	Elective Telecommunication and Switching Networks	CO1	Explain the architecture SONET/SDH.	3		3		3	2				2	2	2	3	3
		CO2	Describe digital switching techniques	3		3		3	2				2	2	2	3	3
		CO3	Analyze the network synchronization and management techniques.	3	2	3	2	3	2				2	2	2	3	3
		CO4	Analyze digital subscriber access techniques.	3	2	3	2	3	2				2	2	2	3	3
		CO5	Analyze the traffic to avoid the blocking probabilities.	3	2	3	2	3	2				2	2	2	3	3
U14EC803	Project Work Phase - II	CO1	Apply knowledge and demonstrate to manage project in multi- disciplinary areas	3	3	3	3	3	3	2	3	3	3	3	3	3	3
		CO2	Design and conduct experiments to interpret data pertaining to engineering problems	3	3	3	3	3	3	2	3	3	3	3	3	3	3
		CO3	To prepare documentation and presentation	3	3	3	3	3	3	2	3	3	3	3	3	3	3

3.2 Attainment of Course Outcomes (75)

3.2.1 Describe the assessment tools and processes used to gather the data upon which the evaluation of Course Outcome is based (10)

1. Direct Assessment Tools

Assignment

The assignment is a qualitative performance assessment tool designed to assess students' knowledge of engineering practices, framework, and problem solving. An analytic rubric was developed to assess students' knowledge with respect to the learning outcomes associated with the scenario tool.

CIE tests for theory courses

This type of performance assessment is carried out during the examination sessions which are held thrice for a course in every semester. Each and every CIE test is focused in attaining the course outcomes.

CIE tests for lab courses

This type of performance assessment is carried out during the internal practical examination sessions which are held twice in every semester for each lab course. Each and every CIE test is focused in attaining the course outcomes of lab courses.

Real time problem solving

This type of performance assessment is carried out during the practical sessions which are held once in a semester. Each and every session is focused in attaining the course outcomes.

Semester End Examination

Semester End examination is a metric for assessing whether the COs are attained or not. Examination is more focused on attainment of course outcomes using a descriptive exam.

Project review & presentation

This type of performance assessment is carried out in the final year in phase one and phase two. Each and every review is focused in attaining the program outcomes.

Group discussion & aptitude test

This type of performance assessment is carried out every semester for the second and third year students. The test is focused in attaining the program outcomes.

The approach in evaluating the attainment of CO is using existing data from students' marks. This method is chosen because of the information is readily available and it is common for most courses. In general, assessment methods used are grouped into 5 categories: (1) Continuous Internal Evaluation (CIE) Tests (2) Model exam (3) Assignments (4) Seminar (5) Semester End Examination (SEE). Each of these categories contributes a certain portion of the marks into some of the COs. This matrix shows the weightage distribution of the percentage of marks distribution for each specified CO.

The following table shows the sample CO calculation for the regulation 2010R, VI semester.

ASSESSMENT TYPE	COURSE OUTCOMES				
	CO1	CO2	CO3	CO4	CO5
SEE	20%	20%	20%	20%	20%
CIE1	67%	33%	-	-	-
CIE2	-	33%	67%	-	-
CIE3	-	-	-	50%	50%
MODEL	20%	20%	20%	20%	20%
ASSIGNMENT/ SEMINAR	20%	20%	20%	20%	20%
Total	127%	126%	127%	110%	110 %

Table3.2.1

Table 3.2.1 shows a general form of assessment-CO matrix. The number in the matrix shows the amount, in terms of percentage, contributes for each CO.

An example of Assessment-CO matrix Assessment Type Course Outcomes (CO) CO1, CO2, CO3, CO4 and CO5 .

In the example above, the Semester End Exam contributes to all outcomes (CO1,CO2, CO3, CO4 and CO5) with equal percentages. Other types of assessment contribute differently to the outcomes as the number or percentage shown in the matrix. Each CO will have its own 'mark' based on the percentage given. The 'CO-mark' is calculated based on the percentage of marks distribution for each assessments group.

The following weightage is allotted for the assignment mark based on the unit taken into consideration.

1. Assignment covering 5 units 20% each
2. Covering 4 units 25 % each
3. Covering 3 units 33% + 33% + 34%
4. Covering 2 units 50% each

The attainment calculation of individual COs for direct assessment is estimated as per the formulae mentioned below:

CO1 = 20 % SEE + 67 % CIE1 + 0% CIE 2 + 0 % CIE 3+ 20% Model + 20 % Assignment /Seminar

CO2 = 20 % SEE + 33 % CIE1 + 33% CIE 2 + 0 % CIE 3+ 20% Model+ 20 % Assignment /Seminar

CO3 = 20 % SEE + 0% CIE1 + 67% CIE 2 + 0 % CIE 3+ 20% Model + 20 % Assignment /Seminar

CO4 = 20 % SEE + 0 % CIE1 + 0% CIE 2 + 50 % CIE 3+ 20% Model + 20 % Assignment /Seminar

CO5 = 20 % SEE + 0 % CIE1 + 0% CIE 2 + 50 % CIE 3+ 20% Model + 20 % Assignment /Seminar

The following snapshot is an example for CO calculation for the course U10EC601R-Digital Image Processing for the batch 2012-16 under regulation 2010R.

1	Course	Branch	Student Name	CIE1	CIE2	CIE3	Model	Assign.	SEE	CO1	CO2	CO3	CO4	CO5
2	BE	ECE	AKSHAYA R	48	49	48	92	5	90	120.72	120.42	122.06	104.4	104.4
3	BE	ECE	ANANDHY M	47	49	50	90	5	90	118.98	119.36	121.66	106	106
4	BE	ECE	ANBARASAN M	32	37	42	76	5	80	94.08	96.74	100.78	93.2	93.2
5	BE	ECE	ARAVINDHAKUMAR A	28	28	25	62	5	56	81.12	80.56	81.12	68.6	68.6
6	BE	ECE	ARUN KUMAR R	33	28	35	65	5	70	91.22	87.26	84.52	82	82
7	BE	ECE	ARUN KUMAR S	37	32	37	77	5	70	98.98	94.94	92.28	86.4	86.4
8	BE	ECE	ASHA V K PRIYADHARSHINI	35	41	40	83	5	80	99.5	102.76	107.54	92.6	92.6
9	BE	ECE	ASHIKA ZULFIA M	35	43	38	80	5	70	96.9	101.48	107.62	88	88
10	BE	ECE	ASHWINI V	48	46	42	94	5	90	121.12	118.84	118.44	98.8	98.8
11	BE	ECE	BALA VIGNESH K G	37	32	42	71	5	80	99.78	95.74	93.08	92.2	92.2
12	BE	ECE	BRINDHASHINI VISVANATHAN	46	42	45	69	5	80	111.44	107.88	106.08	94.8	94.8
13	BE	ECE	DEEKSHA A	46	44	44	0	5	70	95.64	93.4	92.96	78	78
14	BE	ECE	DEVIPRIYA S	33	36	33	63	5	60	88.82	90.14	92.84	77.6	77.6
15	BE	ECE	DHAARANI R	32	29	37	74	5	70	91.68	89.06	87.66	85.8	85.8
16	BE	ECE	DINESH KUMAR T	37	32	32	73	5	80	100.18	96.14	93.48	82.6	82.6
17	BE	ECE	DINESHKUMAR N	44	39	43	95	5	80	113.96	109.78	107.26	98	98

After calculating each CO, the CO attainment from the direct assessment is calculated as the percentage of students scored more than the target value (65%) .

2. Indirect Assessment Tools

Indirect assessment strategies are calculated from course end survey reports collected at the end of every semester.

After collection of individual survey forms, the marks for COs are calculated based on the following formula:

$$CO\ attainment = \frac{[(\text{No. of students strongly agree} \times 3) + (\text{No. of students agree} \times 2) + (\text{No. of students disagree} \times 1)]}{(\text{Total no. of students} \times 3)} \times 100$$

The above formula is used to calculate the marks for indirect COs of all the courses in the curriculum in the respective regulation.

Final CO attainment for each course is calculated based on the contribution of direct and indirect assessments as per the weightage given below:

1. Direct Assessment (70%)
2. Indirect Assessment (30%)

Final CO attainment level = [(70% Direct assessment + 30 % Indirect assessment)/ 100]

Sl.No	Code	Courses	Assessed COs	Direct assessment A	Indirect assessment B	Total	Attainment level
1	U10EC601R	DIGITAL IMAGE PROCESSING	CO1	90.13	81.36	87.50	9
			CO2	86.18	78.73	83.95	9
			CO3	76.97	81.14	78.22	8
			CO4	86.18	80.04	84.34	9
			CO5	86.18	83.77	85.46	9
2	U10EC602R	DIGITAL COMMUNICATION	CO1	71.05	80.48	73.88	8
			CO2	73.03	82.24	75.79	8
			CO3	73.68	82.24	76.25	8
			CO4	59.87	83.33	66.91	7
			CO5	59.87	82.68	66.71	7
3	U10EC603R	ANTENNA AND WAVE PROPAGATION	CO1	63.82	83.33	69.67	7
			CO2	65.79	81.14	70.39	8
			CO3	71.71	83.33	75.20	8
			CO4	50.00	83.11	59.93	6
			CO5	50	83.99	60.20	7

3.2.2. Record the attainment of Course Outcomes of all courses with respect to set attainment levels (65)

CO ATTAINMENT FOR THE STUDENTS OF 2014-18 BATCH

Course Code	Name of the subject	COs	Direct Value	Indirect Value	Total
U14ENG101	Technical English – I	CO1	99.15	84.62	94.79
		CO2	99.15	83.76	94.53
		CO3	99.15	84.33	94.70
		CO4	100.00	84.90	95.47
		CO5	100.00	86.04	95.81
U14MAT102	Multivariable Calculus and Matrices *	CO1	88.03	78.92	85.30
		CO2	88.03	80.91	85.90
		CO3	88.89	83.48	87.26
		CO4	79.49	82.62	80.43
		CO5	79.49	81.48	80.09
U14PHY103	Engineering Physics *	CO1	85.47	85.75	85.56
		CO2	88.89	86.61	88.21
		CO3	94.87	85.47	92.05
		CO4	92.31	85.75	90.34
		CO5	92.31	85.47	90.26
U14CHE104	Engineering Chemistry *	CO1	82.91	85.19	83.59
		CO2	90.60	83.19	88.38
		CO3	94.02	84.62	91.20
		CO4	90.60	85.75	89.15
		CO5	90.60	84.90	88.89
U14FOC105	Fundamentals of Computing Systems *	CO1	74.36	78.92	75.73
		CO2	76.92	85.19	79.40
		CO3	76.92	81.48	78.29
		CO4	87.18	84.33	86.32
		CO5	87.18	85.47	86.67
U14BEE106	Basic Electrical & Electronics Engineering	CO1	85.47	88.89	86.50
		CO2	92.31	88.32	91.11
		CO3	93.16	87.75	91.54
		CO4	93.16	88.60	91.79
		CO5	93.16	88.32	91.71
U14PCL107	Physics & Chemistry Laboratory-1	CO1	85.47	94.59	88.21
		CO2	92.31	94.02	92.82
		CO3	95.73	96.58	95.98
U14CPL108	Computer Practices Laboratory *	CO1	79.49	95.44	84.27
		CO2	93.16	94.87	93.68

		CO3	93.16	95.16	93.76
U14EPL109	Engineering Practices Laboratory *	CO1	98.29	96.58	97.78
		CO2	99.15	95.73	98.12
		CO3	100.00	96.01	98.80
U14ENG201	Technical english – ii	CO1	92.31	77.78	87.95
		CO2	96.58	84.90	93.08
		CO3	100.00	79.49	93.85
		CO4	100.00	74.36	92.31
		CO5	100.00	79.49	93.85
U14MAT202	Vector calculus, differential equations and complex analysis	CO1	84.62	78.35	82.74
		CO2	84.62	88.32	85.73
		CO3	82.05	78.35	80.94
		CO4	86.32	76.92	83.50
		CO5	86.32	83.19	85.38
U14PHY203	Material science	CO1	98.29	88.60	95.38
		CO2	94.87	84.62	91.79
		CO3	88.89	79.77	86.15
		CO4	96.58	85.47	93.25
		CO5	96.58	78.63	91.20
U14CHE205A	Chemistry for electrical and electronics engineers	CO1	87.18	79.49	84.87
		CO2	79.49	83.19	80.60
		CO3	70.94	82.62	74.44
		CO4	69.23	81.48	72.91
		CO5	69.23	81.48	72.91
U14CPR206	Programming in c	CO1	75.21	94.02	80.85
		CO2	68.38	90.03	74.87
		CO3	59.83	87.46	68.12
		CO4	64.10	92.02	72.48
		CO5	64.10	89.74	71.79
U14EGR207	Engineering graphics	CO1	86.32	81.20	84.79
		CO2	87.18	84.05	86.24
		CO3	84.62	86.32	85.13
		CO4	90.60	87.18	89.57
		CO5	90.60	83.19	88.38
U14PCL208	Physics and chemistry laboratory - ii	CO1	100.00	86.61	95.98
		CO2	100.00	91.17	97.35
		CO3	88.89	87.75	88.55
U14CPL209	C programming laboratory	CO1	100.00	91.45	97.44
		CO2	98.29	90.03	95.81
		CO3	77.78	90.03	81.45
U14BEEL210	Basic Electrical And Electronics Engineering Laboratory	CO1	100.00	90.31	97.09
		CO2	100.00	91.17	97.35
		CO3	76.92	91.45	81.28

U14GE301A	Transforms and partial differential equations	CO1	76.60	80.75	77.84
		CO2	80.85	82.16	81.24
		CO3	82.98	82.16	82.73
		CO4	85.82	80.52	84.23
		CO5	85.82	80.52	84.23
U14EC302	Electronics Devices	CO1	90.07	82.63	87.84
		CO2	88.65	82.63	86.85
		CO3	91.49	79.81	87.99
		CO4	97.87	81.69	93.02
		CO5	97.87	80.28	92.60
U14EC303	Digital System Design	CO1	95.04	81.92	91.10
		CO2	92.20	83.10	89.47
		CO3	87.23	82.63	85.85
		CO4	93.62	84.98	91.02
		CO5	93.62	81.92	90.11
U14EC304	Signals And Systems	CO1	85.82	81.92	84.65
		CO2	85.11	77.23	82.74
		CO3	88.65	74.65	84.45
		CO4	95.04	75.35	89.13
		CO5	95.04	70.19	87.58
U14EE310	Electrical Engineering	CO1	93.62	79.81	89.48
		CO2	92.91	78.17	88.49
		CO3	90.78	81.69	88.05
		CO4	95.74	81.69	91.53
		CO5	95.74	71.83	88.57
U14CHE304	Environmental Science	CO1	98.58	79.58	92.88
		CO2	98.58	82.63	93.80
		CO3	99.29	81.69	94.01
		CO4	97.87	79.81	92.45
		CO5	97.87	81.22	92.88
U14GE302	PACE	CO1	93.62	82.86	90.39
		CO2	90.78	83.33	88.55
		CO3	86.52	83.10	85.50
		CO4	94.33	80.75	90.25
		CO5	94.33	81.69	90.54
U14GE303	Communication Skill Lab	CO1	100.00	81.92	94.58
		CO2	100.00	83.10	94.93
		CO3	100.00	83.80	95.14
U14EC306	Digital Lab	CO1	99.29	81.22	93.87
		CO2	99.29	83.33	94.50
		CO3	99.29	83.33	94.50
U14EC305	Electronics lab	CO1	97.87	81.22	92.88
		CO2	100.00	83.10	94.93

		CO3	100.00	83.10	94.93
U14MAT401C	Probability and random process	CO1	73.76	81.09	75.96
		CO2	69.50	82.51	73.40
		CO3	70.21	82.51	73.90
		CO4	78.72	80.85	79.36
		CO5	78.72	80.85	79.36
U14EC401	Electromagnetic fields	CO1	78.72	79.67	79.01
		CO2	82.27	83.22	82.55
		CO3	92.20	82.03	89.15
		CO4	97.16	79.91	91.99
		CO5	97.16	81.32	92.41
U14EC402	Electronic circuits	CO1	83.69	82.51	83.33
		CO2	91.49	81.56	88.51
		CO3	96.45	79.91	91.49
		CO4	97.87	81.80	93.05
		CO5	97.87	79.43	92.34
U14EC403	Linear integrated circuits	CO1	93.62	82.27	90.21
		CO2	94.33	83.45	91.06
		CO3	92.91	82.98	89.93
		CO4	95.74	85.34	92.62
		CO5	95.74	82.27	91.70
U14EE407	Control systems	CO1	79.43	82.51	80.35
		CO2	79.43	77.54	78.87
		CO3	80.14	75.18	78.65
		CO4	90.78	75.89	86.31
		CO5	90.78	70.45	84.68
U14EC404	Measurements and instrumentation	CO1	95.04	80.14	90.57
		CO2	95.04	78.49	90.07
		CO3	92.20	82.03	89.15
		CO4	93.62	82.03	90.14
		CO5	93.62	72.10	87.16
U14GE402	Personality and career enhancement	CO1	94.33	79.91	90.00
		CO2	92.91	82.98	89.93
		CO3	91.49	82.03	88.65
		CO4	97.16	80.14	92.06
		CO5	97.16	81.56	92.48
U14EC406	Electronic circuit and simulation Laboratory	CO1	100.00	81.56	94.47
		CO2	100.00	83.45	95.04
		CO3	100.00	83.45	95.04
U14EC405	Linear integrated circuits Laboratory	CO1	100.00	81.56	94.47
		CO2	100.00	83.69	95.11
		CO3	100.00	83.69	95.11
U14MAT501B	Numerical methods	CO1	78.01	81.09	78.94

		CO2	81.56	81.09	81.42
		CO3	80.14	82.51	80.85
		CO4	79.43	82.51	80.35
		CO5	79.43	83.69	80.71
U14EC501	Analog communication systems	CO1	65.25	81.09	70.00
		CO2	73.05	80.61	75.32
		CO3	78.01	81.80	79.15
		CO4	68.09	81.56	72.13
		CO5	68.09	82.74	72.48
U14EC502	Digital signal processing	CO1	75.18	83.45	77.66
		CO2	66.67	81.09	70.99
		CO3	61.70	82.03	67.80
		CO4	82.98	82.74	82.91
		CO5	82.98	82.98	82.98
U14EC503	Transmission lines and waveguides	CO1	47.52	82.27	57.94
		CO2	53.90	82.98	62.62
		CO3	54.61	82.27	62.91
		CO4	62.41	84.40	69.01
		CO5	62.41	82.74	68.51
U14EC504	Microprocessor and its application	CO1	82.98	83.45	83.12
		CO2	82.27	82.98	82.48
		CO3	79.43	82.51	80.35
		CO4	91.49	82.98	88.94
		CO5	91.49	82.74	88.87
U14EC505	Computer networks	CO1	63.12	85.34	69.79
		CO2	61.70	83.45	68.23
		CO3	65.25	85.34	71.28
		CO4	75.18	82.98	77.52
		CO5	75.18	83.45	77.66
U15EC501	Personality and Carrier Enhancement	CO1	44.68	84.40	56.60
		CO2	65.25	83.45	70.71
		CO3	85.11	83.92	84.75
		CO4	61.70	83.92	68.37
		CO5	61.70	84.87	68.65
U14EC508	Computer networks Lab	CO1	94.33	85.82	91.77
		CO2	97.16	84.63	93.40
		CO3	100.00	85.82	95.74
U14EC507	Digital signal processing Lab	CO1	100.00	85.58	95.67
		CO2	100.00	84.16	95.25
		CO3	99.29	86.29	95.39
U14EC506	Microprocessor lab	CO1	98.58	85.11	94.54
		CO2	98.58	85.82	94.75
		CO3	98.58	84.63	94.40

U14EC601	Digital Image Processing	CO1	78.72	82.74	79.93
		CO2	74.47	82.74	76.95
		CO3	68.79	83.69	73.26
		CO4	92.20	84.87	90.00
		CO5	92.20	83.45	89.57
U14EC602	Digital communication	CO1	59.57	85.11	67.23
		CO2	66.67	85.58	72.34
		CO3	74.47	85.58	77.80
		CO4	75.89	82.98	78.01
		CO5	75.89	86.05	78.94
U14EC603	Antenna and wave propagation	CO1	69.50	86.05	74.47
		CO2	72.34	83.45	75.67
		CO3	74.47	84.16	77.38
		CO4	78.72	82.74	79.93
		CO5	78.72	83.45	80.14
U14EC604	VLSI design	CO1	78.01	86.05	80.43
		CO2	67.38	83.69	72.27
		CO3	61.70	85.58	68.87
		CO4	78.72	83.69	80.21
		CO5	78.72	86.05	80.92
U14EC605	Micro controller and RISC architecture	CO1	58.87	85.34	66.81
		CO2	59.57	86.29	67.59
		CO3	68.79	83.22	73.12
		CO4	85.11	85.82	85.32
		CO5	85.11	85.11	85.11
U14EC606	Medical instrumentation	CO1	67.38	86.29	73.05
		CO2	66.67	84.63	72.06
		CO3	71.63	84.63	75.53
		CO4	88.65	83.69	87.16
		CO5	88.65	85.58	87.73
U14GE601	Personality and Career enhancement - iv	CO1	88.65	83.69	87.16
		CO2	88.65	86.29	87.94
		CO3	94.33	86.29	91.91
		CO4	69.50	85.58	74.33
		CO5	69.50	84.16	73.90
U14EC607	Communication laboratory (Analog, Digital and RF)	CO1	91.49	82.98	88.94
		CO2	94.33	85.34	91.63
		CO3	93.62	86.05	91.35
U14EC609	Digital image processing laboratory	CO1	100	84.16	95.25
		CO2	100	83.69	95.11
		CO3	100	86.29	95.89
U14EC608	VLSI laboratory	CO1	99	83.45	94.34
		CO2	100	83.22	94.96

		CO3	100	86.05	95.82
U14EC610	Mini project	CO1	85.82	84.16	85.32
		CO2	85.82	82.74	84.89
		CO3	95.74	86.05	92.84
U14EC701	Wireless networks	CO1	73.76	95.68	80.34
		CO2	76.60	91.61	81.10
		CO3	80.14	89.69	83.01
		CO4	78.01	81.06	78.93
		CO5	78.01	78.42	78.14
U14EC702	Optical fiber communication	CO1	73.05	95.92	79.91
		CO2	77.30	93.76	82.24
		CO3	78.72	88.73	81.73
		CO4	84.40	76.02	81.88
		CO5	84.40	75.54	81.74
U14EC703	Microwave engineering	CO1	81.56	92.75	84.92
		CO2	82.98	91.55	85.55
		CO3	89.36	89.86	89.51
		CO4	90.07	79.95	87.04
		CO5	90.07	76.09	85.88
U14EC912	Computer hardware and interfacing	CO1	70.40	93.55	77.34
		CO2	73.60	90.86	78.78
		CO3	72.80	87.90	77.33
		CO4	84.80	77.96	82.75
		CO5	84.80	77.15	82.51
U14EC920	Elective Nano electronics	CO1	73.91	95.45	80.38
		CO2	78.26	95.45	83.42
		CO3	82.61	92.42	85.55
		CO4	91.30	81.82	88.46
		CO5	91.30	74.24	86.19
U14EC921	Elective embedded and real time system	CO1	74.63	93.94	80.42
		CO2	80.60	90.91	83.69
		CO3	89.55	88.38	89.20
		CO4	73.88	79.55	75.58
		CO5	73.88	77.53	74.97
U14GE701	Professional ethics	CO1	73.76	98.32	81.13
		CO2	74.47	96.88	81.19
		CO3	75.18	91.13	79.96
		CO4	68.79	77.46	71.39
		CO5	68.79	75.06	70.67
U14EC706	Project phase I	CO1	97.16	93.05	95.93
		CO2	97.16	89.45	94.85
		CO3	97.16	89.21	94.78
U14EC704	Optical and microwave lab	CO1	98.58	92.81	96.85

		CO2	99.29	92.81	97.35
		CO3	98.58	89.45	95.84
U14EC705	Electronics design lab	CO1	99.29	92.81	97.35
		CO2	99.29	91.61	96.99
		CO3	99.29	88.73	96.12
U14EC801	Cellular and Mobile Communication	CO1	52.52	99.25	66.54
		CO2	60.43	98.51	71.85
		CO3	62.59	89.30	70.60
		CO4	64.03	77.44	68.05
		CO5	64.03	75.69	67.53
U14EC802	Disaster Management	CO1	70.50	94.78	77.79
		CO2	75.54	92.54	80.64
		CO3	82.01	88.56	83.98
		CO4	84.89	78.36	82.93
		CO5	84.89	77.61	82.71
U14EC922	Satellite Communication	CO1	56.10	93.00	67.17
		CO2	65.04	92.72	73.34
		CO3	68.29	89.64	74.70
		CO4	69.92	79.27	72.72
		CO5	69.92	77.03	72.05
U14EC925	Telecommunication and Switching Network	CO1	88.06	92.31	89.33
		CO2	89.55	90.26	89.76
		CO3	82.09	87.18	83.62
		CO4	88.06	78.46	85.18
		CO5	88.06	73.85	83.80
U14EC926	Television and Video Processing	CO1	55.68	96.03	67.79
		CO2	65.91	92.46	73.87
		CO3	73.86	88.89	78.37
		CO4	82.95	80.16	82.12
		CO5	82.95	80.16	82.12
U14EC803	Project Phase II	CO1	100.00	93.03	97.91
		CO2	100.00	93.03	97.91
		CO3	100.00	92.29	97.69

3.3 Attainment of Program Outcomes and Program Specific Outcomes (75)

3.3.1.Describe assessment tools and processes used for measuring the attainment of each Program Outcome and Program Specific Outcomes (10)

Direct Assessment:

PO Assessment Tools are categorized into direct and indirect methods to assess the program outcomes and program Specific outcomes.

Continuous internal evaluation, semester end examinations, assignments and seminars are used for CO calculation. Rubric values calculated for individual course are formulated and summed for assessing the POs. The weighted average of the POs for all the courses is calculated.

Indirect Assessment:

- The exit survey is a questionnaire prepared by faculty member and answered by every individual student about the program after the completion of program. This is collected from the graduating students of that year.
- The recruiters survey is obtained from the recruiters of the department during placement drives.

The final PO attainment is sum of 70% of the direct assessment,20% of exit survey and 10% of recruiter survey.

3.3.2. Provide results of evaluation of each PO & PSO (65)

(The attainment levels by direct (student performance) and indirect (surveys) are to be presented through Program level Course PO&PSO matrices as indicated).

PO Attainment for 2014-18 Batch

COURSE CODE	COURSE TITLE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
U14ENG101	TECHNICAL ENGLISH – I	0.00	0.00	0.00	0.00	95.06	95.06	95.06	95.06	95.06	95.06	95.06	95.06	95.06	95.06
U14MAT102	MULTIVARIABLE CALCULUS AND MATRICES	83.79	83.79	83.79	83.79	83.79	83.79	0.00	0.00	0.00	0.00	83.79	83.79	83.79	83.79
U14PHY103	ENGINEERING PHYSICS	89.28	89.28	89.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	89.28	89.28	89.28
U14CHE104	ENGINEERING CHEMISTRY	88.24	88.24	88.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	88.24	88.24	88.24
U14FOC105	FUNDAMENTALS OF COMPUTING SYSTEMS	81.28	0.00	81.28	81.28	81.28	81.28	0.00	0.00	81.28	0.00	81.28	81.28	81.28	81.28
U14BEE106	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	90.53	90.53	90.53	90.53	0.00	0.00	0.00	0.00	90.53	0.00	90.53	90.53	90.53	90.53
U14PCL107	PHYSICS & CHEMISTRY LABORATORY-1	92.34	0.00	0.00	0.00	0.00	0.00	92.34	0.00	92.34	0.00	0.00	92.34	92.34	92.34
U14CPL108	COMPUTER PRACTICES LABORATORY	90.57	90.57	90.57	90.57	90.57	90.57	0.00	0.00	90.57	0.00	0.00	90.57	90.57	90.57
U14EPL109	2 ENGINEERING PRACTICES LABORATORY	98.23	98.23	98.23	98.23	0.00	0.00	0.00	0.00	98.23	0.00	98.23	98.23	98.23	98.23
U14ENG201	TECHNICAL ENGLISH – II	0.00	0.00	0.00	0.00	92.21	92.21	92.21	92.21	92.21	92.21	92.21	92.21	92.21	92.21
U14MAT202	VECTOR CALCULUS, DIFFERENTIAL EQUATIONS AND COMPLEX ANALYSIS	83.66	83.66	83.66	83.66	83.66	83.66	0.00	0.00	0.00	0.00	83.66	83.66	83.66	83.66
U14PHY203	MATERIAL SCIENCE	91.56	91.56	91.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91.56	91.56	91.56
U14CHE205A	CHEMISTRY FOR ELECTRICAL AND ELECTRONICS ENGINEERS	77.15	77.15	77.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.15	77.15	77.15

U14CPR206	PROGRAMMING IN C	73.62	73.62	73.62	73.62	73.62	73.62	0.00	0.00	73.62	0.00	0.00	73.62	73.62	73.62
U14EGR207	ENGINEERING GRAPHICS	86.82	0.00	86.82	0.00	86.82	86.82	0.00	0.00	0.00	0.00	86.82	86.82	86.82	86.82
U14PCL208	PHYSICS AND CHEMISTRY LABORATORY - II	93.96	93.96	93.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	93.96	93.96	93.96
U14CPL209	C PROGRAMMING LABORATORY	91.57	91.57	91.57	91.57	91.57	91.57	0.00	0.00	91.57	0.00	0.00	91.57	91.57	91.57
U14BEEL210	BASIC ELECTRICAL AND ELECTRONICS ENGINEERING LABORATORY	91.91	91.91	91.91	91.91	0.00	0.00	0.00	0.00	91.91	0.00	91.91	91.91	91.91	91.91
U14GE301A	TRANSFORMS AND PARTIAL DIFFERENTIAL EQUATIONS	82.05	82.05	82.36	82.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	82.05	82.05	82.05
U14EC302	ELECTRON DEVICES AND CIRCUITS	89.66	89.66	89.66	89.66	89.66	89.66	0.00	0.00	89.66	89.66	89.66	89.66	89.66	89.66
U14EE310	ELECTRICAL ENGINEERING	89.22	89.25	89.22	89.22	89.22	89.22	89.22	89.22	0.00	89.22	89.22	89.22	89.22	89.22
U14EC303	DIGITAL ELECTRONICS	89.51	89.51	89.51	89.51	89.42	89.51	0.00	0.00	0.00	90.29	89.51	89.51	89.51	89.51
U14EC304	SIGNALS AND SYSTEMS	85.71	85.71	85.71	85.71	85.71	0.00	0.00	0.00	0.00	0.00	85.71	85.71	85.71	85.71
U14CHE304	ENVIRONMENTAL SCIENCE	0.00	0.00	93.20	93.20	92.88	93.20	93.20	93.20	93.20	0.00	93.20	93.20	93.20	93.20
U14GE302	PERSONALITY AND CAREER ENHANCEMENT - I	0.00	0.00	0.00	89.04	0.00	89.10	0.00	0.00	89.08	89.04	89.04	89.04	89.04	89.04
U14EC305	ELECTRONIC CIRCUITS LABORATORY	94.25	94.25	94.25	94.25	94.25	0.00	0.00	0.00	94.25	0.00	94.25	94.25	94.25	94.25
U14EC306	DIGITAL ELECTRONICS LABORATORY	94.29	94.29	94.29	94.29	94.29	0.00	0.00	0.00	94.29	0.00	94.29	94.29	94.29	94.29
U14GE303	COMMUNICATION SKILLS LABORATORY	94.58	94.93	94.93	0.00	95.14	94.95	94.88	94.88	94.88	94.88	94.88	94.92	0.00	0.00
U14MAT401C	PROBABILITY AND RANDOM PROCESSES	76.40	76.40	0.00	76.40	0.00	76.40	0.00	0.00	0.00	0.00	76.40	76.40	76.40	76.40
U14EC401	ELECTROMAGNETIC FIELD	87.02	87.02	87.02	87.02	87.02	87.02	0.00	0.00	0.00	0.00	87.02	87.02	87.02	87.02
U14EC402	ELECTRONIC CIRCUITS	89.74	89.74	89.92	89.74	89.74	89.74	0.00	0.00	0.00	0.00	89.74	89.74	89.74	89.74

U14EC403	LINEAR INTEGRATED CIRCUITS	91.11	91.11	91.13	91.11	91.11	91.11	0.00	0.00	0.00	0.00	91.11	91.11	91.11	91.11
U14EE407	CONTROL SYSTEMS	81.77	81.77	81.76	81.77	81.77	81.77	0.00	0.00	0.00	0.00	81.77	81.77	81.77	81.77
U14GE402	PERSONALITY AND CAREER ENHANCEMENT - II	0.00	0.00	90.62	0.00	0.00	0.00	0.00	90.62	90.62	90.62	90.62	0.00	90.62	90.62
U14EC404	MEASUREMENTS AND INSTRUMENTATION	89.42	89.42	89.58	89.42	89.42	89.42	89.42	0.00	0.00	0.00	89.42	89.42	89.42	89.42
U14EC405	LINEAR INTEGRATED & CIRCUITS LABORATORY	94.89	94.89	94.89	94.89	0.00	0.00	0.00	0.00	94.89	94.89	94.89	94.89	94.89	94.89
U14EC406	ELECTRONIC CIRCUITS AND SIMULATION LABORATORY	94.85	94.85	94.85	94.85	95.04	0.00	0.00	0.00	94.85	94.85	94.85	94.85	94.85	94.85
U14MAT501B	NUMERICAL METHODS	80.45	80.45	80.45	80.45	80.45	80.45	0.00	0.00	0.00	0.00	80.45	80.45	80.45	80.45
U14EC501	ANALOG COMMUNICATION SYSTEMS	73.82	73.82	73.82	74.09	73.82	73.82	0.00	0.00	0.00	0.00	73.82	73.82	73.82	73.82
U14EC502	DIGITAL SIGNAL PROCESSING	76.47	75.47	75.29	75.47	76.38	76.47	0.00	0.00	0.00	0.00	76.47	76.47	76.47	76.47
U14EC503	TRANSMISSION LINES AND WAVEGUIDES	64.20	64.20	64.88	64.20	65.16	64.20	0.00	0.00	0.00	0.00	64.20	64.20	64.20	64.20
U14EC504	MICROPROCESSOR AND ITS APPLICATION	84.75	84.75	84.75	84.75	84.75	84.75	84.75	0.00	0.00	0.00	84.75	84.75	84.75	84.75
U14EC505	COMPUTER NETWORKS	72.89	72.89	72.89	72.89	72.89	72.89	0.00	0.00	0.00	0.00	72.89	72.89	72.89	72.89
U14EC508	COMPUTER NETWORKS LAB	93.64	93.64	93.64	93.64	93.64	0.00	93.64	0.00	93.64	0.00	0.00	93.64	93.64	93.64
U14EC507	DIGITAL SIGNAL PROCESSING LAB	95.44	95.44	95.44	95.44	95.44	95.44	0.00	0.00	0.00	95.44	95.44	95.44	95.44	95.44
U14EC506	MICPROCESSOR LAB	94.56	94.56	94.56	94.56	94.56	94.56	0.00	0.00	0.00	94.56	94.56	94.56	94.56	94.56
U15EC501	PERSONALITY AND CARRIER ENHANCEMENT	0.00	0.00	69.82	0.00	0.00	0.00	0.00	69.82	69.82	69.82	69.82	0.00	69.82	69.82
U14EC601	DIGITAL IMAGE PROCESSING	81.94	81.94	81.94	81.94	81.94	0.00	0.00	0.00	0.00	81.94	81.94	81.94	81.94	81.94

U14EC602	DIGITAL COMMUNICATION	74.87	74.87	74.87	74.87	74.87	0.00	0.00	0.00	0.00	74.87	74.87	74.87	74.87	74.87
U14EC603	ANTENNA AND WAVE PROPAGATION	77.52	76.83	77.52	77.52	77.52	77.52	0.00	0.00	0.00	77.52	77.52	77.52	77.52	77.52
U14EC604-	VLSI DESIGN	76.54	76.54	76.54	76.54	76.54	76.54	0.00	0.00	0.00	76.54	76.54	76.54	76.54	76.54
U14EC605-	MICRO CONTROLLER AND RISC ARCHITECTURE	75.59	77.78	75.59	77.78	75.59	75.59	0.00	0.00	0.00	75.59	75.59	75.59	75.59	75.59
U14EC606	MEDICAL INSTRUMENTATION	79.11	0.00	0.00	0.00	79.11	79.11	0.00	0.00	0.00	79.11	79.11	79.11	79.11	79.11
U14EC607	COMMUNICATION LABORATORY (ANALOG, DIGITAL AND RF)	90.64	90.64	90.64	90.64	90.64	0.00	0.00	0.00	90.64	0.00	90.64	90.64	90.64	90.64
U14EC609	DIGITAL IMAGE PROCESSING LABORATORY	95.41	95.41	95.41	95.41	95.41	0.00	0.00	0.00	95.41	0.00	95.41	95.41	95.41	95.41
U14EC608	VLSI LABORATORY	95.04	95.04	95.04	95.04	95.04	0.00	0.00	0.00	95.04	0.00	95.04	95.04	95.04	95.04
U14EC610	MINI PROJECT	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68
U14GE601	PERSONALITY AND CAREER ENHANCEMENT - IV	0.00	0.00	83.05	0.00	0.00	0.00	0.00	83.05	83.05	83.05	83.05	0.00	83.05	83.05
U14EC701	WIRELESS NETWORKS	73.99	73.99	73.99	73.99	73.99	0.00	0.00	0.00	0.00	73.99	73.99	73.99	73.99	73.99
U14EC702	OPTICAL FIBER COMMUNICATION	76.66	75.97	76.66	76.66	76.66	76.66	0.00	0.00	0.00	76.66	76.66	76.66	76.66	76.66
U14EC703	MICROWAVE ENGINEERING	75.67	75.67	75.67	75.67	75.67	75.67	0.00	0.00	0.00	75.67	75.67	75.67	75.67	75.67
U14EC912	COMPUTER HARDWARE AND INTERFACING	78.23	79.75	78.23	79.75	78.23	78.23	0.00	0.00	0.00	78.23	78.23	78.23	78.23	78.23
U14EC920	ELECTIVE NANO ELECTRONICS	78.23	0.00	0.00	0.00	78.23	78.23	0.00	0.00	0.00	78.23	78.23	78.23	78.23	78.23
U14EC921	ELECTIVE EMBEDDED AND REAL TIME SYSTEM	90.64	90.64	90.64	90.64	90.64	0.00	0.00	0.00	90.64	0.00	90.64	90.64	90.64	90.64
U14GE701	PROFESSIONAL ETHICS	95.41	95.41	95.41	95.41	95.41	0.00	0.00	0.00	95.41	0.00	95.41	95.41	95.41	95.41
U14EC706	PROJECT PHASE I	95.04	95.04	95.04	95.04	95.04	0.00	0.00	0.00	95.04	0.00	95.04	95.04	95.04	95.04

U14EC704	OPTICAL AND MICROWAVE LAB	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68	87.68
U14EC705	ELECTRONICS DESIGN LAB	0.00	0.00	83.05	0.00	0.00	0.00	0.00	83.05	83.05	83.05	83.05	0.00	83.05	83.05
U14EC801	CELLULAR AND MOBILE COMMUNICATION	68.92	71.23	69.07	69.51	68.92	68.92	0.00	0.00	0.00	68.68	68.92	68.92	68.92	68.92
U14EC802	DISASTER MANAGEMENT	81.61	81.61	0.00	0.00	81.61	81.61	81.61	81.61	81.61	81.61	81.61	81.61	81.61	81.61
U14EC922	SATELLITE COMMUNICATION	72.00	72.00	74.02	72.31	73.12	72.00	0.00	0.00	0.00	72.00	72.00	72.00	72.00	72.00
U14EC925	TELECOMMUNICATION AND SWITCHING NETWORK	86.34	84.20	86.34	84.20	86.34	86.34	0.00	0.00	0.00	86.34	86.34	86.34	86.34	86.34

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Direct Assessment	83.73	83.49	84.62	83.57	82.18	71.84	73.39	73.72	90.42	78.06	85.79	83.85	84.28	85.22
70% of Direct assessment	58.61	58.44	59.23	58.50	57.53	50.29	51.37	51.60	63.29	54.64	60.05	58.70	59.00	59.65
20% of Exit survey	17.23	15.78	16.86	15.53	16.11	17.58	16.68	17.15	16.58	17.08	16.58	17.05	16.22	16.69
10% of Recruiters survey	9.385	8.308	8.615	7.462	8.308	9.308	9.305	9.23	7.923	8.538	7.692	7.615	6.23	7.9231
PO Attainment	**85.22**	**82.53**	**84.71**	**81.49**	**81.94**	**77.18**	**77.36**	**77.99**	**87.79**	**80.26**	**84.32**	**83.36**	**81.44**	**84.27**

Table *B.3.3.2b*

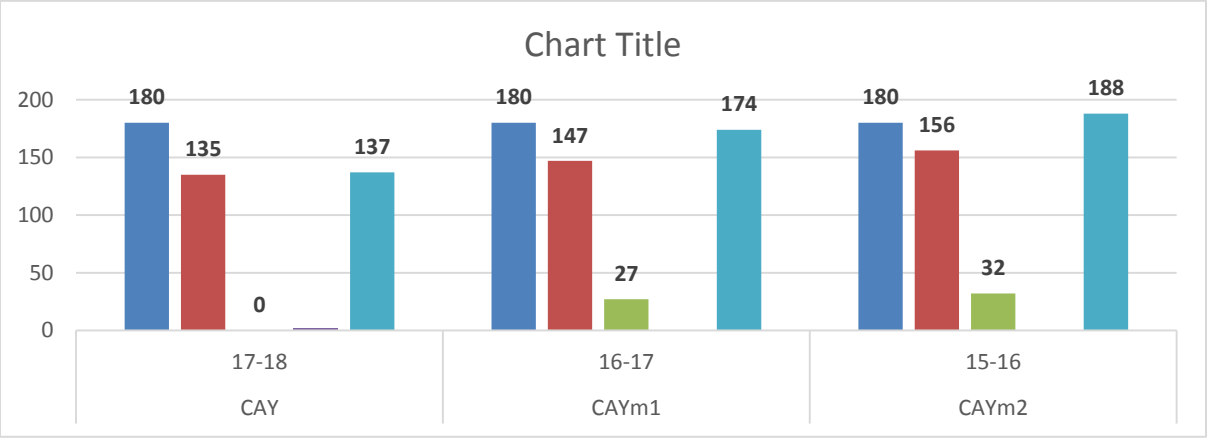
CRITERION 4

STUDENTS' PERFORMANCE

CRITERION 4	Students' Performance	100

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY 17-18	CAY m1 16-17	CAY m2 15-16
Sanctioned intake of the program (N)	180	180	180
Total number of students admitted in first year minus number of students migrated to other programs/institutions, plus no. of students migrated to this program (N1)	135	147	156
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	NA	27	32
Separate division students, if applicable (N3)	2	-	-
Total number of students admitted in the Program (N1 + N2 + N3)	**137**	**174**	**188**

Table B.4a



CAY – Current Academic Year

CAYm1- Current Academic Year minus1= Current Assessment Year

CAYm2 - Current Academic Year minus2=Current Assessment Year

minus 1 LYG – Last Year Graduate minus 1

LYGm1 – Last Year Graduate minus 1

LYGm2 – Last Year Graduate minus 2

Year of entry	N1 + N2 + N3 (As defined above)	Number of students who have successfully graduated without backlogs in any semester/year of study (Without Backlog means no compartment or failures in any semester/year of study)			
		I Year	II Year	III Year	IV Year
CAY (17-18)	135+0+2(137)				
CAYm1 (16-17)	147+27+0 (174)	84			
CAYm2 (15-16)	156+32+0 (188)	133	133		
CAYm3 (14-15)	115+24+2 (141)	94	88	79	
CAYm4 (13-14)	112+26+3 (141)	97	95	92	90
CAYm5 (LYG) (12-13)	122+24+5(151)	95	98	91	91
CAYm6 (LYGm1) (11-12)	121+23+14(158)	107	99	95	88

Table B.4b

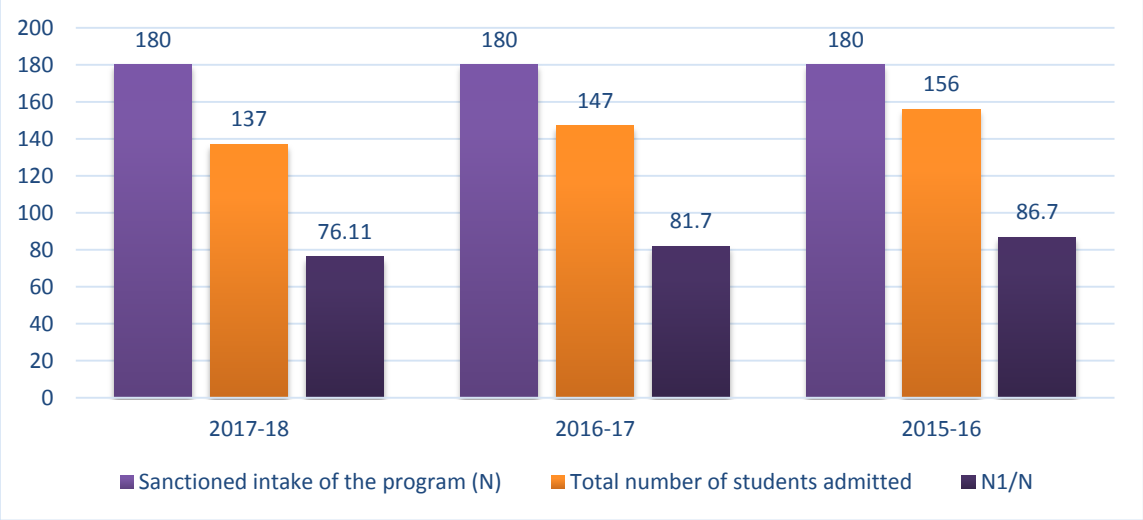
Year of entry	N1+N2+N3 (As define d above)	Number of students who have successfully graduated (Students with backlog in stipulated period of study)			
		I Year	II Year	III Year	IV Year
CAY (17-18)	135+0+2(137)				
CAY m1 (16-17)	147+27+0 (174)	18			
CAYm2 (15-16)	156+32+0 (188)	16	18		
CAYm3 (14-15)	115+24+2 (141)	21	16	37	
CAYm4 (13-14)	112+26+3 (141)	14	31	34	28
CAYm5 (LYG) (12-13)	122+24+5(151)	31	47	54	54
CAYm6 (LYGm1) (11-12)	121+23+14(158)	10	31	33	38

Table B.4c

4.1. Enrolment Ratio (20)

Enrolment Ratio= N1/N

	2017-18	2016-17	2015-16
Sanctioned intake of the program (N)	180	180	180
Total number of students admitted in first year minus number of students migrated to other programs / institutions, plus no. of students migrated to this program (N1)	137	147	156
N1/N	**76.11**	**81.7**	**86.7**
Average	**81.50**		



Note: Medical and Paramedical counseling is usually scheduled after Engineering counseling, so some students admitted through single window systems migrated to those courses.

Item (Students enrolled at the First Year Level on average basis during the last three years starting from current academic year)	Marks
>=90% students enrolled	20
>=80% students enrolled	18
>=70% students enrolled	16
>=60% students enrolled	14
Otherwise	0

Table B.4.1

4.2. Success Rate in the stipulated period of the program (20)

4.2.1Success rate without backlogs in any semester/year of study (15)

SI= (Number of students who have graduated from the program without backlog)/(Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry and separate division, if applicable)

Average SI = Mean of Success Index (SI) for past three batches

Success rate without backlogs in any semester/year of study = 15 × Average SI

Item	Latest Year of Graduation, LYG 2017	Latest Year of Graduation, Minus1 LYGm1 2016	Latest Year of Graduation Minus 2 , LYGm2 2015
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	141	151	158
Number of students who have graduated without backlogs in the stipulated period	90	91	88
Success Index (SI)	0.638	0.603	0.557
		Average SI	**0.599**
Success rate without backlogs in any semester/year of study = 15 × Average SI			**8.99**

Table B.4.2.1

4.2.2. Success rate with backlog in stipulated period of study (5)

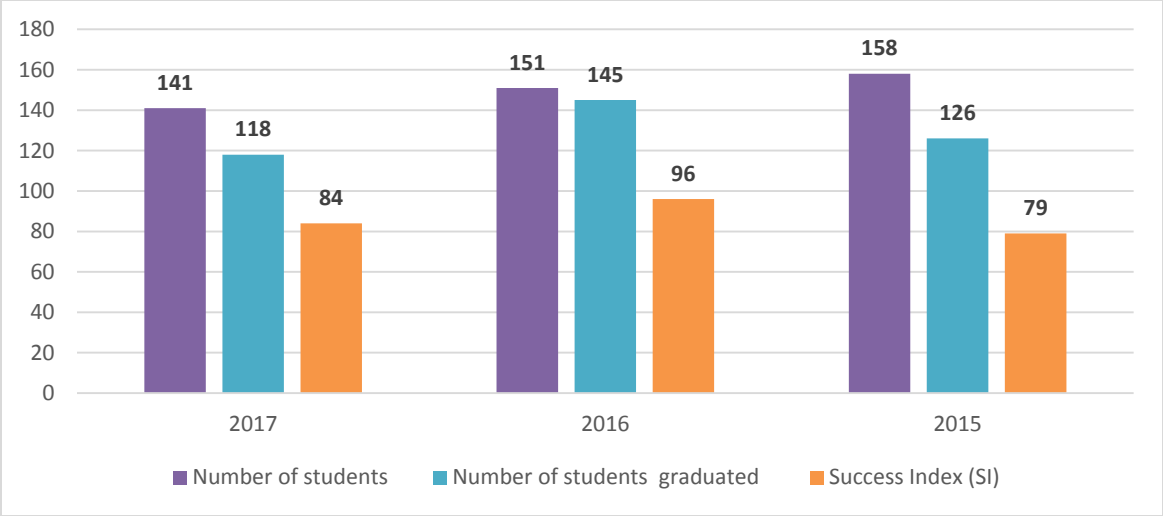
SI= (Number of students who graduated from the program in the stipulated period of course duration)/ (Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry and separate division, if applicable)

Average SI = mean of Success Index (SI) for past three batches

Success rate = 5 × Average SI

Item	Latest Year of Graduation, LYG 2017	Latest Year of Graduation, LYGm1 2016	Latest Year of Graduation minus 1, LYGm1 2015	
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	141	151	158	
Number of students who have graduated with backlogs in the stipulated period	118	145	126	
Success Index (SI)	0.84	0.96	0.797	
			Average SI	**0.866**
Success rate without backlogs in any semester/year of study = 5 × Average SI				**4.33**

Table B.4.2.2



Note: If 100% students clear without any backlog then also total marks scored will be 20 as both 4.2.1 & 4.2.2 will be applicable simultaneously.

4.3. Academic Performance in Second Year (10)

Academic Performance = Average API (Academic Performance Index), where

API = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the Third year.

Academic Performance	CAYm1 (16-17)	CAYm2 (15-16)	CAYm3 (14-15)
Mean of CGPA or Mean Percentage of all successful students (X)	8.23	8.37	8.36
Total no. of successful students (Y)	188	142	141
Total no. of students appeared in the examination (Z)	188	142	141
API = X* (Y/Z)	**8.23**	**8.37**	**8.36**
Average API = (AP1 + AP2 + AP3)/3	**8.32**		

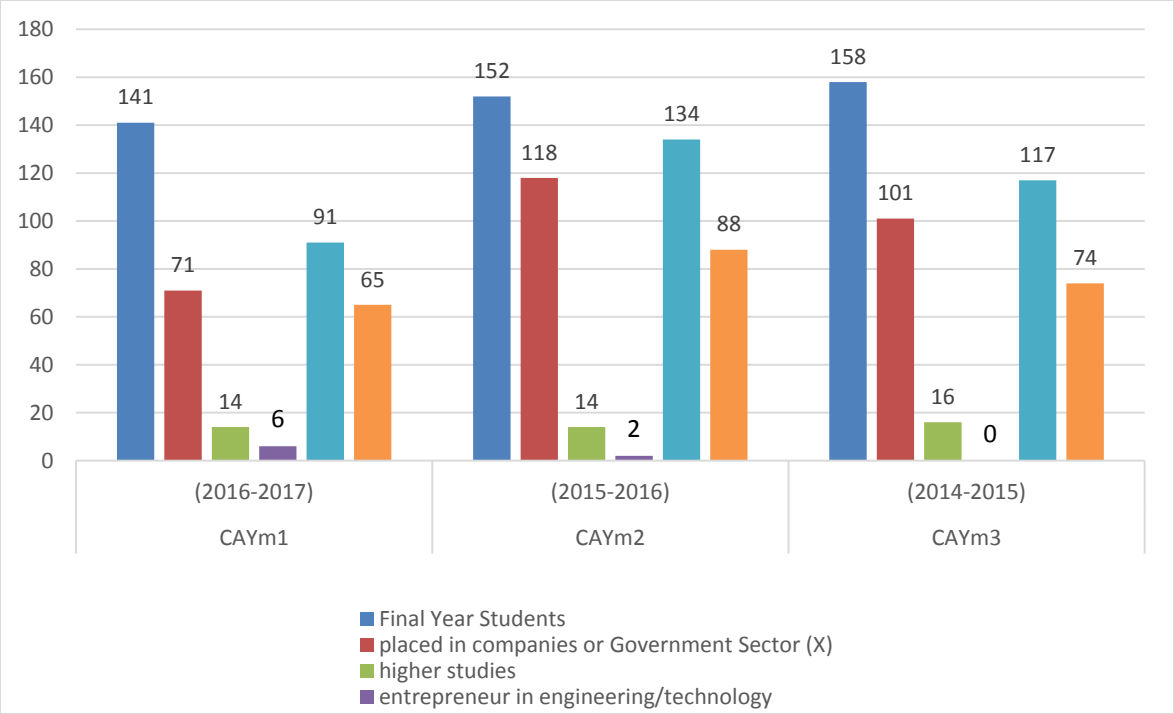
Table B.4.3

4.4. Placement, Higher Studies and Entrepreneurship (30)

Assessment Points = 30 × average placement

Item	CAYm1 (2016-2017)	CAYm2 (2015-2016)	CAYm3 (2014-2015)
Total No. of Final Year Students	141	152	158
No. of Students placed in companies or Government Sector (X)	71	118	101
No. of Students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level Tests, GRE, GMAT etc) (Y)	14	14	16
No. of students turned entrepreneur in engineering/technology (Z)	6	2	-
X + Y + Z	91	134	117
Placement Index : (X + Y + Z) / N	0.65	0.88	0.74
Average placement = (P1+P2+P3)/3	**0.76**		
Assessment Points = 30 x average placement	**22.8**		

Table B.4.4



4.5 Professional Activities (20)

Provide data for the past 3 years – CAY, CAYm1 and CAYm2

4.5.1 Professional societies/chapters and organizing engineering events (5)

Professional Activities

S.No	Professional Societies
1.	Institution of Electronics and Telecommunication Engineers (IETE)
2.	Indian Society for technical education (ISTE)
3.	Institute of Electrical and Electronics Engineers (IEEE)

YEAR	Professional Society/ Chapters/ Organisation	DATE	EVENT & TITLE	RESOURCE PERSON	No. of students attended
2017-18	Guest Lecture	16.08.2017	"IoT and its future perspectives for smart cities in India"	Dr.S.Arumuga Perumal Chairman,IET, Thiruvanathapuram.	150
	Guest Lecture	31.08.2017	Ground-breaking Project dreams for enhancing Knowledge of Budding Engineers "	Mr.Harsha Prasanna.K. PCEO, SALIEABS Electronic Engineers LLP, Salem.	140
	Guest Lecture	23.09.2017	"Microwave Integrated Circuits "	Dr.T.Shanmuganathan, Professor, Pondicherry.	142
	Guest Lecture	09.09.2017	"Industry needs from freshers"	Ms.S.Preethika, Associate Software Engineer, Robert Bosch, Coimbatore.	145
	Guest Lecture	26.09.2017	"Do your engineering rather studying"	Mr.Sundaramoorthy, Sunshive Electronic Solutions, Coimbatore.	145
	Seminar	25.09.2017	Mentor Graphics caliber D2S	Dr.N.Sasirekha, AP/ECE,SCT. Mr.P.Vivek Karthik, AP/ECE, SCT.	40
	FDP	19.07.2017	RF Signal Generation and Spectral Measurements	Agilent Technologies, Chennai	30
	Continuing education	05.06.2017 to 10.06.2017	PCB design & fabrication	Mr.S.Sree Southry, AP/ECE SCT. Mr.A.Ayub Khan,	25

		& 18.09.2017 to 03.10.2017		AP/ECE	
	Continuing education	06.06.2017	Digital Image processing using open CV and Python	Mr.P.M.Dinesh, AP/ECE SCT. Mr.R.Anand, AP/ECE SCT.	40
	Continuing education	11.09.2017	Basic C programming in Continuous Time & Discrete time signal using GNURADIO	Mr.P.M.Dinesh, AP/ECE SCT. Mr.R.Anand, AP/ECE SCT.	40
	Guest Lecture	29.12.2017	"Bionics"	Mr.Dhruv,MD, Asia Pacific. Mr.Rashmikant Joshi,MD,Chennai. Chennai.Festo India.	180
	Training programme	13.12.2017 – 29.12.2017	Engineering applications using LabVIEW	Mr.Esakki, National Instruments, Bangalore.	40
	Guest Lecture	09.01.2018	Visual Recognition – Oppurtunities to improve our lives	Dr.S.Md.Mansoor Roomi, Professor, Thiagarajar College of Engineering, Madurai.	142
	Guest Lecture	02.02.2018	Fundamentals of Antenna Design	Dr. K. Malathi, ASP/ECE, Anna University, CEG Campus, Chennai.	42
	Technical expo	08.02.2018	Electroblitz	Dr.S.R.R.Senthil Kumar, Principal, Sona College of Technology.	400
	Guest lecture	13.02.2018	Cyber security	Mr.Aswin Gowtham, Senior Consultant, Livewire Corporate	140

				Office, Chennai.	
	Workshop	28.02.2018 & 01.03.2018	Hands on Training on Industry ready Engineering	Mr.Sundaramoorthy, Sunshive Electronic Solutions, Coimbatore.	57
	National level technical symposium	02.03.2018	Fractals	Prof.K.Jayaraman, Director, United Electronics, Bangalore.	400
	Guest Lecture	21.03.2018	5 Traits to be a successful professional	Mr.K.Shiva, Team Lead, Accenture,Bangalore.	145
	National Conference	23.03.2018	Emerging Trends in Signal & Image Processing, Communication, VLSI Design and Nano Technology	Er.Tata Sudhakar, Group Head – Ocean Electronics Group, Ministry of earth sciences, Govt of India.	60
	Workshop	19.05.2018 to 27.05.2018	Python Programming	Mr.Das Sharma, Knowvic Solutions, Bangalore.	107
2016-2017	IETE	11.08.16 & 12.08.16	Workshop on "LabVIEW for Machine Learning of Images"	National Instruments, Bangalore.	30
	IETE	12.09. 16	Guest Lecture - Electromagnetics in Rehabilitation& Science of Yoga	Dr. T.M. Srinivasan, Professor Yoga & Physical Sciences, S-VYASA university,	146
	UNECS	21.09.16	Guest Lecture - Challenges And opportunities: Core	Dr. Cyril prasanna raj Prof/Dean, Dept.of CSE. MS Engineering College Bangalore.	146

			Companies, Higher Education And Entrepreneurship		
	UNECS	24.10. 16	Guest Lecture - CHAOS functions on Cryptography	Dr.B.R.Sujatha Professor &Head, Dept. Of ECE Malnad College of Engineering, Hasan, Karnataka.	146
	IETE	22.03.17	Symposium - Fractals'17	Dr.G.K.D.Prasanna Venkatesan, Dean – R&D, S.N.S College of Technology,Coimbatore.	440
2015-2016	UNECS	07.07.2015 to 10.07.2015	Ideation Camp – INTEL Galileo Board	Mr. Raghav Ankur , National Manager-Technical, Technical trainer Ms. Yamini Shali FICE.	70
	IETE	11.08.15	Guest Lecture - Entrepreneurship and Present Scenario in Industries	Mr.R.Devaraj, CEO,Real Power Vision, Bangalore.	440
	UNECS	11.08.15	Guest Lecture - Job Oppurtunities for Engineering Students	Mr.Gangadharan. C Head-Technical Support Group, Real Power Vision, Bangalore.	142
	UNECS	13.08.15 & 14.08.15	Workshop - Management Ethics through Games	Mr.S.Aravind, Divisional Manager, The JOB GLAD Division, Synergy Life – Group of Companies	65
	IETE	13.08.2015	Workshop on	National Instruments,	30

			Labview and its applications	Bangalore.	
	UNECS	05.09.15	Guest Lecture - Microstrip Lines	Dr.T.Shanmuganathan, Assistant Professor, Pondicherry University, Pondicherry.	146
	UNECS	10.09.15	Workshop - Web Bench	Mr.Sivaraman, Agilent Technologies, Bangalore.	146
	UNECS	22.09.15	Intra-college Technical symposium - Electroblitz'16		
	IETE	4.2.16 to 6.2. 16	Workshop - IoT	Mr.T.N.Raj Vignesh Mr.Harsha Prasanna Salieabs Electronics Engineers LLP,Salem.	40
	UNECS	06.02.16	Guest Lecture - Expectations of Core Industries from today's Graduates	Mr.Vignesh Nair, Livewire, A Division of CADD Center, Chennai.	146
	IETE	06.02.16	Guest Lecture - Do your Engineering rather than studying	Mr.Sundaramoorthy, MD, Sunshive Electronics Solutions, Coimbatore.	185
	ISTE	13.02.16	Guest Lecture - Design and Fabrication of PCB	Mr.Raj Sekar, Rana Power Solutions, Bangalore.	185
	UNECS	20.02.16	Guest Lecture - Expectation of Corporate from Fresher's	Mr.K.Vinoth Kumar Bosch, Coimbatore. Mr.S.Sundar Raj, CTS, Chennai	142
	IETE	22.03.16	Symposium - Fractals'16		

4.5.2. Publication of technical magazines, newsletters, etc. (5)

A newsletter "Electro Nova" is prepared and published quarterly by the students of the Electronics and Communication Engineering. The newsletter focuses on the current happenings (trends) in the Core / IT Industry, placements and training information and higher education opportunities.

An annual magazine is published every year by the department which contains technical / non-technical articles, literature and art. This provides an opportunity for the students to explore and understand the skill of writing and publishing.

Publication Details:

S.No	Name of the Newsletter	Editorial Members	Periodicity	Year of publishing
1.	Transforms & Algorithms for SIP	Dr.R.S.Sabeenian, Prof & Head Student Members: Karthik.D Ajith Kumar	Annual	2017 -18
2.	Microelectronics to Nano electronics	Dr.R.S.Sabeenian, Prof & Head Dr.K.R.Kavitha,Asso Professor Student members: Lingesh Vijay Nithish	Annual	2017 – 18
3.	EIoT – Embedded Systems and Internet of Things	Dr.R.S.Sabeenian, Prof & Head. Ms.S.Deepa,Asso Professor Student members: Shriram Ram Prasath	Annual	2017 – 18
4.	World in seconds - Communication	Dr.R.S.Sabeenian, Prof/Head. Dr.R.Vinod Kumar,Professor Student members: R.Dhinesh M.Tharani	Annual	2017 – 18
5.	Transforms & Algorithms for SIP	Dr.R.S.Sabeenian,Prof/Head Dr.K.R.Kavitha, Asso Professor Student Members: Akshaya Anandhy	Annual	2016 - 17
6.	Microelectronics to Nanoelectronics	Dr.R.S.Sabeenian,Prof/Head Dr.S.Jayapoorani,Asst.Professor Student Members: Nishanth Ramadass	Annual	2016 – 17
7.	EIoT – Embedded Systems and Internet of Things	Dr.R,S.SabeenianProf/Head Mr.A.Ayub Khan, Asst.Professor Student Members:	Annual	2016 – 17

		R.K.Siva Narendiran		
8.	World in seconds - Communication	Dr.R.Sabenian,Prof/Head Mr.G.Ravi,Asst.Professor Student Members: Sameera Bhargav Sindhu Nisha	Annual	2016 – 17
9.	Transforms & Algorithms for SIP	Dr.K.R.Kashwan,Prof/Head Dr.K.R.Kavitha, Asso Professor Student Members: Akshaya Anandhy	Annual	2015 - 16
10.	Microelectronics to Nanoelectronics	Dr.K.R.Kashwan,Prof/Head Dr.S.Jayapoorani,Asst.Professor Student Members: Nishanth Ramadass	Annual	2015 – 16
11.	EIoT – Embedded Systems and Internet of Things	Dr.K.R.Kashwan,Prof/Head Mr.A.Ayub Khan, Asst.Professor Student Members: R.K.Siva Narendiran	Annual	2015 – 16
12.	World in seconds - Communication	Dr.K.R.Kashwan,Prof/Head Mr.G.Ravi,Asst.Professor Student Members: Sameera Bhargav Sindhu Nisha	Annual	2015 – 16

4.5.3 Participation in inter-institute events by students of the program of study (10)

Include a Table having those publications, which fetch awards by students in the events/conferences organized by other institutes. Include a tabulated list of all other student publications in a separate annexure.

Co-curricular activities:

Year 2017-18

S.No	Name	Prize/ Participation	Title	Event place	Level
1.	K. Jayanthi	Best paper award	NCFCSPS'18	Adhiyamaan College of Engineering, Hosur	National
2.	V.V. Ramya	Best paper award	NCFCSPS'18	Adhiyamaan College of Engineering, Hosur	National
3.	A. Janaki	Best paper award	NCFCSPS'18	Adhiyamaan College of Engineering, Hosur	National
4.	S. Dhanya	Best paper award	NCFCSPS'18	Adhiyamaan College of Engineering, Hosur	National
5.	Adithyan.T.S	III	Roborace	Knowledge institute of technology, Salem.	National
6.	Bala Murugan.S	III	Roborace	Knowledge institute of technology, Salem.	National
7.	Manibarathi	I	Roborace	Knowledge institute of technology, Salem.	National
8.	Sarath Kumar.N	I	Roborace	Knowledge institute of technology, Salem.	National
9.	Dhanalakshmi.P	I	Paper presentation	Knowledge institute of technology,Salem.	National
10.	Akshatha.S.N	I	Paper presentation	Knowledge institute of technology,Salem.	National
11.	P.Suguna	Participated	Paper Presentation	Kongu Engineering college	National

12.	V.S.Sowmiya	Participated	Paper Presentation	Kongunadu college of engineering & technology	National
13.	Shruthi	Participated	Paper Presentation	Kongunadu college of engineering & technology	National
14.	Shrin Sahana	Participated	Paper Presentation	Kongunadu college of engineering & technology	National
15.	Kiran Aditya	B1	Cambridge English Language Assessment	Sona college of technology,Salem.	National
16.	Kalkeseetharaman P K	B1	Cambridge English Language Assessment	Sona college of technology,Salem.	National
17.	Karthick K	B1	Cambridge English Language Assessment	Sona college of technology,Salem.	National
18.	Swathi k	I	Paper Presentation	Karpagam College of technology	National
19.	Srinithi G	I	Paper Presentation	Karpagam College of technology	National
20.	Yogalakshmi R	Participated	National Symposium (Control and sensing for robotics)	National institute technology, Trichy	National

Year 2016-17

S. No	Name	Prize/ Participation	Title of the Event	Event place	Level
1.	A.Kowsalya	I	Multimedia Presentation	Excel College of engineering	National
2.	S.Sabarish	-	National Level Conference – Published Journal In IRJET	Mahendra college of engineering	National
3.	K.Shruthi	I	Technical Quiz	Muthayammal college of engineering	National
4.	R.Sindhuja	I	Technical Quiz	Muthayammal college of engineering	National
5.	R.Sindhuja	III	Paper presentation	Sri Krishna college of Engineering and technology	National
6.	R.Sriram	II	State level business plan competition – CII	Narasus Sarathy college of engineering	National
7.	M.Suba Priyadharsini	--	National level conference – published journal in IRJET	Mahendra college of engineering	National
8.	M.Suba Priyadharsini	II	State level business plan competition – CII	Narasus Sarathy college of engineering	National

9.	M.Sudha	--	National level conference – published journal in IRJET	Mahendra college of engineering	National
10.	D.Iswarya	III	Circuit Debugging	Sona college of technology	Institute
11.	S.Manjula	III	Circuit Debugging	Sona college of technology	Institute
12.	S.Priyanka (13.03.1996)	III	Multimedia presentation	Sona college of technology	Institute
13.	S.Ramya	III	Multimedia presentation	Sona college of technology	Institute
14.	A.Muhammed Husni	III	Paper presentation	Government college of engineering	National
15.	A.Muhammed Husni	II	QUIZ	Sona college of technology	Institute
16.	A.Muhammed Husni	II	QUIZ	Sona college of technology	Institute
17.	K.R. Muruganantham	II	Paper presentation	Adhiyaman College of engineering	National
18.	K. Jayanthi	II	Project Presentation	Al ameen College of engineering	National
19.	E.Elakkia	II	Project Presentation	Al ameen College of engineering	National
20.	N.Hemapriya	I	Paper presentation	Mahendra Institue of technology	National
21.	B. Harshitha	I	Paper presentation	Mahendra Institue of technology	National

22.	N.Hemapriya	II	Digitrix	Mahendra Institue of technology	National
23.	B. Harshitha	II	Digitrix	Mahendra Institue of technology	National
24.	P.Keerthana	I	Paper presentation	Hindustan college of technology	National
25.	D. B. Ramya	I	Paper presentation	Hindustan college of technology	National
26.	Y.Vidhya Lakshmi	III	Group Discussion	Sona college of technology	Institute
27.	S. N. Akshatha	II	Paper Presentation	Coimbatore institute of technology	National
28.	J. Geetha Priya	II	Paper Presentation	Sona college of technology	Institute
29.	S.Balamurugan	II	Multimedia	Kongu engineering college	National
30.	S.Balamurugan	III	Quiz	Kongu engineering college	National
31.	M.Jayavani	II	Paper presentation	Sona college of technology	Institute
32.	M.Jayavani	II	Idea Presentation	Sona college of technology	Institute
33.	B. Kaviya	II	Paper presentation	Kongu engineering college	National
34.	B. Kaviya	III	Quiz	Kongu engineering college	National

35.	S. Kowsalya	I	Poster presentation	Sona college of technology	Institute
36.	R. Kruthika	I	Poster presentation	Sona college of technology	Institute
37.	Priyanka . M	II	Quiz	Knowledge institute of technology, Salem.	National
38.	S. Muthunarayanan	I	Quiz	Sona college of technology	Institute
39.	J. Sai Pradeep	III	JAM	Sona college of technology	Institute
40.	J. Sai Pradeep	III	JAM	Sona college of technology	Institute
41.	J. Sai Pradeep	II	Quiz	Sona college of technology	Institute
42.	S. Roshini	II	JAM	Sona college of technology	Institute
43.	L.Siddik	II	Quiz	Sona college of technology	Institute
44.	L.Siddik	III	JAM (Pair Event)	Sona college of technology	Institute
45.	V.Surya	II	Multimedia	Kongu engineering college	National
46.	V.Surya	III	Quiz	Kongu engineering college	National

Year: 2015 -16

S. No	Name	Prize/ Participation	Title	Event venue	Level (In/S/N/I)
1.	C.Sai Venkata Vinay	I	Paper Presentation	ISTE - Salem	State
2.	C.Sai Venkata Vinay	I	Design Contest	CADD Centre	State
3.	Sundareswaran S	II	Design Contest	CADD Centre	State
4.	Sriram R	II	Design Contest	CADD Centre	State
5.	Suba priyadharsini M	II	Design Contest	CADD Centre	State
6.	Santhiya Sri M	II	Design Contest	CADD Centre	State
7.	Roshini M	II	Design Contest	CADD Centre	State
8.	Suvadhika P S	II	Design Contest	CADD Centre	National
9.	Sowndharya C	III	Design Contest	CADD Centre	National
10.	Sudha M	III	Design Contest	CADD Centre	National
11.	M. Anbarasu	Runner	Robo OCEANA	IIT, Madras	National
12.	S.Arun Prakash	Runner	Robo OCEANA	IIT, Madras	National
13.	A.A.A.Annal	Runner	Robo OCEANA	IIT, Madras	National
14.	Ashok kumar Jaganth Nivas	Runner	Robo OCEANA	IIT, Madras	National

Extra-curricular activities:

2017-18

S. No	Name	Prize/ Participation	Title	Event place	Level
1.	Adithyan.T.S	II	Short Film	Kongu engineering college	National
2.	Bala Murugan.S	II	Short Film	Kongu engineering college	National
3.	Hariharan.G	III	Weight Lifting	Anna University Zonal Tournament	National
4.	Haarne V	Runners	Badmiton	Anna University Zonal Tournament	State
5.	Murugesan M	Participated	Student MR.Salem 2017	Modern Gym	District
6.	Murugesan M	Participated	Junior MR.Salem	Modern gym	State

			2018		
7.	Gayathri K	Donated Blood	Voluntary blood donation service	Tamil Nadu State Blood Transfusion Council	State
8.	Sathish Kumar D	Winner	Division Level Boxing Championship	Iron Hand Boxing Club	State
9.	Sathish Kumar D	Participated	Division Boxing Tournament	Dhrona School of Martial Arts and SDAT	National
10.	Sowmika D K	Participated	National Symposium (Brain -O-Brain)	National institute of technology	National
11.	Soundharya Lakshmi N	Participated	National Symposium (Brain -O-Brain)	National institute of technology	National

2016-17

S. No	Name	Prize/ Participation	Title of the Event	Event place	Level
1.	S.Bhuvaneshwari	Participated	National Level Equipped Power lifting (Junior)	Kumaraguru college of technology	National
2.	S.Bhuvaneshwari	Silver Medal	Senior State Equipped Powerlifting	Kumaraguru college of technology	National

3.	S.Bhuvaneshwari	Silver Medal	Junior State Equipped Powerlifting	JJ College of engineering and technology	National
4.	S.Bhuvaneshwari	Silver Medal	Anna University Inter Zonal(Powerlifting)	Sasurie academy of engineering	State
5.	S.Bhuvaneshwari	Bronze Medal	Anna University Inter Zonal(Weightlifting)	Sasurie academy of engineering	State
6.	S.Bhuvaneshwari	Runner	Throw Ball	Sona college of technology	Institute
7.	S.Bhuvaneshwari	C-Certificate	NCC	Sona college of technology	National
8.	R.Sindhuja	I	Chess	Anna University Inter Zonal	State
9.	R.Sindhuja	I	Chess	Sona college of technology	Institute
10.	R.Sindhuja	II	Basket ball	Sona college of technology	Institute
11.	P.Keerthana	III	Drawing	Sona college of technology	Institute
12.	P.Keerthana	II	Drawing	Sona college of technology	Institute
13.	D. B. Ramya	I	Essay Writing	Sona college of technology	Institute
14.	Y.Vidhya Lakshmi	II	Speech Competition	Sona college of technology	Institute
15.	Y.Vidhya Lakshmi	III	Pecha Kucha	Sona college of technology	Institute
16.	Y.Vidhya Lakshmi	III	Group Discussion	Sona college of technology	Institute

17.	Y.Vidhya Lakshmi	I	Oratorical Competition	Sona college of technology	Institute
18.	T.Monisha	I	Dance	Sona college of technology	Institute
19.	T.Monisha	II	Group Dance	Sona college of technology	Institute
20.	K. Tharani	II	Group Dance	Sona college of technology	Institute
21.	R.Gowsika	II	Group Dance	Sona college of technology	Institute
22.	Sandya.A	II	Group Dance	Sona college of technology	Institute
23.	T.M.Shanmathi	B Certificate	NCC	Sona college of technology	Institute
24.	G.Hariharan	I	Weight Lifting	Gandhi Stadium	State
25.	J. Sai Pradeep	II	Speaking Event	Sona college of technology	Institute
26.	S. Roshini	I	Oration Competition	Sona college of technology	Institute

2015-16

S. No	Name	Prize/ Participation	Title	Event Venue	Level
1.	D.Karthikeyan	Participated	Karate	Sona college of technology	Institute
2.	M.Sudhakar	I	Karate	Gandhi Stadium	State

Conference/Journal Publication

S. No	Name of the Student	Title of the event	Conference /Journal	Paper of title
1.	D. Karthick	ICEAT-2018, Department of ECE, Sri Krishna College of Technology, Coimbatore	Conference	Blood Vessel Segmentation using image Processing Technique
2.	R. Dhamodharan	ICEAT-2018, Department of ECE, Sri Krishna College of Technology, Coimbatore	Conference	Blood Vessel Segmentation using image Processing Technique
3.	R. Dhanraj	ICEAT-2018, Department of ECE, Sri Krishna College of Technology, Coimbatore	Conference	Blood Vessel Segmentation using image Processing Technique
4.	P. Ajithkumar	ICEAT-2018, Department of ECE, Sri Krishna College of Technology, Coimbatore	Conference	Blood Vessel Segmentation using image Processing Technique
5.	S. Aishwarya	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Recognition and classification of Hand Written Tamil Character from palm leaves Manuscripts
6.	R. Aiswarya Harini	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Recognition and classification of Hand Written Tamil Character from palm

				leaves Manuscripts
7.	G. Devimeenakshi	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Recognition and classification of Hand Written Tamil Character from palm leaves Manuscripts
8.	P. Elakkia	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Recognition and classification of Hand Written Tamil Character from palm leaves Manuscripts
9.	P.S. Anjusree	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Advance fire detection in Video using Image Processing
10.	K. Archana	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Advance fire detection in Video using Image Processing
11.	C. Devini	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Advance fire detection in Video using Image Processing
12.	S. Divya Bharathy	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Advance fire detection in Video using Image

				Processing
13.	R. Sri Sathya	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Segmentation, feature extraction & classification of brain tumour through MRI Images
14.	M. Bharani	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Segmentation, feature extraction & classification of brain tumour through MRI Images
15.	S. Chinthamani	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Segmentation, feature extraction & classification of brain tumour through MRI Images
16.	E. Banumathi	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Segmentation, feature extraction & classification of brain tumour through MRI Images
17.	K. Gowrishankaran	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Garbage Collection and Classification Robot using YOLO Architecture

18.	Y. Farhaan Sheriff	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Garbage Collection and Classification Robot using YOLO Architecture
19.	R. Hari Deepak	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Garbage Collection and Classification Robot using YOLO Architecture
20.	Mazin	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Garbage Collection and Classification Robot using YOLO Architecture
21.	G. Aaradhana	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Energy Efficiency in wireless sensor networks using Advance Leach Protocol
22.	S. Deepika	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Energy Efficiency in wireless sensor networks using Advance Leach Protocol
23.	B. Harshitha	NCSICVN'18, Department of ECE,	Conference	Energy Efficiency in

		Sona College of Technology, Salem		wireless sensor networks using Advance Leach Protocol
24.	N. Hemapriya	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Energy Efficiency in wireless sensor networks using Advance Leach Protocol
25.	K. Jayanthi	NCFCSPS'18, Adhiyamaan College of Engineering, Hosur	Conference "Best Paper award"	Wireless Health Mentoring System
26.	V.V. Ramya	NCFCSPS'18, Adhiyamaan College of Engineering, Hosur	Conference "Best Paper award"	Wireless Health Mentoring System
27.	A. Janaki	NCFCSPS'18, Adhiyamaan College of Engineering, Hosur	Conference "Best Paper award"	Wireless Health Mentoring System
28.	S. Dhanya	NCFCSPS'18, Adhiyamaan College of Engineering, Hosur	Conference "Best Paper award"	Wireless Health Mentoring System
29.	Akanchakumari	ICLTSET'18, Karpagam Institute Technology, Coimbatore	Conference	Real time GSM based skid cooling LPG Pipeline Monitoring System
30.	S. Ashwini	ICLTSET'18, Karpagam Institute Technology, Coimbatore	Conference	Real time GSM based skid cooling LPG Pipeline Monitoring System

31.	G. Dharshana	ICLTSET'18, Karpagam Institute Technology, Coimbatore	Conference	Real time GSM based skid cooling LPG Pipeline Monitoring System
32.	E. Elakiya	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Deep sea fisherman patrol system using Arduino
33.	P. Ezhilarasi	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Deep sea fisherman patrol system using Arduino
34.	R. Gomathi Sri	NCSICVN'18, Department of ECE, Sona College of Technology, Salem	Conference	Deep sea fisherman patrol system using Arduino
35.	V. Aravind Kumar	IRJET	Journal	Environment based irrigation system using wireless technologies
36.	B. Balaji	IRJET	Journal	Environment based irrigation system using wireless technologies
37.	S. Hariprakash	IRJET	Journal	Environment based irrigation system using wireless technologies

38.	S. Satheesh	IRJET	Journal	Environment based irrigation system using wireless technologies
39.	B. Devasenathipathi	ICRTECTITA-2018, PSNA College of Engineering and Technology, Salem	Journal	Implementation of Efficient Vending Machine
40.	J. Abishek	ICRTECTITA-2018, PSNA College of Engineering and Technology, Salem	Journal	Implementation of Efficient Vending Machine
41.	N. Mohammed Riyas	ICRTECTITA-2018, PSNA College of Engineering and Technology, Salem	Journal	Implementation of Efficient Vending Machine
42.	S. Gokul (1996)	ICRTECTITA-2018, PSNA College of Engineering and Technology, Salem	Journal	Implementation of Efficient Vending Machine
43.	D.K. Balajee	ESCON-18, Department of ECE, Selvam College of Technology,Namakkal	Conference	Library automation using RFID Tag
44.	R. Dhinesh	ESCON-18, Department of ECE, Selvam College of Technology,Namakkal	Conference	Library automation using RFID Tag
45.	S. Gokul (1997)	ESCON-18, Department of ECE, Selvam College of Technology,Namakkal	Conference	Library automation using RFID Tag
46.	G. Hariprasath	ESCON-18, Department of ECE,	Conference	Library automation

		Selvam College of Technology,Namakkal		using RFID Tag
47.	K.R. Muruganantham	ESCON-18, Department of ECE, Selvam College of Technology,Namakkal	Conference	Library automation using RFID Tag
48.	Moulidharan R	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Smart Notice Board using Raspberry PI and NODE-RED
49.	Muthu S	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Smart Notice Board using Raspberry PI and NODE-RED
50.	Manikandan K	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Smart Notice Board using Raspberry PI and NODE-RED
51.	Lingesh Vijay S R	National conference in signal and Image Processing, Communication, VLSI design & Nano	Conference	Smart Notice Board using Raspberry PI and NODE-RED

		Technology, Sona College of Technology, Salem.		
52.	Kowsalya S	International Journal of advanced Research in Electrical Electronics and Instrumentation Engineering	Journal	Density Based Smart Lighting System using IOT
53.	Lavanya A	International Journal of advanced Research in Electrical Electronics and Instrumentation Engineering	Journal	Density Based Smart Lighting System using IOT
54.	Monisha R	International Journal of advanced Research in Electrical Electronics and Instrumentation Engineering	Journal	Density Based Smart Lighting System using IOT
55.	G.Lakshmi Priya	International Journal of advanced Research in Electrical Electronics and Instrumentation Engineering	Journal	Density Based Smart Lighting System using IOT
56.	Karthigaipriya R	International Journal of advanced Research in Electrical Electronics and Instrumentation Engineering	Journal	Adaptive Equalization of Lorentz System & Its Application in Cryptography
57.	Kavitha B	International Journal	Journal	Adaptive

		of advanced Research in Electrical Electronics and Instrumentation Engineering		Equalization of Lorentz System & Its Application in Cryptography
58.	Manjula V	International Journal of advanced Research in Electrical Electronics and Instrumentation Engineering	Journal	Adaptive Equalization of Lorentz System & Its Application in Cryptography
59.	Meena P	International Journal of advanced Research in Electrical Electronics and Instrumentation Engineering	Journal	Adaptive Equalization of Lorentz System & Its Application in Cryptography
60.	Nithish M S	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Face Recognition using Deep Learning
61.	Ram Prasaath J	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Face Recognition using Deep Learning
62.	Ramkumar A	National conference in signal and Image	Conference	Face Recognition

		Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.		using Deep Learning
63.	Lakshman S	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Face Recognition using Deep Learning
64.	Rajaganesh G	Convergent communication technologies, telemedicine Networking & Renewable Resources, Vinayaka Mission research Foundation, Salem.	Conference	Digital Image Enhancement using SVD-DWT Techniques.
65.	Manikandan M K	Convergent communication technologies, telemedicine Networking & Renewable Resources, Vinayaka Mission research Foundation, Salem.	Conference	Digital Image Enhancement using SVD-DWT Techniques.
66.	Nateshraja B	Convergent communication technologies,	Conference	Digital Image Enhancement using SVD-DWT

		telemedicine Networking & Renewable Resources, Vinayaka Mission research Foundation, Salem.		Techniques.
67.	Palanisamy G	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Hyperspectral Image Classification using SVM
68.	Muralikrishnan N	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Hyperspectral Image Classification using SVM
69.	Kiruthik Pranav S K	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Hyperspectral Image Classification using SVM
70.	Preetha M	International Journal of advanced Research in Electrical Electronics and	Journal	Image Enhancement of Microstructural Images.

		Instrumentation Engineering		
71.	Priya S	International Journal of advanced Research in Electrical Electronics and Instrumentation Engineering	Journal	Image Enhancement of Microstructural Images.
72.	Ramya S	International Journal of advanced Research in Electrical Electronics and Instrumentation Engineering	Journal	Image Enhancement of Microstructural Images.
73.	P.Thenaruvi	International Journal of advanced Research in Electrical Electronics and Instrumentation Engineering	Journal	Image Enhancement of Microstructural Images.
74.	Keerthana P	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Extraction of Human Features from Closed Circuit Television Video Footage for Investigation
75.	Kokila P	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of	Conference	Extraction of Human Features from Closed Circuit Television Video Footage for Investigation

		Technology, Salem.		
76.	Ramya D B	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Extraction of Human Features from Closed Circuit Television Video Footage for Investigation
77.	Leela Devi V	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Extraction of Human Features from Closed Circuit Television Video Footage for Investigation
78.	Naveen Raj R	Convergent communication technologies, telemedicine Networking & Renewable Resources, Vinayaka Mission research Foundation, Salem.	Conference	IOT and Finger Print Based Patient Report
79.	SA.Gurunarayanan	Convergent communication technologies, telemedicine Networking & Renewable Resources, Vinayaka Mission research Foundation, Salem.	Conference	IOT and Finger Print Based Patient Report

80.	Mustaffa	Convergent communication technologies, telemedicine Networking & Renewable Resources, Vinayaka Mission research Foundation, Salem.	Conference	IOT and Finger Print Based Patient Report
81.	Soundarya Meenatchi	ARPN Journal of Engineering and Applied Sciences	Journal	Auto Irrigation System using Soil Moisture Sensor
82.	Pavithra N	ARPN Journal of Engineering and Applied Sciences	Journal	Auto Irrigation System using Soil Moisture Sensor
83.	Priyanka C	ARPN Journal of Engineering and Applied Sciences	Journal	Auto Irrigation System using Soil Moisture Sensor
84.	S.Sunmathy	ARPN Journal of Engineering and Applied Sciences	Journal	Auto Irrigation System using Soil Moisture Sensor
85.	Kaviya P	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Women's Safety Device using GSM & GPS and Shock Generation Circuit
86.	Priya O	National conference in signal and Image	Conference	Implementation of Analytics for

		Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.		APIS
87.	Keerthana S	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Women's Safety Device using GSM & GPS and Shock Generation Circuit
88.	Nishanth S	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Camera Stabilization over Vertical Axis using Laser as Reference Point
89.	Muthukumaran M	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	Camera Stabilization over Vertical Axis using Laser as Reference Point
90.	Ragul M	National conference in signal and Image Processing, Communication, VLSI design & Nano	Conference	ATM Transaction Using Fingerprint Recognition And Aadhar Card

		Technology, Sona College of Technology, Salem.		
91.	Karthikraja S	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	ATM Transaction Using Fingerprint Recognition And Aadhar Card
92.	Karthick Velan P	National conference in signal and Image Processing, Communication, VLSI design & Nano Technology, Sona College of Technology, Salem.	Conference	ATM Transaction Using Fingerprint Recognition And Aadhar Card
93.	A.Sandhiya	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Fire Fighting Robot
94.	S.Prithiya	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Fire Fighting Robot
95.	K.Tharani	Second International Conference on Innovations In Engineering	Conference	Fire Fighting Robot

		,Technology and Science		
96.	Z.Saramma	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Removal of Noise in ECG Signal
97.	B.Sharmilaa	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Removal of Noise in ECG Signal
98.	S.Sneha	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Removal of Noise in ECG Signal
99.	R.Sowmiya	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Removal of Noise in ECG Signal
100.	P.Srinithi	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	A Novel Paradigm of Blind Indoor Navigation System Using Li-Fi Technology
101.	V.Suchitra	National conference on emerging trends	Conference	A Novel Paradigm of

		in Signal and Image Processing, Communication, VLSI and Nanotechnology		Blind Indoor Navigation System Using Li-Fi Technology
102.	M.Thaarani	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	A Novel Paradigm of Blind Indoor Navigation System Using Li-Fi Technology
103.	R.M.Valliammai	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	A Novel Paradigm of Blind Indoor Navigation System Using Li-Fi Technology
104.	D.Ravindhiran	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Data Acquisition System for Environmental Monitoring
105.	R.Santhosh kumar	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Data Acquisition System for Environmental Monitoring
106.	R.Thamil bharathi	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Data Acquisition System for Environmental Monitoring

107.	A.Thomas	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Data Acquisition System for Environmental Monitoring
108.	M.Santhoshkumar	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Estimating Power Releases from Corona Discharges using Dip Technique
109.	L.Sathish kumar	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Estimating Power Releases from Corona Discharges using Dip Technique
110.	R.Shailash	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Estimating Power Releases from Corona Discharges using Dip Technique
111.	P.Renuga Devi	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Smart Vehicle Tracking & Monitoring System Using Arm
112.	T.M.Shanmathi	Second International Conference on Innovations In	Conference	Smart Vehicle Tracking & Monitoring

		Engineering ,Technology and Science		System Using Arm
113.	S.Sathya Rupini	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Smart Vehicle Tracking & Monitoring System Using Arm
114.	N.Shanmuga Priya	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Image Enhancement Using PSO for Video Based Image Analysis
115.	A.Shilpa	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Image Enhancement Using PSO for Video Based Image Analysis
116.	S.Santhiya	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Automatic Detection of Entry in to A Restricted Area Using IOT
117.	G.Subhashini	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Automatic Detection of Entry in to A Restricted Area Using IOT
118.	Y.Vidhya lakshmi	Second International Conference on	Conference	Automatic Detection of

		Innovations In Engineering ,Technology and Science		Entry in to A Restricted Area Using IOT
119.	G.Ramya	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Automatic Detection of Entry in to A Restricted Area Using IOT
120.	S.Shriram	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Automatic Detection of Entry Into A Restricted Area using - IOT
121.	A.Victor Imanuel	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Automatic Detection of Entry Into A Restricted Area using - IOT
122.	S.Santhosh	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Automatic Detection of Entry Into A Restricted Area using - IOT
123.	R.Sounder	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	CNC Writing Machine using Arduino
124.	P.Sujeeth kumar	National conference	Conference	CNC Writing

		on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology		Machine using Arduino
125.	T.Surya Prakash	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	CNC Writing Machine using Arduino
126.	S.Sabitha	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Automatic Speed Control According to Speed Limits and GPS Tracking for Accidental Monitoring of Vehicle
127.	R.Sathiya Lakshmi	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Automatic Speed Control According to Speed Limits and GPS Tracking for Accidental Monitoring of Vehicle
128.	S.Sindhuja	Second International Conference on Innovations In Engineering	Conference	Automatic Speed Control According to Speed Limits

		,Technology and Science		and GPS Tracking for Accidental Monitoring of Vehicle
129.	A.Swetha	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Automatic Speed Control According to Speed Limits and GPS Tracking for Accidental Monitoring of Vehicle
130.	V.Sivakamasundari	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Android Based Robotic Control for Surveillance Application
131.	S.Soniya	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Android Based Robotic Control for Surveillance Application
132.	S.Sowmhiyaa	National conference on emerging trends in Signal and Image Processing, Communication, VLSI and Nanotechnology	Conference	Android Based Robotic Control for Surveillance Application
133.	A.Sivaraman	Second International	Conference	Design and

		Conference on Innovations In Engineering ,Technology and Science		Implementation of Smart Energy Meter using IOT
134.	A.SulthanaParveen	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Design and Implementation of Smart Energy Meter using IOT
135.	S.Vanmathi	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Design and Implementation of Smart Energy Meter using IOT
136.	A.Elangovan	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Design and Implementation of Smart Energy Meter using IOT
137.	R.Gowsika	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Reliable Data Collection using WSN on MASP
138.	T.Monisha	Second International Conference on Innovations In Engineering ,Technology and Science	Conference	Reliable Data Collection using WSN on MASP

139.	Adharsh	Smart Zoning strategies for Hand written Tamil Characters in Palm Leaf Manuscripts	Journal	ICBIP 2017 Proceedings of the 2nd International Conference on Biomedical Signal and Image Processing Pages 18-21
140.	Gokul	Smart Zoning strategies for Hand written Tamil Characters in Palm Leaf Manuscripts	Journal	ICBIP 2017 Proceedings of the 2nd International Conference on Biomedical Signal and Image Processing Pages 18-21

2015-16

Individual Student Achievement: J. Nishanth (2013 – 17 Batch)

- Mr.J. Nishanth 2017 passed out has won Accenture Innovation Jockey – Grand Winner, Conducted by Accenture,Bangalore.got an opportunity to visit Silicon Valley, USA

Students have developed prototype for several projects with the support of faculty members:

1. Long Range Wireless Mic
2. Security Alert System
3. Accident Announcement System
4. Accident Control System
5. Automatic head light dimmer
6. Multiple over head system automation

7. Solar DC to DC Power systems
8. Brightness based light adaptive system

CRITERION 5

FACULTY INFORMATION AND CONTRIBUTIONS

CRITERION 5	Faculty Information and Contributions	200

2017-18

S.No	Name of the Faculty Members	Qualification			Association with institution	Designation	Date of Joining the institution	Department	Specialization	Academic Research			Sponsored Research (Funded Research)	Consultancy and Product Development
		Degree (highest degree)	University	Year of Graduation						Research Paper Publication	Ph.D Guidance	Faculty Receiving Ph.D During the Assessment		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Dr. R.S. Sabeenian	Ph.D	Anna	2009	15.6 y	Prof	23.12.2002	ECE	DIP	13	10	03	04	02
2.	Dr. R. Vinod Kumar	Ph.D	Anna	2015	12.3 y	Prof	20.03.2006	ECE	WN	--	--	--	--	--
3.	Dr.M.Dhanasu	Ph.D	Anna	2016	1 m	Prof	28.5.2018	ECE	ES	3	-	-	-	-
4.	Dr. K.R. Kavitha	Ph.D	Anna	2014	12 y	Prof	07.06.2006	ECE	NE	02	--	--	--	--
5.	Prof. J.P. Senthil	M.E	Anna	2007	11 y	ASP	20.06.2007	ECE	CS	01	--	--	--	--

	Kumar													
6.	Prof .S. Deepa	M.E	Annamalai	2004	12 y	ASP	01.06.2006	ECE	PC & I	--	--	--	--	--
7.	Dr. N. Sasirekha	Ph.D	Anna	2016	10.11 y	ASP	16.07.2007	ECE	IP	--	--	--	--	--
8.	Dr. K. Anguraj	Ph.D	Anna	2015	12.9 y	ASP	14.09.2005	ECE	MIP	--	--	--	--	--
9.	Dr. G. Ravi	Ph.D	Anna	2016	10.5 y	ASP	07.01.2008	ECE	WN	03	03	--	--	--
10.	Dr. B.	Ph.D	Anna	2014	11 y	ASP	20.06.2007	EEE	DIP	--	--	--	--	--
11.	Prof. M. Jamuna Rani	M.E	Anna	2005	10.5 y	AP (Sr.G)	08.01.2008	ECE	AE	--	--	--	--	--
12.	Prof. T. Shanthi	M.E	Anna	2008	16 y	AP (Sr.G)	19.06.2002	ECE	CS	01	--	--	--	--
13.	Dr . S. Jayapoorani	Ph.D	Anna	2013	11.10 y	AP	21.08.2006	ECE	NE	--	--	--	01	01
14.	Prof. T. Prema Kumari	M.E	Anna	2009	12.3 y	AP	20.03.2006	ECE	VLSI	03	--	--	--	--
15.	Prof. M. Senthil Vadivu	M.E	Anna	2007	10.11 y	AP	11.07.2007	ECE	CS	--	--	--	--	--

16.	Dr. M.E. Paramasivam	Ph.D	Anna	2018	10.11 y	AP	02.07.2007	ECE	VLSI	01	--	--	--	--
17.	Prof. S. Sree Southry	M.E	Anna	2008	9.11 y	AP	04.07.2008	ECE	CS	--	--	--	--	04
18.	Prof. M. Susaritha	M.E	Anna	2009	8.11 y	AP	20.07.2009	ECE	VLSI	--	--	--	--	--
19.	Prof. N.S. Yoganathan	M.E	Anna	2008	9.11 y	AP	16.07.2008	ECE	VLSI	--	--	--	--	--
20.	Prof. A. P. Jaya Krishna	M.E	Anna	2009	8.10 y	AP	07.08.2009	EEE	VLSI	--	--	--	01	--
21.	Prof. A. Ayub Khan	M.E	Anna	2010	7.11 y	AP	01.07.2010	ECE	AE	--	--	--	--	04
22.	Prof. K. Manju	M.E	Anna	2007	10.10	AP	16.08.2007	ECE	CS	--	--	--	--	--
23.	Dr. S. Vijaya Lakshmi	Ph.D	Anna	2017	10.5 y	AP	02.01.2008	ECE	CS	--	--	--	--	--
24.	Prof. P.M. Dinesh	M.E	Anna	2011	7 y	AP	20.06.2011	ECE	VLSI	--	--	--	04	01
25.	Prof. D.P. Sangeetha	M.E	Anna	2012	10.11y	AP	09.07.2007	ECE	AE	--	--	--	--	--
26.	Prof. P. Priya	M.E	Anna	2009	4.11y	AP	08.07.2013	ECE	CS	--	--	--	--	--

27.	Prof. A. Sangeetha	M.E	Anna	2009	4.11y	AP	08.07.2013	ECE	CS	--	--	--	--	--
28.	Prof. V. Geetha Lakshmi	M.E	Hindustan	2013	4.11y	AP	10.07.2013	ECE	VLSI	--	--	--	--	--
29.	Prof. S. Vijayashaarathi	M.E	Anna	2012	4.9y	AP	12.09.2013	ECE	CS	--	--	--	--	--
30.	Mr. P. Vivek Karthick	M.E	Anna	2013	1 y	AP	01.06.2017	ECE	VLSI	01	--	--	--	--
31.	Mr. Eldho Paul	M.E	Anna	2016	1 y	AP	01.06.2017	ECE	CS	--	--	--	--	--
32.	Ms. M. Amutha	M.E	Anna	2009	13	AP	17.06.2005	ECE	CC	--	--	--	--	--
33.	Mr. R. Anand	M.E	Amritha	2017	1 y	AP	28.06.2017	ECE	CE & SP	--	--	--	--	--
34.	Prof. R. Gayathri	M.E	Anna	2009	1 y	AP	01.06.2017	ECE	CS	--	--	--	--	--
	PG – (VLSI)													
35.	Prof. J. Harirajkumar	M.Tech	Sastra	2006	11.6y	ASP	15.12.2006	ECE	VLSI	--	--	--	--	--
36.	Prof. V. Meenakshi	M.E	Anna	2010	7.10 y	AP	05.08.2010	ECE	VLSI	--	--	--	--	--

37.	Prof.K.Saranya	M.E	Anna	2016	2 y	AP	08.7.2016	ECE	VLSI	--	--	--	-	--

	PG – (CS)													
38.	Dr.Vasumathi	Ph. D	NIT	2014	1 y	ASP	08.06.201	ECE	VLSI	--	--	--	--	--
39.	Prof. A.B. Ahadit	M.Tech	Calicut	2015	2 y	AP	13.06.201	ECE	EDT	--	--	--	--	--
40.	Mr. S. Ram Kumar	M.E	Anna	2014	11 Months	AP	21.07.2017	ECE	AE	--	--	--	--	--

	Adhoc Faculty													
1.	Mr.M.Shanthakumar	M.E	St.Peters	2011	-	Adhoc	10.7.2017	ECE	AE	1	--	--	--	--
2.	Mrs.S.Ponlatha	M.E	Anna	2008	-	Adhoc	05.7.2017	ECE	CS	3	--	--	--	--

***The Adhoc faculties are not considered for SFR calculation 5.1**

2016-17

S.No	Name of the Faculty Members	Qualification			Association with	Designation	Date of Joining the Institution	Department	Specialization	Academic Research			Sponsored Research (Funded Research)	Consultancy and Product Development
		Degree (highest degree)	University	Year of Graduation						Research Paper Publication	Ph.D Guidance	Faculty Receiving Ph.D during the Assessment Years		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Dr. K.R. Kashwan	Ph.D	Tezpur	2007	11.7	Prof	17.11.2005	ECE	EC	03	12	2	--	--
2.	Dr. R.S. Sabeenian	Ph.D	Anna	2009	14.6	Prof	23.12.2002	ECE	DIP	12	12	--	03	02
3.	Dr. R. Vinod Kumar	Ph.D	Anna	2015	11.3	Prof	20.03.2006	ECE	WN	--	--	--	--	--
4.	Prof. J.P. Senthil Kumar	M.E	Anna	2007	10	ASP	20.06.2007	ECE	CS	01	--	--	--	--
5.	Dr. K.R. Kavitha	Ph.D	Anna	2014	11	ASP	07.06.2006	ECE	NE	02	--	--	--	--
6.	Prof .S. Deepa	M.E	Anna	2004	11	ASP	01.06.2006	ECE	PC &	--	--	--	--	--

			malai						I					
7.	Dr. N. Sasirekha	Ph.D	Anna	2016	9.11	ASP	16.07.2007	ECE	IP	--	--	--	--	--
8.	Prof. M. Jamuna Rani	M.E	Anna	2005	9.5	AP(Sr.G)	08.01.2008	ECE	AE	--	--	--	--	--
9.	Prof. T. Shanthi	M.E	Anna	2008	15	AP(Sr.G)	19.06.2002	ECE	CS	01	--	--	--	--
10.	Dr. K. Anguraj	Ph.D	Anna	2015	11.9	AP(Sr.G)	14.09.2005	ECE	MIP	--	--	--	--	--
11.	Dr . S. Jayapoorani	Ph.D	Anna	2013	10.10	AP	21.08.2006	ECE	NE	--	--	--	01	01
12.	Dr. G. Ravi	Ph.D	Anna	2016	9.5	AP	07.01.2008	ECE	WN	03	03	--	--	--
13.	Prof. T. Prema Kumari	M.E	Anna	2009	11.3	AP	20.03.2006	ECE	VLSI	03	--	--	--	--
14.	Dr. B. Thiyaneswaran	Ph.D	Anna	2014	10	AP	20.06.2007	EEE	DIP	--	--	--	--	--
15.	Prof. M. Senthil Vadivu	M.E	Anna	2007	9.11	AP	11.07.2007	ECE	CS	--	--	--	--	--
16.	Prof. M.E. Paramasivam	M.E	Anna	2010	9.11	AP	02.07.2007	ECE	VLSI	01	--	--	--	--

17.	Prof. S. Sree Southry	M.E	Anna	2008	8.11	AP	04.07.2008	ECE	CS	--	--	--	--	04
18.	Prof. M. Susaritha	M.E	Anna	2009	7.11	AP	20.07.2009	ECE	VLSI	--	--	--	--	--
19.	Prof. N.S. Yoganathan	M.E	Anna	2008	8.11	AP	16.07.2008	ECE	VLSI	--	--	--	--	--
20.	Prof. A. P. Jaya Krishna	M.E	Anna	2009	7.10	AP	07.08.2009	EEE	VLSI	--	--	--	01	--
21.	Prof. A. Ayub Khan	M.E	Anna	2010	6.11	AP	01.07.2010	ECE	AE	--	--	--	--	04
22.	Prof. K. Manju	M.E	Anna	2007	9.10	AP	16.08.2007	ECE	CS	--	--	--	--	--
23.	Prof. S. Vijaya Lakshmi	M.E	Anna	2008	9.5	AP	02.01.2008	ECE	CS	--	--	--	--	--
24.	Prof. P.M. Dinesh	M.E	Anna	2011	6	AP	20.06.2011	ECE	VLSI	--	--	--	04	01
25.	Prof. D.P. Sangeetha	M.E	Anna	2012	9.11	AP	09.07.2007	ECE	AE	--	--	--	--	--
26.	Prof. P. Priya	M.E	Anna	2009	3.11	AP	08.07.2013	ECE	CS	--	--	--	--	--
27.	Prof. A. Sangeetha	M.E	Anna	2009	3.11	AP	08.07.2013	ECE	CS	--	--	--	--	--
28.	Prof. V. Geetha Lakshmi	M.E	Hindustan	2013	3.11	AP	10.07.2013	ECE	VLSI	--	--	--	--	--

29.	Prof M.Amutha	M.E	Anna	2009	13	AP	17.06.2005	ECE	CC	--	--	--	--	--

	PG – (VLSI)													
30	Dr.D.Jayanthi	Ph. D	Anna	2013	11.10	ASP	17.08.2005	ECE	VLSI	--	--	--	--	--
31	Prof. J. Harirajkumar	M.Tech	Sastra	2006	10.6	ASP	15.12.2006	ECE	VLSI	--	--	--	--	--
32	Prof. V. Meenakshi	M.E	Anna	2010	6.10	AP	05.08.2010	ECE	VLSI	--	--	--	--	--
	PG – (CS)													
33	Prof.S.Imaculate Rosaline	M.E	Anna	2013	1 y	AP	15.06.2016	ECE	CS	--	--	--	--	--
34	Prof. S. Vijayashaarathi	M.E	Anna	2012	3.9	AP	12.09.2013	ECE	CS	--	--	--	--	--

35	Prof. A.B. Ahadit	M.Tech	Calicut	2015	1 y	AP	13.06.2016	ECE	EDT	--	--	--	--	--

	Adhoc Faculty *													
1.	Ms.K.Saranya	M.E	Anna	2016	-	Adhoc Facuty	08.7.2016	ECE	VLSI	--	--	--	-	--
2.	Mr.K.Kandiban	M.E	Anna	2012	1.1y	Adhoc	01.7.2015	ECE	PED	--	--	--	-	--

***The Adhoc faculties are not considered for SFR calculation 5.1**

2015 – 16

S.No	Name of the Faculty Members	Qualification			Association with Institution	Designation	Date of Joining the Institution	Department	Specialization	Academic Research			Sponsor	Consultancy
		Degree (highest degree)	University	Year of Graduation						Research Paper Publication	Ph.D Guidance	Faculty Receiving Ph.D during the Assessment		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Dr. B. Gopi	Ph.D	Anna	2014	18	Prof	10.06.1998	ECE	NE	--	--	--	--	--
2.	Dr. R.S. Sabeenian	Ph.D	Anna	2009	13.6	Prof	23.12.2002	ECE	DIP	03	12	--	02	02
3.	Dr. R. Vinod Kumar	Ph.D	Anna	2015	10.3	Prof	20.03.2006	ECE	WN	--	--	--	--	--
4.	Prof. J.P. Senthil Kumar	M.E	Anna	2007	9	ASP	20.06.2007	ECE	CS	01	--	--	--	--

5.	Dr. K.R. Kavitha	Ph.D	Anna	2014	10	ASP	07.06.2006	ECE	NE	--	--	--	--	--
6.	Prof. S. Deepa	M.E	Anna malai	2004	10	ASP	01.06.2006	ECE	PC &	--	--	--	--	--
7.	Prof. T. Shanthi	M.E	Anna	2008	15	AP (Sr.G)	19.06.2002	ECE	CS	--	--	--	--	--
8.	Prof. M. Jamuna Rani	M.E	Anna	2005	8.5	AP (Sr.G)	08.01.2008	ECE	AE	--	--	--	--	--
9.	Dr. K. Anguraj	Ph.D	Anna	2015	10.9	AP (Sr.G)	14.09.2005	ECE	MIP	--	--	--	--	--
10.	Prof. T. Prema Kumari	M.E	Anna	2009	10.3	AP	20.03.2006	ECE	VLSI	--	--	--	--	--
11.	Dr. B. Thiyaneswaran	Ph.D	Anna	2014	9	AP	20.06.2007	EEE	DIP	--	--	--	--	--
12.	Prof. M. Senthil Vadivu	M.E	Anna	2007	8.11	AP	11.07.2007	ECE	CS	--	--	--	--	--
13.	Prof. M.E. Paramasivam	M.E	Anna	2010	8.11	AP	02.07.2007	ECE	VLSI	01	--	--	--	--
14.	Prof. S. Sree Southry	M.E	Anna	2008	7.11	AP	04.07.2008	ECE	CS	--	--	--	--	--
15.	Prof. N.S. Yoganathan	M.E	Anna	2008	7.11	AP	16.07.2008	ECE	VLSI	--	--	--	--	--
16.	Prof. A. P. Jaya Krishna	M.E	Anna	2009	6.10	AP	07.08.2009	EEE	VLSI	--	--	--	--	--
17.	Prof. A. Ayub Khan	M.E	Anna	2010	5.11	AP	01.07.2010	ECE	AE	--	--	--	--	--

18.	Prof. K. Manju	M.E	Anna	2007	8.10	AP	04.01.2011	ECE	CS	--	--	--	--	--
19.	Prof. S. Vijaya Lakshmi	M.E	Anna	2008	8.5	AP	02.01.2008	ECE	CS	02	--	--	--	--
20.	Prof. P.M. Dinesh	M.E	Anna	2011	5	AP	20.06.2011	ECE	VLSI	--	--	--	--	--
21.	Prof. D.P. Sangeetha	M.E	Anna	2012	8.11	AP	09.07.2007	ECE	AE	--	--	--	--	--
22.	Prof. P. Priya	M.E	Anna	2009		AP	08.07.2013	ECE	CS	--	--	--	--	--
23.	Prof. A. Sangeetha	M.E	Anna	2009	2.11	AP	8.07.2013	ECE	CS	--	--	--	--	--
24.	Prof. V. Geetha Lakshmi	M.E	Hindu stan	2013	2.11	AP	10.07.2013	ECE	VLSI	--	--	--	--	--
	PG (VLSI Design)													
25.	Dr. K.R. Kashwan	Ph.D	Tezpur	2007	10.7	Prof	17.11.2005	ECE	EC	20	12	05	--	--
26.	Dr.D.Jayanthi	Ph. D	Anna	2013	10.10	ASP	17.08.2005	ECE	VLSI	--	--	--	--	--
27.	Prof. J. Harirajkumar	M.Tech	Sastra	2006	9.6	ASP	15.12.2006	ECE	VLSI	--	--	--	--	--

28.	Prof. M. Susaritha	M.E	Anna	2009	6.11	AP	20.07.2009	ECE	VLSI	--	--	--	--	--
29.	Prof. V. Meenakshi	M.E	Anna	2010	5.10	AP	05.08.2010	ECE	VLSI	--	--	--	--	--
	PG (CS)													
30.	Prof. N. Sasirekha	M.E	Anna	2007	8.11	ASP	16.07.2007	ECE	CS	03	--	--	--	--
31.	Dr . S. Jayapoorani	Ph.D	Anna	2013	9.10	AP	21.08.2006	ECE	NE	--	--	--	--	--
32.	Dr. G. Ravi	Ph.D	Anna	2016	8.5	AP	07.01.2008	ECE	WN	01	--	--	--	--
33.	Prof. S.Vijayashaarathi	M.E	Anna	2012	2.9	AP	12.09.2013	ECE	CS	--	--	--	--	--
	Adhoc Faculty*													
1.	Mr.K.Kandiban	M.E	Anna	2012	-	Adho	01.7.2015	ECE	PED	--	--	--	-	--

***The Adhoc faculties are not considered for SFR calculation 5.1**

Note: *Please provide details for the faculty of the department, cumulative information for all the shifts for all academic years starting from current year in above format in Annexure - II.*

Table B.5

5.1 Student-Faculty Ratio (SFR) (20)

(To be calculated at Department Level)

No. of UG Programs in the Department (n) : 1

No. of PG Programs in the Department (m) : 2

No. of Students in UG 2nd Year : **u1**

No. of Students in UG 3rd Year : **u2**

No. of Students in UG 4th Year : **u3**

No. of Students in PG 1st Year : **p1**

No. of Students in PG 2nd Year : **p2**

Year	CAY 17-18	CAY 16-17	CAY m1 15-16
u1.1	206	212	145
u1.2	212	145	145
u1.3	145	145	143
UG1	**563**	**502**	**433**
p1.1	30	30	30
p1.2	30	30	30
PG1	**60**	**60**	**60**
P2.1	18	18	18
P2.2	18	18	18
PG2	**36**	**36**	**36**
Total No. of Students in the Department **(S)**	**S1=659**	**S1=598**	**S2=529**
No. of Faculty in th Department **(F)**	**F1=40+1 ***	**F2=35+1***	**F3=33**
Student Faculty Ratio (SFR)	**SFR1=S1/F1=16.(7**	**SFR2= S2/F2=16.61**	**SFR3= S3/F3=16.03**
Average SFR	**SFR=(SFR1+SFR2+SFR3)/3=16.24**		

∗1-Adjunct Faculty Dr.Simarjeet Saini

No. of Students = Sanctioned Intake + Actual admitted lateral entry students

(The above data to be provided considering all the UG and PG programs of the department)

Table B.5.1

S=*Number of Students in the Department = UG1+UG2+UG3+PG1+PG2*

F = *Total Number of Faculty Members in the Department (excluding first year faculty)*

Student Faculty Ratio (SFR) = S / F

Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1, and zero for average SFR higher than 25:1.

Marks distribution is given as below:

< = 15 - 20 Marks

< = 17 - 18 Marks

< = 19 - 16 Marks

< = 21 - 14 Marks

< = 23 - 12 Marks

<= 25- 10 Marks

> 25.0 - 0 Marks

Note: 75% should be Regular/ full time faculty and the remaining shall be Contractual Faculty/Adjunct Faculty/Resource persons from industry as per AICTE norms and standards.

The contractual faculty will be considered for assessment only if a faculty is drawing a salary as prescribed by the concerned State Government for the contractual faculty in the respective cadre.

5.2. Faculty Cadre Proportion (20)

The reference Faculty cadre proportion is 1(F1):2(F2):6(F3)

F1: Number of Profs required = 1/9 x Number of Faculty required to comply with 15:1 Student-Faculty ratio based on no. of students (N) as per 5.1

F2: Number of Associate Profs required = 2/9 x Number of Faculty required to comply with 15:1 Student-Faculty ratio based on no. of students (N) as per 5.1

F3: Number of Assistant Profs required = 6/9 x Number of Faculty required to comply with 15:1 Student-Faculty ratio based on no. of students N) as per 5.1

Year	Profs		Associate Profs		Assistant Profs	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY (2017-2018)	5	4	10	7+1*	29	29
CAYm1 (2016-2017)	4	3	9	5+1*	27	27
CAYm2 (2015-2016)	4	4	8	5	23	24
Average Numbers	RF1=4	AF1=3.66	RF2=9	AF2=6.33	RF3=26	AF3=26.66

*1-Adjunct Faculty Dr.Simarjeet Saini

Table B.5.2

Cadre Ratio Marks = $\left(\frac{AF1}{RF1} + 0.6 \times \frac{AF2}{RF2} + 0.4 \times \frac{AF3}{RF3}\right) \times 10$

= (0.915+0.422+0.41)×10 **= 17.47**

5.3 Faculty Qualification (20)

FQ =2.0 x [(10X +4Y)/F)] where x is no. of regular faculty with Ph.D., Y is no. of regular faculty with M. Tech., F is no. of regular faculty required to comply 1:15 Faculty Student ratio (no. of faculty and no. of students required are to be calculated as per 5.1)

	X	Y	F	FQ=2.0 x [(10X +4Y)/F)]
CAY (2017-2018)	**13**	**28**	**44**	**11**
CAY*m*1 (2016-2017)	**11**	**25**	**40**	**10.5**
CAYm2 (2015-2016)	**10**	**23**	**35**	**11**
Average Assessment				**10.83**

Table B.5.3

5.4 Faculty Retention (10)

No. of regular faculty members in CAYm3=38 CAYm2=33 CAYm1=35 CAY=40

Details	CAY 17-18	CAYm1 16-17	CAYm2 15-16
Total number of faculty	**40**	**35**	**33**
Number of faculty retained for 3 years	**32**	**31**	**28**
Faculty retention ratio	**80.0**	**88.5**	**84.84**
Average	**84.45**		

∗-Due to increase in student intake ,new recruits are added in the CAY

Table B.5.4

Item (% of faculty retained during the period of assessment keeping CAYm3 as base year)	**Marks**
>=90% of required Faculty members retained during the period of three academic years keeping CAY*m*3 as base year	10
>=75% of required Faculty members retained during the period of three academic years keeping CAY*m*3 as base year	08
>=60% of required Faculty members retained during the period of three academic years keeping CAY*m*3 as base year	06
>=50% of required Faculty members retained during the period of three academic years keeping CAY*m*3 as base year	04

<50% of required Faculty members retained during the period of three academic years keeping CAY*m*3 as base year	0

5.5. Faculty competencies in correlation to Program Specific Criteria (10)

S. No.	Name of the Staff	ED&IC	CS & CA	Digital & VLSI	SIP	EMF & MW	Instrumentation	ADCS	EMSD	Satellite & MC	PE
1	Dr. R.S. Sabeenian	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	Dr. R. Vinod Kumar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.	Dr.M.Dhanasu	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	Prof. J.P. Senthil Kumar	✓						✓			
4	Prof. S. Deepa						✓		✓		✓
5	Dr. K.R. Kavitha	✓		✓	✓	✓			✓		
6	Dr. N. Sasirekha			✓	✓	✓		✓		✓	
7	Prof. J. Harirajkumar			✓					✓		✓
8	Prof. M. Jamuna Rani	✓			✓			✓	✓		

9	Prof. T. Shanthi	✓		✓	✓						
10	Dr. K. Anguraj			✓	✓		✓		✓		
11	Dr. S. Jayapoorani	✓					✓	✓		✓	✓
12	Dr. G. Ravi								✓	✓	
13	Prof. P. Priya							✓		✓	
14	Dr. S. Vijayalakshmi	✓		✓	✓	✓	✓				
15	Prof. K. Manju	✓			✓	✓		✓			
16	Prof. M. Senthil Vadivu				✓	✓		✓		✓	
17	Prof. T. Prema Kumari	✓		✓	✓	✓	✓			✓	
18	Prof. A. Sangeetha		✓	✓	✓						
19	Dr. B. Thiyaneswaran	✓		✓	✓				✓		
20	Dr. M.E. Paramasivam			✓	✓	✓					

21	Prof. V. Meenakshi			✓	✓	✓				✓	
22	Prof. S. Sree Southry	✓		✓		✓				✓	✓
23	Prof. N.S. Yoganathan	✓	✓	✓				✓	✓		
24	Prof. D.P. Sangeetha		✓	✓	✓		✓		✓		
25	Prof. M. Susaritha			✓				✓	✓	✓	
26	Prof. A.P. Jaya Krishna	✓		✓		✓	✓		✓		
27	Prof. A. Ayub Khan	✓					✓		✓		
28	Prof. P.M. Dinesh	✓		✓	✓		✓				
29	Prof. S. Vijayashaarathi	✓	✓					✓			
30	Prof. A.B. Ahadit	✓	✓			✓			✓		
31	Prof. K. Saranya	✓	✓	✓					✓		
32	Prof. R. Gayathri				✓			✓		✓	

33	Prof. Eldho Paul	✓	✓		✓	✓					
34	Prof. Anand.R			✓	✓			✓			
35	Prof. Vivek karthick.		✓	✓	✓						
36	Dr B.Vasumathi.			✓					✓		
37	Prof. Amutha. M		✓	✓	✓			✓	✓		
38	Prof. Geethalakshmi. V			✓	✓			✓		✓	
39	Prof. Ramkumar .S			✓	✓	✓					
40	Dr.K.R.Kashwan	✓	✓	✓	✓	✓		✓	✓	✓	✓
41	Dr.B.Gopi		✓				✓	✓	✓		✓
42	Prof. S.Imaculate Rosaline	✓			✓	✓				✓	✓

- **Satellite & MC – Satellite and Mobile Communication Systems (TSN, WN, CMC, SC)**
- **PE - Professional Ethics**
- **ED&IC – Electronic Devices and Integrated Circuit. (ED, EC, LIC)**
- **CS & CA – Control System and Circuit Analysis. (CS, AUTO CS, NAS)**
- **Digital & VLSI – Digital System Design and VLSI (DSD, VLSI)**

- **SIP – Signal & Image Processing (SS, DSP, DIP)**
- **EMF & MW – Electromagnetic Field and Micro Wave (MW, EMF, TLWG, AWP)**
- **Instrumentation- M &I, Medical Electronics**
- **ADCS – Analog and Digital Communication Systems (ACS, DC, OFC)**
- **EMSD – Embedded System Design (MP & MC, MC & RISC, CHI, EMBEDDED & RTS)**

Department R&D Verticals

Image Processing	Signal Processing	RF and Microwave Communication systems	Embedded Systems
➢ Medical Image Processing ➢ Document Image Processing ➢ Image Processing for agriculture ➢ Image Processing for fabric defect detection ➢ Weed detection in agriculture field ➢ Noise background removal in UB services ➢ Digital encoding system for Tamil character in palm leave manuscript ➢ Image Processing for wireless Transmission	➢ Signal acquisition and conditioning ➢ Signal processing applications ➢ Biological signal analysis ➢ Audio signal processing	➢ Wireless RF monitoring devices in medical applications ➢ Mobile aircraft tracking system ➢ RF weather monitoring system. ➢ QoS measurement of Zigbee home automation. ➢ Zigbee based industrial automation ➢ RF security and privacy research	➢ High speed design ➢ Thermal design ➢ EMI &EMC ➢ Embedded programming (C, C++) ➢ Device drivers ➢ Embedded operating system ➢ Porting of OS ➢ Sensors ➢ Interfacing with micro processor and micro controller ➢ Analog and Digital design ➢ microprocessor and micro controller & system design
Faculty Incharge- **Prof. T. Shanthi**	Faculty Incharge- **Prof. M. Senthil Vadivu**	Faculty Incharge- **Prof. A.B. Ahadit**	Faculty Incharge- **Prof. S. Deepa**
Faculty members involved Dr. R.S. Sabeenian Prof. M. Jamuna Rani Dr. S. Vijayalakshmi Prof. K. Manju Dr. B. Thiyaneswaran Dr. M.E. Paramasivam Prof. P.M. Dinesh Prof.R. Gayathri Prof. Eldho Paul	**Faculty members involved** Dr. K. R. Kavitha Prof.M.Amudha Prof.R.Anand Prof.S.RamKumar	**Faculty members involved** Dr. R.VinodKumar Mrs.V.Meenakshi	**Faculty members involved** Dr. K. Anguraj Prof. A.P. Jaya Krishna Prof. A.B. Ahadit

Prof.R.Anand			

FPGA based VLSI Design	Nano Electronics	Wireless Networks	PCB Design and Development
➢ Nano Electronics ➢ Low power VLSI ➢ Testing of VLSI Circuits ➢ System on chip	➢ Nano Synthesis and characterization ➢ Nano Plating ➢ Nano device fabrication ➢ Material characterization ➢ Quantum Electronics ➢ Nano Coating	➢ Hand off in cellular networks ➢ WSN in agriculture applications ➢ Design of Antenna in Long term evaluation ➢ Biomedical applications ➢ MANET ➢ Security Protocols ➢ Wireless architecture ➢ GSM ➢ 2G, 3G, 4G, 5G ➢ PAN, Bluetooth, Zigbee, Wifi, Wimax	➢ High speed design ➢ Flexible PCB ➢ EMI Interference ➢ Electro static discharge
Faculty Incharge **Dr. N. Sasirekha**	Faculty Incharge **Dr. K.R. Kavitha**	Faculty Incharge **Dr. R. Vinod Kumar**	Faculty Incharge **Prof. A. Ayub Khan**
Faculty members involved Dr.B. Vasumathi Prof. J. Harirajkumar Prof. V. Meenakshi Prof.Imaculate Rosaline Prof. M. Susaritha Prof. A.P. Jaya Krishna Prof. K. Saranya	**Faculty members involved** Dr. S. Jayapoorani	**Faculty members involved** Prof.J.P.Senthilkumar Dr. G. Ravi Prof. P. Priya Prof. T. Prema Kumari Prof. A. Sangeetha Prof. D.P. Sangeetha	**Faculty members involved** Prof. S. Sree Southry Prof.N.S. Yoganathan

Prof.P.Vivek karthick		Dr. S. Vijayashaarathi	

5.6Innovations by the Faculty in Teaching and Learning (10)

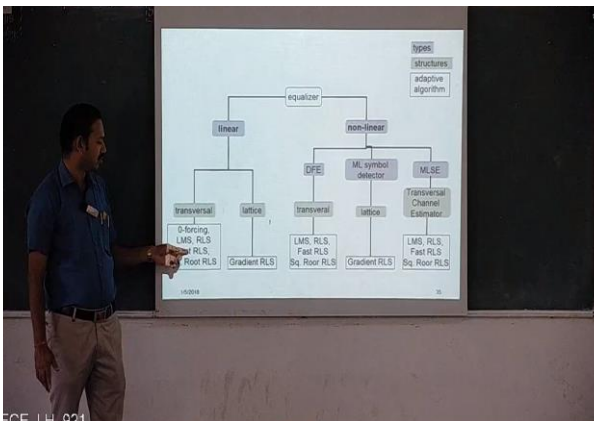
- Use of modern teaching aids like LCD projectors, lecture capturing system (LCS), Wireless Keyboard and mouse, Wireless Presenter, USB wireless pen mouse, Wi-Fi enabled laptops are usually employed in classrooms and other student learning environments.
- Department encourages academic discussions between faculties and students using black board and faculties shares academic study material using it.
- Department has introduced mini projects in the curriculum.
- Usage of Role play, Model Demo, Charts etc. during teaching learning process.
- Online live lecture have been conducted in collaboration with university of Waterloo
- Team teaching for analytical subjects
- Expert video subject lectures delivered by the various eminent resource persons are available in the digital library and it facilitates the faculty and students to utilize E-Tutorials of NPTEL, MOOCs access E-Journals, Video Conference room, etc.
- Faculty members use department library, digital library and other Open Source platforms to enhance their teaching skills.
- The faculty members are encouraged to participate in short term courses, staff development programs and workshops on advanced topics to keep pace with the advanced level of knowledge and skills.
- Over the past years the faculties have been participating /presenting papers in national/international conferences and publish their articles in national/international journals to enrich their knowledge.

LECTURE CAPTURE SYSTEM

- Lecture Capture system is an automated audio-video recording solution for class room lectures.
- It provides access to classroom video lectures and activities in online.
- Students access the recorded video lectures and other materials from anywhere through laptops, tablets and Android platform.
- Achieve a deeper and more current understanding.
- Focus on understanding the class rather than taking notes.
- Availability of all contents at one place.
- Students can post questions anytime through discussion forum.
- Content Catalog – It consist of all the courses that are being taught in college on lecture capture platform.
- Heat Map - Check out which portions of the lecture are most exciting and are been watched the most.

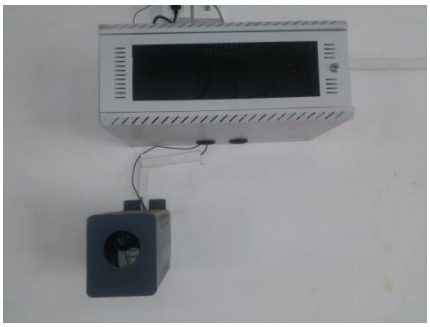
Lecture capturing system (LCS)

LCS with projector



LCS MIC

LCS Camera



Black board

- It is a common application which is used by students and faculty of Sona College of Technology.
- This allows students to submit the assignments online.
- Submitting assignments online with in a particular date enhance time management.
- Online evaluation of the assignment is also available which assigns the marks as and when the assignment is submitted.
- Faculty can post the required reference books on the black board which is much useful for the students during the examination.
- It is also used to attend the online quiz given by the faculty members.
- Notification is given when the assignment is posted.
- It also alerts students when the due date for the submission of assignment is reached.

5.7. Faculty as participants in Faculty development/training activities/STTPs (15)

- A Faculty scores maximum five points for participation
- Participation in 2 to 5 days Faculty/faculty development program: 3 Points
- Participation>5 days Faculty/faculty development program:5 points

Table B.5.7

S. No.	Name of the Staff	CAY 17-18	CAY 16-17	CAYm1 15-16
1	Dr. R.S. Sabeenian	**5**	**5**	5
2	Dr. R. Vinod Kumar	-	3	3
3	Prof. J.P. Senthil Kumar	-	-	3
4	Prof. S. Deepa	5	-	3

5	Dr. K.R. Kavitha	5	-	3
6	Dr. N. Sasirekha	5	5	5
7	Prof. J. Harirajkumar	5	5	3
8	Ms. M. Jamuna Rani	5	-	3
9	Ms. T. Shanthi	5	3	5
10	Dr. K. Anguraj	5	5	3
11	Dr. S. Jayapoorani	5	3	3
12	Dr. G. Ravi	5	5	-
13	Ms. P. Priya	-	5	3
14	Ms. S. Vijayalakshmi	5	3	3
15	Ms. K. Manju	-	3	5
16	Ms. M. Senthil Vadivu	5	3	3
17	Ms. T. Prema Kumari	3	-	3
18	Ms. A. Sangeetha	3	5	3
19	Dr. B. Thiyaneswaran	5	5	3
20	Mr. M.E. Paramasivam	-	3	3
21	Ms. V. Meenakshi	5	5	5
22	Mr. S. Sree Southry	-	3	3
23	Mr. N.S. Yoganathan	-	3	3
24	Ms. D.P. Sangeetha	5	3	3

25	Ms. M. Susaritha	5	5	3
26	Ms. A.P. Jaya Krishna	5	5	3
27	Mr. A. Ayub Khan	-	-	3
28	Mr. P.M. Dinesh	5	-	3
29	MS.A.Geethalakshmi	-	-	-
30	Ms. S. Vijayashaarathi	-	5	5
31	Mr. A.B. Ahadit	-	-	-
32	Ms. K. Saranya	-	5	-
33.	P.Vivek Karthick	-	-	-
34	R.Anand	3	-	-
35.	S.Ramkumar	5	-	-
36	Eldho Paul	3	-	-
Sum		102	105	91
RF= No of faculty required to comply with 15:1student –faulty ratio as per 5.1		44	40	35
Assessment=3*(sum/0.5 RF)		13.9	15.75	15.6
Average Assessment over three years				15

5.8. Research and Development (75)

Academic research includes research paper Publications, Ph.D. guidance, and faculty receiving Ph.D. during the assessment period.

Number of quality Publications in refereed/SCI Journals, citations, Books/Book Chapters etc. (15)

5.8.1. Academic Research(20)

Academic research includes research paper publications, Ph.D. guidance, and faculty receiving Ph.D. during the assessment period.

- Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc.(15)
- Ph.D. guided /Ph.D. awarded during the assessment period while working in the institute(5)

All relevant details shall be mentioned

ACADEMIC YEAR	SCI	SCOPUS	ICI	CITATION	BOOKS PUBLISHED
2017-2018	9	3	3	1120	-
2016-2017	4	7	18	1002	-
2015-2016	-	13	7	879	7

S. No.	Name of the faculty	2017-2018			2016-2017			2015-2016			H-Index
		No. of Publications	Citation Index	Chapters in book	No. of Publications	Citation Index	Chapters in book	No. of Publications	Citation Index	Chapters in book	
1.	Dr. K.R. Kashwan	-	605	-	3	586	-	10	561	2	10
2.	Dr. R.S. Sabeenian	5	432	-	4	372	-	2	305	4	9
3.	Prof. J.P. Senthilkumar	1	-	-	1	-	-	-	-	-	-
4.	Dr. K.R.Kavitha	1	3	-	-	3	-	-	3	-	1
5.	Dr. N. Sasirekha	-	22	-	-	18	-	2	1	-	2
6.	Ms.M.Jamuna Rani	1	-	-	-	-	-	-	-	-	-
7.	Ms.T.Shanthi	-	-	-	1	-	-	-	-	-	-
8.	Dr. G.Ravi	-	29	-	1	23	-	1	9	1	3
9.	K.Manju	1	-	-	1	-	-	-	-	-	-
10.	T.Premakumari	1	-	-	2	-	-	-	-	-	-
11.	Ms. S. Vijayalakshmi	-	-	-	-	-	-	1	-	-	-
12.	Mr.P.M.Dhinesh	1	29	-	-	-	-	-	-	-	3
13.	Mr.P.Vivek karthick	1									
14.	Dr.B.Thiyaneswaran	1	13			10			9		2
15.	Ms.P.Priya	1									
	Total	**14**	**1133**	**-**	13	1012	-	**16**	**888**	**7**	**30**

SCI INDEXED JOURNALS
June 2017 -May 2018

S.No	Author	Title	Vol No.	Issue No.	Year	Page.No.	Publisher	Impact Factor
1	**K.Manju** **R.S.Sabeenian**	Robust CDR Calculation for glaucoma identification	-	Special	July 2017	1-3	Biomedical Research ISSN: 0970-938X DOI**:** 0.4066/ biomedicalresearch. 29-18-767.	Scopus, Web of science,Thomson Reuters IF 0.36
2	B.Murali Babu P.Shyamala S.Saravanan **K.R.Kavitha**	Fabrication and Performance Estimation Of Dye Sensitied Solar Cell Based On Cdse/Zno Nano Particles	28	14	July 2017	10472-10480	Journal of Materials Science.Springer ISSN: 0022-2461 (Print) 1573-4803 (Online) DOI: 10.1007/BF00595764	Scopus, Web of science,Thomson Reuters IF 2.54
3	A.Murugan **R.S.Sabeenian**	An efficient and automatic glioblastoma brain tumor detection using shift-invariant shearlet transform and neural networks	online	online	August 2017	1-11	International Journal of Imaging Systems and Technology ISSN: 08999457, 10981098. DOI: 10.1002/ima.22127.	Scopus, Web of science,Thomson Reuters IF 0.78

4	Murugappan **R.S.Sabeenian**	Texture based medical image classification by using multi-scale gabor rotationinvariant local binary pattern (MGRLBP)	online	online	Nov 2017	1-14	Cluster Computing,Springer ISSN: 1386-7857 (Print) 1573-7543 (Online) DOI: 10.1109/MCSE.2005.28.	Scopus, Web of science, Thomson Reuters IF 2.04
5	**R.S.Sabeenian P.M,Dinesh**	Comparative analysis of zoning approaches for recognition of Indo Aryan language using SVM classifier	online	online	Nov 2017	1-8	Cluster Computing,Springer ISSN: 1386-7857 (Print) 1573-7543 (Online) DOI: 10.1109/MCSE.2005.28.	Scopus, Web of science, Thomson Reuters IF 2.04
6	**T.Premakumari** M.Chandra sekaran	Soft computing approach based malicious peers detection using geometric and trust features in P2P networks	online	online	Jan 2018	1-6	Cluster Computing,Springer ISSN: 1386-7857 (Print) 1573-7543 (Online) DOI: 10.1109/MCSE.2005.28.	Scopus, Web of science, Thomson Reuters IF 2.04
7	T.Yuvaraja **R.S.Sabeenian**	Performance analysis of medical image security using steganography based on fuzzy logic.	online	online	March 2018	1-7	Cluster Computing,Springer ISSN: 1386-7857 (Print) 1573-7543 (Online) DOI: 10.1109/MCSE.2005.28.	Scopus, Web of science, Thomson Reuters IF 2.04

8	**M.Jamuna Rani** C.Vasantahnayaki	Shape adaptive DCT compression for high quality surveillance using wireless sensor networks.	online	online	March 2018	1-8	Cluster Computing,Springer ISSN: 1386-7857 (Print) 1573-7543 (Online) DOI: 10.1109/MCSE.2005.28	Scopus, Web of science, Thomson Reuters IF 2.04
9	**J.P.Senthil kumar** M.Chandrasekaran	A joint local short scheduling mechanism for a successful MIMO-OFDM Communication systems	online	online	March 2018	1201-1218	Wireless Pers Commun Springer ISSN: 1572-834X, 0929-6212. DOI: 10.1007/s11277-016-3729-3.	Scopus, Web of science, Thomson Reuters
10	M.Naveenraj **P.Vivek karthick** S.Karthick	Traffic analysis using magnet in wireless sensor network	118	20	Special 018	431-440	International Journal of pure and applied mathematics ISSN: 13118080, 1314-3395 DOI: 10.12732/ijpam.v115i5.4	Scopus
11	D.Sandhiya, **B.Thiyaneswaran**	Extraction of dorsal palm basilica and cephalic hand vein features for human authentication system					IEEE WISPNET 2017 Conference	Scopus

12	**P.Priya** J.Gowdami V.Roshini G.Sinthanai Selvi	Detection and measurement of Nuclear Radiations	4	-	2017	4213-4218	Materials Today proceedings. Science Direct Elsevier :	Scopus

June 2016 -May 2017

S.No	Author	Title	Volume No.	Issue No.	Year	Page.No.	Publisher	Impact factor
1	Lavanya.S **r.R.S.Sabeenian**	WBM- White Black Mass Estimation Technique Based Iris Recognition for Improved Biometric Authentication	24	10	August 2016	100-120	Transylvanian Review ISSN:12211249 DOI: 10.11648/j.ajaf.	Thomson Reuters
2	S.Ponlatha **r.R.S.Sabeenian**	Multi Attribute Feature Approximation Based Snapshot Generation and Video Compression Using Fractional Wavelet Transform”	24	10	August 2016	170-182	Transylvanian Review ISSN:12211249 DOI: 10.11648/j.ajaf.	Thomson Reuters
3	K.Vidthyavathi **r.R.S.Sabeenian**	Neighbour Block Difference Vector (NBDV) Based Motion Estimation and Self Occlusion Detection in Video Compression	24	10	August 2016	73-95	Transylvanian Review ISSN:12211249 DOI: 10.11648/j.ajaf.	Thomson Reuters

4	**J.P.Senthil kumar** & M.Chandrasekaran	An enhanced multi-channel bacterial foraging optimization algorithm for MIMO communication system.	104	4	December 2016	608-623	International Journal of Electronics Taylor and Francis ISSN: 13623060, 00207217	Scopus, Web of science, Thomson Reuters
8	**Shermin.S K.R.Kashwan**	Enhanced quality of service in mobile sensor networks using extended finite state machine model architecture	10	3	June 2016	73-80	International Journal of Digital content technology and its applications ISSN: 1975-9320	Scopus IF 0.06
15	Gowrishankar.J **K.R.Kashwan**	Design of efficient viterbi decoder for multicarrier system	11	4	Sep 2016	14-20	Journal of Convergence Information Technology ISSN: 2233-9299, 19759320	Scopus IF 0.09
16	Loganayaki.T **K.R.Kashwan**	An extended bilateral filter for speckle noise reduction in ultrasound kidney image	7	3	Sep 2016	13-20	Journal of Next Generation Information Technology ISSN: 2233-9388	Scopus
21	**T.Premakumari** M.Chandrasekaran	R3-SVD: An efficient R3 optimization technique for improved video streaming using singular value decomposition and PSO approach in peer to peer networks	24	7	Dec 2016	2226-2234	Middle –East Journal of scientific Research ISSN: 1990-9233 DOI: 10.5829/idosi.mejsr..	Scopus IF 0.36

23	**T.Premakumari** M.Chandrasekaran	Bandwidth distribution algorithm based DDR scheduler with route selection for real time vodeo streaming in peer to peer networks	15	6	Dec 2016	1139-1145	Asian Journal of Information Technology ISSN: 1682-3915 (Print) 1993-5994 (Online).	Scopus IF 0.35
28	**T.Shanthi** **R.S.Sabeenian** A.Surendar	An automated detection of Microaneursym To Facilitate Better Diagnosis Of Diabetic Retinopathy	14	1	March 2017	483-488	Bio sciences Bio Technology Research,Asia ISSN: 0973-1245	Scopus IF 0.2
29	**K.Manju** **R.S.Sabeenian**	A review on optic disc and cup segmentation	10	1	March	373-379	Bio medical and pharmacology journal ISSN: 2456–2610	Scopus IF 0.17

June 2015 -May 2016

S.No	Author	Title	Volume No.	Issue No.	Year	Page. No.	Publisher	Impact factor
1.	Velu C. M. and **K. R. Kashwan**	ANN Based Market Segmentation Model of Customer Mapping to Geographical Location in ICT Enabled Smart Cities	10	1	Jan 2015	58-66	Journal of Convergence Information Technology ISSN: 2233-9299, 19759320	Scopus SNIP: 1.071
2.	G. Selvaraj and **K. R. Kashwan**	Reconfigurable Adaptive Routing Buffer Design for	8	12	June 2015	1-9	International Journal of Science and	Scopus SNIP: 1.3

		Scalable Power Efficient Network on Chip					Technology ISSN:2321 – 919X	
3.	Thirumalai T., **Kashwan K. R**	New Reader to Reader Anti-Collision Protocol for Mobile and Dense RFID Reader Environment: A TDMA based Approach	7	4	July 2015	10-21	International Journal of Advancements in Computing Technology ISSN:20058039	Scopus SNIP: 0.966
4.	**Ravi G**. and **Kashwan K. R.**	Performance Analysis 0f Energy Aware Zone Routing Protocol Using Span	37	1	Sep 2015	1-6	International Journal of Computers and Applications ISSN:1206212	Scopus SNIP: 0.455
5.	Loganayagi T. and **Kashwan K. R**	A Robust Edge Preserving Bilateral Filter for Ultrasound Kidney Image	8	23	Sep 2015		Indian Journal of Science and Technology ISSN:	Scopus SNIP 0.987
6.	**Sasirekha N.** and **Kashwan K. R.**,	Improved Segmentation of MRI Brain Images by Denoising and Contrast Enhancement	8	22	Sep 2015	1-7	Indian Journal of Science and Technology ISSN: 0974-6846 0974-5645 DOI: 10.17485/ijst	Scopus SNIP 0.987
7.	Loganayagi T. and **Kashwan K. R**	An Analysis of Speckle Reduction in Ultrasound Kidney Images by Adaptive Bilateral Filter	9	5	Sep 2015		International Journal of Digital Content Technology and its Applications ISSN: 1975-9320 1975-9339	Scopus SNIP: 0.989
8.	K.Vidyavathi **Dr.R.S.Sabeenian,**	Certain Investigations on video streaming and Frame rate classification for multimedia	67	3	Sept 2015	547-553	Journal of Theoretical and Applied Information	Scopus 0.320

		Applications.					Technology ISSN: 1817-3195 1992-8645	
9.	S.Lavanya **Dr.R.S.Sabeenian**,	Novel Segmentation of Iris Images for Biometric Authentication Using Multi Feature Volumetric Measure, Research	11	4	Oct 2015		Journal of Applied Sciences, Engineering and Technology ISSN: 2040-7467	Scopus 0.5
10.	Shermin S. and **Kashwan K. R**	An EFSM Based Fault Detection Model for Wireless Sensor Networks	10	6	Nov 2015		Journal of Convergence Information Technology ISSN: 2233-9299, 19759320	Scopus SNIP: 1.071
11.	**Sasirekha N** and **K R Kashwan**	Gradient Based Bilateral Filtering in Wavelet Domain for Removing Rician Noise	10	2	Mar 2016	61-77	International Journal of Digital Content Technology and in application ISSN: 1975-9320 1975-9339	Scopus SNIP: 0.989
12.	Shermin S. and **Kashwan K. R**	Malicious Node Isolation Using Quality Secured Extended Finite State Machine Architecture in Wireless Sensor Networks	7	6	Mar 2016		International Journal of Advancements in Computing Technology (IJACT) ISSN: 20058039	Scopus SNIP: 0.966
13.	**S VijayaLakshmi** And S Padma	Hybrid SVD based Hilbert Huang transform technique for Abnormality detection in Brain MRI images	12	6	Mar 2016	686-695	Research Journal of Applied sciences, Engineering and Technology ISSN: 20407459, 20407467	Scopus 0.654

Ph.D guided/Ph.D awarded during the assessment period while working in the institute (5)

List of Ph.D Supervisor

S.No	Name of Ph.D Supervisor	Name of the University
1	Dr.R.S.Sabeenian	Anna University, Chennai
2	Dr.K.R.Kashwan	
3	Dr.K.R.Kavitha	
4	Dr.G.Ravi	
5	Dr.B.Vasumathi	

List of Faculties awarded Ph.D

S.No	Name of the faculty	University	Year of award of Ph.D
1	Dr.R.S.Sabeenian	Anna University,Chennai	2009
2	Dr.K.R.Kashwan	Tezpur University, Assam	2007
3	Dr.B.Gopi	Anna University,Chennai	2014
4	Dr.D.Jayanthi	Anna University,Chennai	2013
5	Dr.S.Jayapoorani	Anna University,Chennai	2013
6	Dr.K.R.Kavitha	Anna University,Chennai	2014
7	Dr.G.Nirmala Priya	Anna University,Chennai	2014
8	Dr.B.Vasumathi	NIT,Trichy	2014

9	Dr. B. Thiyaneswaran	Anna University,Chennai	2014
10	Dr. R. Vinod Kumar	Anna University,Chennai	2015
11	Dr. K. Anguraj	Anna University,Chennai	2015
12	Dr. G. Ravi	Anna University,Chennai	2016
13	Dr. N. Sasirekha	Anna University,Chennai	2016
14	Dr. S. Vijaya Lakshmi	Anna University,Chennai	2017
15	Dr.M.E.Paramasivam	Anna University,Chennai	2018

List of Scholars awarded Ph.D

S.No	Name of the faculty	University	Year of award of Ph.D
1.	Selvaraj G.	Anna University,Chennai	2015
2.	C. M. Velu	Anna University,Chennai	2015
3.	Balakrishnan S. G.	Anna University,Chennai	2015
4.	Karthik S.	Anna	2015

		University,Chennai	
5.	Thirumalai T.	Anna University,Chennai	2016
6.	G. Ravi	Anna University,Chennai	2016
7.	N. Sasirekha	Anna University,Chennai	2016
8.	Loganayaki T.	Anna University,Chennai	2016
9.	Dattathreya K. A.	Anna University,Chennai	2016
10.	Shermin S.	Anna University,Chennai	2017
11.	Varatha Guru.M	Anna University,Chennai	2018
12.	M.E.Paramasivam	Anna University,Chennai	2018
13.	S.Ponlatha	Anna University,Chennai	2018

Supervisor: Dr.R.S.Sabeenian

S.NO	NAME	DEGREE	FACULTY	REG YEAR	REG SESS	STATUS
1	Varadhaguru	Ph.D.	Ice	2011	JAN	Completed
2	Paramasivam. M.E	Ph.D.	Ice	2011	JAN	Completed
3	Ponlatha	Ph.D.	Ice	2010	JAN	Completed
4	Yuvaraja T	Ph.D.	Ice	2011	JAN	Synopsis Submitted
5	Anandan P	Ph.D.	Ice	2011	JAN	Thesis Submitted
6	Gayathri R	Ph.D.	Ice	2011	JAN	Thesis Submitted
7	Manju K	Ph.D.	Ice	2011	JAN	Synopsis Submitted
8	Shanthi T	Ph.D.	Ice	2011	JAN	Synopsis Submitted
9	Dinesh P M	Ph.D.	Ice	2012	JAN	Synopsis Submitted
10	Murugan A	Ph.D.	Ice	2010	JUL	Thesis Submitted
11	Vidyavathi K	Ph.D.	Ice	2010	JUL	Thesis Submitted
12	Murugappan V	Ph.D.	Ice	2010	JUL	Thesis Submitted
13	Lavanya S	Ph.D.	Ice	2010	JUL	Thesis Submitted

Supervisor: Dr.G.Ravi

S.NO	NAME	DEGREE	FACULTY	REGYEAR	REGSESS	STATUS
1	Vimalnath S	Ph.D.	Ice	2017	JUL	Course Work
2	Rajamanickam G	Ph.D.	Ice	2017	JUL	Course Work
3	Sathish Kumar S	Ph.D.	Ice	2017	JUL	Course Work
4	Sankar Ganesh S	Ph.D.	Ice	2017	JUL	Course Work
5	Sekar R	Ph.D.	Ice	2018	JAN	Course Work
6	Ravishankar Kandasamy	Ph.D.	Ice	2018	JAN	Course Work
7	Mahaboob John Ym	Ph.D.	Ice	2018	JAN	Course Work
8	Nagalalli G	Ph.D.	Ice	2018	JAN	Course Work

Supervisor: Dr.K.R.Kashwan

S.NO	NAME	DEGREE	FACULTY	REG YEAR	REG SESS	STATUS
1	Amasavalli.A	Ph.D.	Ice	2009	JUL	Completed
2	Bala Krishnan.S.G	Ph.D.	Ice	2008	APR	Completed
3	Karthick.S	Ph.D.	Ice	2008	APR	Completed
4	Velu.C.M	Ph.D.	Ice	2009	JUL	Completed
5	Thirumalai.T	Ph.D.	Ice	2008	APR	Completed
6	G.Ravi	Ph.D.	Ice	2008	APR	Completed
7	Dattatherya.K.A	Ph.D.	Ice	2008	APR	Completed
8	Selvaraj.G	Ph.D.	Ice	2009	JUL	Completed
9	Loganayagi	Ph.D.	Ice	2008	APR	Completed
10	N.Sasirekha	Ph.D.	Ice	2008	APR	Completed
11	Shermin.S	Ph.D.	Ice	2008	APR	Completed
12	S.Swapna Kumar	Ph.D.	Ice	2009	JUL	Completed

5.8.2 Sponsored Research (20)

Funded research from outside:

(Provide a list with Project Title, Funding Agency, Amount and Duration)

Funding Amount (Cumulative during last three academic years starting from CAYm1):

Amount > 50 Lacs – 20 Marks,

Amount > 40 and $\leq$50 Lacs – 15 Marks,

Amount > 30 and $\leq$40 Lacs – 10 Marks,

Amount $\geq$15 and $\leq$30 Lacs – 5 Marks,

Amount < 15 Lacs – 0 Marks

S.No	Title of the Project	Agency and Scheme	Principal Investigator (s) (PI) & (Co –PI)	Grant in lakhs	Period	Status
1	Development of Digital Encoding System for Tamil Characters in Palm Leaf Manuscripts	AICTE CAYT	PI -Dr.R.S.Sabeenian	3.30	2015-2018	On going
2	Centre of Excellence for Fabric Defect Detection using Intelligent image analytics	DST – FIST	CO-PI Dr.R.S.Sabeenian Prof.T.Shanthi Prof.M.E.Paramasivam Prof.K.Manju Prof.P.M.Dinesh	42.58	2016-2021	On going

3	ICT Interventions to Promote Entrepreneurship Development of Women SHGs in Salem District, Tamil Nadu through Rural Agricultural Support Centers (Agri BPOs)	DST – SEED	Co-Investigator Dr.R.S.Sabeenian	56.35	2016-2019	On going
4	Pulse plating for silver anklet industry	DST - WTP	Co-Investigator Dr.S.Jayapoorani	33.00	2016-2019	On going
5	A proof of concept for indoor navigation using real time image recognition algorithm	DST - TIDE	Co-Investigator Dr.R.S.Sabeenian Prof.M.E.Paramasivam	76.88	2018-2021	On going

5.8.3. Development activities(15)

Product Development
2014-2017

S.No	Title of Product
1	Hall sensor mounting flexible PCB design for BLDC motor (Sona SPEED –ISRO)
2	PCB design for regulated power supply (5v/12v) (Sona Speed)
3	PCB design for Testing board (Sona Speed)
4	PCB design for MOSFET Bridge (Sona Speed)
5	Long Range Wireless MIC
6	Security Alert System
7	Accident Announcement System
8	Accident Control System
9	Automatic head light dimmer
10	Multiple overhead system automation
11	Solar DC to DC Power systems
12	Brightness based light adoptive system
13	Railway signal automation using wireless communication
14	Adaptive speed governor
15	Intelligent autonomous ironing machine using PIC microcontroller
16	Milk monitoring system for early detection of microbial activity

17	Pulse plating on copper Electrode using zirconium di boride being used for the manufacturing of watches

Hall sensor mounting flexible PCB design for BLDC motor (Sona SPEED –ISRO)

A flexible PCB is designed with hall sensors to monitor the temperature of the BLDC motor.

PCB design for regulated power supply (5v/12v) (Sona SPEED)

A 5V/12V power supply PCB is designed in a single board for various testing purpose.

PCB design for MOSFET Bridge (Sona SPEED)

A motor drive circuit is designed with MOSFET Bridge to drive the BLDC motors.

Long Range Wireless mic

The Embedded system with mobile communication is used to announce emergency situation to the nearby public place. In case of emergency, the person can use their secret key to connect the phone Mic to the Public audio system to announce the situations directly to all surrounding people. This system specially useful at the time of theft.

Security Alert System

The system is used to alert the security on random time interval. The alertness of the security person can be verified from the video recorded.

Accident Announcement System

Automatically announce the occurrence of accident within few seconds to the nearest ambulance and to the hospitals.

Accident Control System

The system monitors the obstacles in front of the vehicles and alert the driver to reduce speed.

Automatic head light dimmer

Automatically dims the head light of vehicle to avoid accident due to high intensity of light during night hours.

Pulse plating on copper Electrode using zirconium di boride being used for the manufacturing of watches

The copper electrode die was plated with zirconium di boride. The various parameters such as on time, off time, frequency and time were identified and optimized for effective plating with the size less than 5 micrometer. Similarly the optimization of the bath was also carried.

Research laboratories

S.NO	NAME OF THE LAB	HEAD
1	Sona Signal and Image Processing	Dr.R.S.Sabeenian
2	Sona VLSI systems and Communication Technology	Dr.N.Sasirekha

Sona Signal and Image PROcessing Research Centre (SonaSIPRO)

Sona SIPRO had its modest beginning on August 2009 under the manifestation of Most Revered Honourable President Dr.A.P.J.Abdul Kalam. Sona SIPRO has always tried to develop efficient algorithms to address socio-relevant problems.

Vision

- To be a pioneer in signal and image processing research.
- Try to use technological advancements for solving societal problems
- Become an internationally renowned centre for excellence in signal and image processing.

Objectives

- Apply various mathematical concepts and hence utilize them for image processing applications, thereby providing solutions for everyday societal problems.
- Collaborate with academic, industry and non-governmental organizations falling under the matching areas for carrying out competitive research.
- Develop algorithms pertaining to the area of signal and image processing and hence evaluate them on a real-time scenario.

Research Projects:

Completed Projects:

1. Fabric Defect Detection in Handloom Cottage Silk Industries (Funded by AICTE under Research Promotion Scheme (RPS) F. No:8023/BOR/RID/RPS-108/2008-09 Dated 12-03-2009)
    - The prototype developed was to identify 10 major defects present in silk fabrics.
    - Multi-Resolution Combined Statistical Feature (MRCSF) method was developed for identification of defects
    - Markov Random Field – Multi Resolution Combined Statistical Feature (MR-MRCSF) was an improvised algorithm developed for accurate identification of defects

2. Weed Detection using Multi-Resolution Analysis
    - An image processing technique to identify the presence of weed in a paddy field

- The developed Multi-Resolution algorithm was more efficient in identifying PasteriumHystophoresis, a common weed in paddy fields.
- The method developed was also capable of discriminating large, medium and small weeds in paddy fields.

3. Identification and counting of fertile pollen grains using Morphological operators

The developed prototype has the capability to count the number of fertile and infertile pollen grains in a given microscopic image.

4. Disease Identification in Fruits

S.No	Year	Title of the Project	Agency & Scheme	Principal/ Co-Principal Investigator (PI)	Grant in Rs
1.	2015-2016	Intelligent vision system for detection of foreign objects in dry seeds	Vee Technologies	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.P.M.Dinesh	8,50,000
2.	2015-2018	Development of Digital Encoding System for Tamil Characters in Palm Leaf Manuscripts	AICTE CAYT	Dr.R.S.Sabeenian	3,30,000
3.	2013-2016	Weed Detection using Image Processing	Chockalingam Trust	Dr.R.S.Sabeenian and Team	7,00,000
4.	2013	Intelligent Toll Gate using RFID	TNSCST - Chennai	Dr.R.S.Sabeenian	10,000
5.	2012-2014	Preparation of Detailed Project report for the Modernization of Army Base Workshop at Delhi, Meerut, Pune and Jaipur	Consultancy	Dr.R.S.Sabeenian Prof.M.E.Paramasivam &P.M.Dinesh	3,00,000
6.	2012-2014	Identification and counting of Fertile Pollen grains in flowers	KEREKHAN ESTATE	Dr.R.S.Sabeenian and Team	6,00,000
7.	2010-2011	Digitalization of Handwritten Classical Tamil Language	TNSCST - Chennai	Dr.R.S.Sabeenian	6,000
8.	2009-2012	Fabric Defect Detection in Handloom Cottage Silk Industries	AICTE (RPS) – New Delhi	Dr.R.S.Sabeenian & Mr.M.E.Paramasivam	3,00,000
TOTAL					**30,96,000**

- The developed system was able to identify defects present in Tomato and Apple
- Morphological and Multi-Resolution techniques were used for identifying the type of defect on the fruit.

Grants Details

Ongoing projects

S.No	Year	Title of the Project	Agency & Scheme	Principal/ Co-Principal Investigator (PI)	Grant in Rs
1.	2018 - 2021	A proof of concept for indoor navigation using real time image recognition algorithm	DST-TIDE	Co PI :Dr.R.S.Sabeenian Prof.M.E.Paramasivam	76,87,948
2.	2015-2017	Intelligent Vision Analytics System for defect detection in lentils	Nanolytix	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.P.M.Dinesh	4,50,000
3.	2016 - 2019	ICT Interventions to Promote Entrepreneurship Development of Women SHGs in Salem District, Tamil Nadu through Rural Agricultural Support Centers (Agri BPOs)	DST – SEED	Co-PI :Dr.R.S.Sabeenian	56,35,204
4.	2016 – 2021	Centre of Excellence for Fabric Defect Detection using Intelligent image analytics	DST – FIST	Team Head :Dr.R.S.Sabeenian Prof.T.Shanthi Prof.M.E.Paramasivam Prof.K.Manju Prof.P.M.Dinesh	42,58,925
TOTAL					**1,80,32,077**

Grants received for organized workshop/FDP/STTP/Guest Lecture

S.No	Year	Title of the Project	Agency	Co-ordinators	Grant in Rs
1	2016	AICTE-INAE Distinguished Visiting Professorship Scheme	AICTE & INAE	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.P.M.Dinesh	DA ,TA& Honorarium of expert member funded by AICTE & INAE
2	2015	AICTE-INAE Distinguished Visiting Professorship Scheme	AICTE & INAE	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.P.M.Dinesh	DA ,TA& Honorarium of expert member funded by AICTE & INAE
3	2014	AICTE-INAE Distinguished Visiting Professorship Scheme	AICTE & INAE	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.P.M.Dinesh	DA ,TA& Honorarium of expert member funded by AICTE & INAE
4	2015-2016	National Level workshop on "LabVIEW for Machine Learning of Images"	IETE – New Delhi	Dr.R.S.Sabeenian Prof.T.Shanthi& P.M.Dinesh	25,000
5	2014	National Level Workshop on Translation of Research in Image Processing to Clinical Image Based Diagnostic Procedures	IETE – New Delhi	Dr.R.S.Sabeenian Prof.T.Shanthi	50,000
6	2014	Recent Advancement & future scope of Research in Image Processing	AICTE FDP	Dr.R.S.Sabeenian and Team	4,50,000
7	2013	National Conference on Communication Signal & Image Processing NCCSIP'13 on 12.04.2013	IETE – New Delhi	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.T.Shanthi	50,000
8	2012	Workshop on "Research Opportunities for	IETE – New Delhi	Dr.R.S.Sabeenian Prof.M.E.Paramasivam	15,000

		Digital Image Processing in today's Scenario"		&P.M.Dinesh	
9	2012	FDP on "Digital Signal Processing"	Anna University-Chennai	Dr.R.S.Sabeenian	70,000
10	2014	FDP on Signals and Systems	IIT Kharagpur	Dr.R.S.Sabeenian Prof.M.E.Paramasivam &P.M.Dinesh	1,50,000
TOTAL					**8,10,000**

Continuing Education

Period	Title	Co-ordinators	Amount in Rs
13.12.2017 to 29.12.2017	Engineering application using LAB view and CLAD certification	Dr.R.S.Sabeenian Prof.P.M.Dinesh Prof.EldhoPaul	1,45,000
11.09.2017 to 29.09.2017	Basic C Programming in Continuous Time and Discrete Time signals using GNURADIO	Dr.R.S.Sabeenian R.Anand P.M.Dinesh	21,750
29.05.2017 to 03.06.2017	Digital Image Processing using OpenCV & Python	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.P.M.Dinesh	27,000
TOTAL			**1,93,750**

Achievements

- Dr.R.S.Sabeenian, received AICTE Career Award for Young Teachers (CAYT) for the project of Development of digital encoding system for Tamil Characters in Palm leaf Manuscripts for three years.(2015-2018)
- Dr.R.S.Sabeenian, received Shri P K Das Memorial Best Faculty Award –Senior category under ECE stream on 15.12.2015
- Dr.R.S.Sabeenian, received "ISTE Periyar Award" for Best Engineering College Teacher for the year 2012
- Dr.R.S.Sabeenian, received "IETE BimanBehari Sen Memorial Award" for outstanding contributions in the emerging areas of Electronics and Telecommunication with emphasis on R&D for the year 2011.
- Dr.R.S.Sabeenian, received "ISTE RajarambapuPatil National Award" for promising Engineering Teacher for Creative work done in Technical Education (Colleges) for the year 2010.
- Dr.R.S.Sabeenian, received "Best Faculty Award" for the Academic year 2009-2010 in the ECE/EEE Stream from the Nehru Group of Institutions on 15-12-2009.The Award was given amongst a competition of 400 and odd faculties in three states.
- Dr.R.S.Sabeenian, received "Best Research Paper Award" for the Research Paper

entitled as "Hand written Text to Digital Text Conversion using Radon Transform and Back Propagation Network (RTBPN)" Springer International Conference on Advances in Information and Communication Technologies ICT 2010 held on September 07-09,2010 at Cochin, India.

- Dr.R.S.Sabeenian, received "Best Research Paper Award" for the Research Paper entitled as "Multi Resolution Adaptive Video Streaming using Scalable Video Coding" IEEE International Conference on Advances in Communication, Network and Computing CNC 2010 held on October 04-05, 2010 at Calicut Kerala.
- Dr.R.S.Sabeenian and Prof.Dinesh received "Best Research Paper Award" for the Research Paper entitled as "Multi Format Scalable Media Decoder Implementation using OMAP3530" International Conference on Computational Intelligence and Computing Research (ICCIC'10) held on Dec 2010 at TCE, Coimbatore.
- Dr.R.S.Sabeenian and Prof.Dinesh received "Best Research Paper Award" for the Research Paper entitled as "Multi Format Scalable Media Decoder Implementation using Beagle Board" UGC Sponsored National Conference on Multimedia Signal Processing (NCMSP 11) held on Feb 16-17,2011 at Annamalai University.

SONA VLSI Comm

The center is started in the year 2005 with name VLSI and Photonics and later renamed as SONA VLSIComm in the year 2015.

Vision

- To achieve excellence in the area of FPGA based VLSI design for circuits, systems and modern high performance communications technology embedding artificial intelligence and IOT to create smart electronic solutions for the engineering problems.

Objectives

- To design, develop and realize intelligent electronics circuit and systems for industrial applications
- To develop modern ultra-high performance communication technologies for high speed data communications, sensor networks and IOT.
- To design, simulate and fabricate RF patch / strip antenna for compact and portable applications.
- To program configure FPGA based prototype models using embedded principles for electronic circuits at par with performance of ASIC circuit.
- Apply new principles for the frontier research areas of defense, agriculture, smart cities, energy optimization, IC integration with human body and artificial intelligence.
- This centre has 3 Ph.D holders and 12 Ph.D scholars. They published 50 International Journals, 3 national Journals and 22 national conferences.

Major Areas of Research

VLSI Circuits and Embedded Systems, Wireless Communication, Sensor Networks, Networks on Chip, Optical Communications, Patch/Strip Antenna.

In-house Ph.D Works

- Streaming of High definition video in Heterogeneous wireless networks
- Optimisation energy cluster based routing scheme for Mobile Adhoc network

Major Achievements

Publications - 90 International Journals, 94 International Conferences and 72 National Conferences

- Revenue Generated – Rs 30.70 Lakh.
- AICTE Grant of Rs 11.50 Lakh for RPS scheme, Rs 5.00 Lakh for MODROBS
- IIT Grant of Rs.64, 989 for Two week ISTE STTP on CMOS, Mixed Signal and Radio Frequency VLSI Design.
- PICO Satellite – Designed a Microstrip / Patch Antenna, completed successfully.
- Research papers presented in Singapore, China and Sri Lanka.

Future Plans

- To publish more research papers in SCI and Scopus indexed journals .
- Involve more students in R&D activitiesand finding solutions to technical problem related with the society.
- Concentrate on social related project linking with industry.
- To work for more funded projects.

Awards received by ECE Faculty members

ISTE PERIYAR STATE AWARD

ISTE RAJARAM BABU PATEL AWARD

SHRI PK DAS MEMORIAL BEST FACULTY AWARD

YOUNG FACULTY AWARD VIFFA

AICTE CAREER AWARD FOR YOUNG TEACHER (CAYT)

BEST FACULTY AWARD JUNIOR (NEHRU GROUPS)

BEST FACULTY AWARD SENIOR (NEHRU GROUPS)

IEEE & SPRINGER RESEARCH PAPER AWARD

Instructional Materials
CCTV surveillance systems

Smart Professional Surveillance System (PSS) User's Manual

Overview

Smart PSS is a software to manage small quantity security surveillance devices. It has the following features:

- View real-time video of several camera channels.
- View the playback video files from various cameras.
- Support multiple scheduled arms to realize auto PC guard.
- Support e-map
- Clearly view and manage all device locations.
- It supports video wall to monitor all cameras at the same time.
- It can create individual configuration files for each user.
- Support alarm indication features.

System Requirements

OS : Windows 2000/Windows XP/Windows 2003/Window Vista/Win7.

CPU : 2.4GHz or higher.

Display card: Independent car and support direct X 8.0c or higher.

Memory: 1GB or higher.

Displayer Resolution: 1024×768 or higher

Installation Steps

1) Double click "SmartPSS_Setup.exe" to begin installation.
2) Select installation language from the dropdown list and then click OK button to go to Welcome interface.
3) Click next button to see License Agreement.
4) Check the accept dialogue box and then click next button to continue.
5) Check Smart PSS dialogue box and then click next button to see the installation path.
6) After selecting installation dialogue box, click next button to start the installation.
7) Click Finish button to complete the installation.

PCB system design

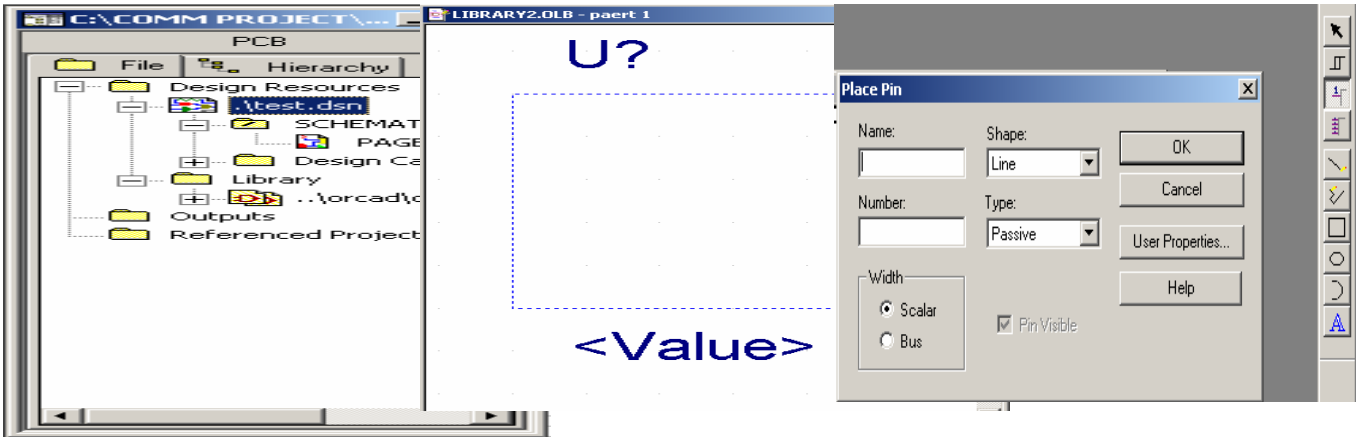
- This manual is to guide the reader about the Printed Circuit Board (PCB) design of a two layer PCB.

- The first step in the design is to familiarize the person with the OrCAD family, OrCAD Capture which is used to draw the schematic diagram, and also OrCAD Layout which is used for the actual layout design of the PCB.

- Once the circuit is made on PCB it is very hard to troubleshoot and change so it is recommended that the design is prototyped by constructing in a breadboard and tested before making the PCB.

Making a Symbol **Making new component screen.**

Making a new pin.



Working models /charts /monograms etc.

Working models

S.No	Year	No of working models
1	2017-2018	89
2	2016-2017	32
3	2015-2016	23

2017-2018

1.	Sixth sense media Player
2.	Third eye for the blind
3.	Bus ticket control system
4.	Smart dustbin
5.	Automated power off system
6.	RFID based attendance system
7.	Power generation using speed breaker with auto street light
8.	Arduino based anti theft device
9.	Simple 100 Watt Inverter
10.	Smart door lock using Arduino for disabled person
11.	Heart beat monitoring system

12.	Automatic Temperature controlled motor using Arduino
13.	IR based security alarm using IC 555 Timer
14.	Accident detection system
15.	Password based circuit breaker system ensuring Lineman safety
16.	Automatic Railway gate controller using Arduino
17.	Automatic switching of home light using LDR with Arduino
18.	Face recognition system for office security using LabVIEW
19.	Hidden active cell phone detector using Arduino
20.	Sun tracking system using solar panel with Arduino
21.	Smoke detecting alarm circuit using MQ-2 gas sensor
22.	RF based automatic speed control of Vehicle
23.	Vehicle accident prévention system using eye blink sensor
24.	Emergency mobile charger using dc motor
25.	IR based home automation
26.	Person identification system
27.	Solar tracker device using arduino
28.	Automatic door light
29.	Generation of electricity using footsteps
30.	Accident collision controller
31.	Design and implementation of viterbi decoder using xilinx
32.	Portable USB charger
33.	Traffic controller for emergency services
34.	Design of digital code lock using vhdl
35.	Electronic eye
36.	Flourscent lamp recycling
37.	Mobile charger using sound energy
38.	Smart lighting system using bidirectional counters
39.	Friendly mobile chargers
40.	Engine locking system through alcohol detection using arduino
41.	Vibration alarm
42.	Mobile phone detector
43.	Underwater robotics using arduino
44.	Ic tester using arduino microcontroller
45.	Sewage cleaning robot
46.	Touch switch
47.	GSM based gas leakage indicator
48.	Power generation by using TEG plates
49.	GPS and GSM based self defense system for women safety

50.	Security system using Labview and SMTP protocol
51.	Embedded systems in avoiding accidents at blind corners
52.	LPG gas leakage detection using Arduino and GSM
53.	Design of Traffic controller using Arduino and IR sensor
54.	E-voting machine using Arduino
55.	Vehicle number plate recognition system
56.	Automatic gate opening system using RFID
57.	Automatic rain sensing CAR wiper
58.	Smart trashcan using MQTT
59.	Smart auto using MQTT
60.	Visitor counter and control
61.	Swmart home and voice controlled car
62.	Vehicle accident detection using auto messaging facility
63.	Elephant detector
64.	Smart agriculture using IOT
65.	Wireless electronic notice board
66.	Child detection
67.	Ultrasonic voice based walking stick
68.	Ultrasonic ased blind path finder system
69.	Wireless electronic notice board using GSM
70.	Well water control and indicator using relay
71.	Touch switch
72.	Pipe cleaning robot
73.	Power demand
74.	Detection of blood vessels in eye using image processing
75.	Temperature controlled fan using Arduino
76.	Rain water alarm
77.	Noise filtering in ECG
78.	Controlling lights using web page
79.	Third eye for blind people
80.	To call and send message using GSM
81.	Alcohol detection ad engine lock system using Arduino
82.	Design implementation of viterbi algorithm using xilinx
83.	Wireless based office automation using Rf
84.	IoT and GSM based automatic control system
85.	Design and analysis of accurate and approximate 15-4 compressor for efficient power multiplier
86.	Servo motor control using Arduino

87.	Remote control for home appliances
88.	Anti theft petrol alarm
89.	Break failure indicator

2016-2017

1.	RF based remote monitoring of sensor nodes using Arduino and BLYNK
2.	Arduino based digital thermometer using temperature sensor LM 35
3.	Arduino based fire alarm using IR sensor
4.	Speed control of DC motor using pulse width modulation
5.	Arduino based wireless electronic notice board using GSM
6.	Wireless power transmission in inductive coils using 555 timer
7.	Emergency mobile charger using mechanical force
8.	Mobile based control of home appliance using Arduino and IOT
9.	Ultrasonic based obstacle detector using Arduino
10.	Automatic washroom light switch using counter IC CD4017 and laser
11.	Home automation using DTMF
12.	Auto turnoff soldering iron rod circuit using IC 555 timer
13.	Lamp life extender by zero voltage switching using Arduino
14.	Automatic night lamp with morning alarm
15.	Peltier cell mobile charger using Arduino
16.	Piezo electric based power generation for alarm and led using IC555 timer
17.	Auto intensity controller using Arduino and LDR sensor board
18.	Arduino based security system using piezo electric sensor and 555 timer
19.	Single chip FM radio circuit
20.	Detection of hidden mobile phone activity using IC 3130
21.	Mobile based controlling of led lights in home using Arduino and IOT
22.	Vehicle brake alert system
23.	Mobile based smart class automation using IOT
24.	GSM based air quality monitoring system using PIC microcontroller
25.	Antisleep alarm for drivers using IR sensor
26.	Railway passenger safety system using PIC microcontroller
27.	Automatic water level control system using IC 555 timer
28.	Automatic railway gate control using Arduino
29.	Ultrasound distance meter using raspberry PI
30.	Intelligent switch using op-amp LM358
31.	Security alert using Arduino and GSM module
32.	Ultrasonic voice based alarm for blind

2015-2016

1.	Voice controlled robot using Arduino
2.	Arduino based lie detector using pulse sensor
3.	Automatic fan controller
4.	Traffic light control system using Arduino
5.	Human detection by live body sensor
6.	RFID based paid car parking system
7.	Visitor counter using IR sensor
8.	Firefighting robot
9.	Pc based electrical load control
10.	Laser audio transceiver using IC LM386
11.	Automatic streetlight controller using Arduino
12.	Ultrasonic based radar system in defense
13.	RF based remote control for home electrical appliances
14.	Voltage protection alarm
15.	PIR based security alarm circuit using IC UM3561
16.	Rain alarm sensor using IC 555 timer
17.	Clock with led pendulum and tick tock sound
18.	PC based wireless stepper motor using RF transmitter and receiver
19.	Solar mobile charger using IC 7805
20.	Automatic temperature based machine control
21.	Power saver circuit for home appliances using PIR sensor
22.	Password lock door alarm using Arduino
23.	Horn system for deaf people using RF transmitter and receiver

Charts

S.No	Title of the Chart
1	Architecture of 8085 Processor
2	Instruction set of 8085 Processor
3	Interfacing peripherals 8255A, 8257
4	Interfacing Peripherals 8279,8259
5	PCM Transmitter and receiver
6	AM Receiver Characteristics
7	Sampling and hold circuit
8	Architecture of TMS320C54 Processor

5.8.4. Consultancy (from Industry)(20)

(Provide a list with Project Title, Funding Agency, Amount and Duration)

Funding Amount (Cumulative during last three academic years starting from CAYm1): Amount >10 Lacs – 20 Marks,
Amount ≤10 and ≥ 8 Lacs – 15 Marks,
Amount < 8 and ≥6 Lacs– 10 Marks, Amount < 6 and ≥4 Lacs–5 Marks, Amount < 4 and ≥2 Lacs– 2 Marks,
Amount <2 Lacs – 0 Mark

2017-2018

S.No	Title of Consultancy	Name of Industry/Agency	Faculty in-charge	Amount in lakhs	Period	Status
1	Food safety analyzer: Intelligent Vision Analytics System for defect	Nanolytix Inc., Canada in Collaboration with Vee Technologies	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.P.M.Dinesh	4.5	2017-2018	Ongoing

2015-2016

S.No	Title of Consultancy	Name of Industry/Agency	Faculty in-charge	Amount in lakhs	Period	Status
1	Food safety analyzer: Intelligent Vision Analytics System for	Nanolytix Inc., Canada in Collaboration with Vee Technologies	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.P.M.Dinesh	8.5	2015-2017	Completed
2	To perform pulse plating using Zirconium di boride on copper	Titan Company Ltd	Dr.S.Jayapoorani	1.72	2015-2016	Completed

Continuing education

S.No	Year	Title of the Project	Agency	Coordinators	Grant in Rs
1.	2017	Two Week ISTE-STTP on CMOS, Mixed Signal And Radio Frequency VLSI Design	National Mission on Education through ICT(MHRD,Govt. of India)	Dr.G.Ravi	65,289
2	2015-2016	National Level workshop on "LabVIEW for Machine Learning of Images"	IETE – New Delhi	Dr.R.S.Sabeenian Prof.T.Shanthi & P.M.Dinesh	25,000
3	2015	AICTE-INAE Distinguished Visiting Professorship Scheme	AICTE & INAE	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.P.M.Dinesh	DA ,TA & Honorarium of expert member funded by AICTE & INAE
4	2014	AICTE-INAE Distinguished Visiting Professorship Scheme	AICTE & INAE	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.P.M.Dinesh	DA ,TA & Honorarium of expert member funded by AICTE & INAE
5	2014	National Level Workshop on Translation of Research in Image Processing to Clinical Image Based Diagnostic Procedures	IETE – New Delhi	Dr.R.S.Sabeenian Prof.T.Shanthi	50,000

	2014	Two Week ISTE Main Workshop on Control System	National Mission on Education through ICT(MHRD,Govt. of India)	Dr.B.T.Thiyaneswaran	96,995
6	2013	Recent Advancement & future scope of Research in Image Processing	AICTE FDP	Dr.R.S.Sabeenian and Team	4,50,000
7	2013	National Conference on Communication Signal & Image Processing NCCSIP'13 on 12.04.2013	IETE – New Delhi	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.T.Shanthi	50,000
8	2012	Workshop on "Research Opportunities for Digital Image Processing in today's Scenario"	IETE – New Delhi	Dr.R.S.Sabeenian Prof.M.E.Paramasivam & P.M.Dinesh	15,000
9	2012	FDP on "Digital Signal Processing"	Anna University-Chennai	Dr.R.S.Sabeenian	70,000

S.No	Period	Title	Co-ordinators	Amount in Rs
1	19.5.18 to 27.5.18	Python Programming	Dr.R.S.Sabeenian Dr.K.R.Kavitha Prof.M.Jamuna Rani Dr.N.Sasirekha Dr.S.Jayapoorani	1,28,400
2	13.12.2017 to 29.12.2017	Engineering application using LAB view and CLAD certification	Prof. EldhoPaul P.M.Dinesh	1,45,000
3	20.10.17, 21.10.17	Two days hands on training on Embedded and IOT	Prof. S.Deepa Dr.K.R.Kavitha Prof .T.Shanthi	23,100
4	13.10.17	Hands on training o DSP Processor, ARM Processor and	Dr.K.R.Kavitha Dr.N.Sasirekha Prof M.Senthil Vadivu	12,600

		IOT		
5	18.9.17 to 3.10.17	PCB Design	Prof A.Ayubkhan Prof.S.Sree Southry	9,000
6	11.9.2017 to 29.9.2017	Basic C Programming in Continuous Time and Discrete Time signals using GNURADIO	R.Anand P.M.Dinesh	21,750
7	29.05.2017 to 03.06.2017	Digital Image Processing using Open CV & Python	Dr.R.S.Sabeenian Prof.M.E.Paramasivam Prof.P.M.Dinesh	27,000
8	05.6.17 to 10.6.17	PCB Design and Fabrication	Prof.S.Sree Southry Prof A.Ayubkhan	34,000

5.9 Faculty Performance Appraisal and Development System (FPADS)

The appraisal form consists of various parameters to evaluate a faculty in all the aspects

The parameters are described in the following table.

Performance Evaluation for the period of June 2013 - June 2014					G1 (< 5 Years)	G1 (> 5 Years)	G2 (< 5 Years)	G2 (> 5Years)	G3 (< 5Years)	G3 (> 5 Years)
					G1 - A	G1 - B	G2 - A	G2 -B	G3 - A	G3 -B
FACTOR 1 - TEACHING (F1)					**65**	**60**	**55**	**50**	**45**	**40**
Tutoring (F1 - S1)					40	35	30	25	25	20
S1a - Lecture	**Courses Odd /Even**	**No of Classes Allotted / Semester**	**No. of Class Conducted**	**% of Classes Handled**	20	17.5	15.0	12.5	12.5	10
				100%	20	17.5	15.0	12.5	12.5	10
				<100%	0	0.0	0.0	0.0	0.0	0
S1b - Results	**Courses Theory Odd/ Even**	**Course / Branch / Sem / Sec**	**No. of Students App/ Passed**	**Overall Pass %**	15	15	10	10	5	5
				91-100%	15	13.1	11.3	9.4	9.4	7.5
				81- 90 %	13	11.4	9.8	8.1	8.1	6.5
				71- 80 %	10	8.8	7.5	6.3	6.3	6.5
				< 71 %	3.0	3.0	2.0	2.0	1.0	1
S1c - Feedback	**Courses Odd /Even**	**Course / Branch / Sem / Sec**	**Feedback Grades**	**Range**	5	4.4	3.8	3.1	3.1	2.5
				85 % and Above	5	4.4	3.8	3.1	3.1	2.5
				75 - 84 %	3	2.6	2.3	1.9	1.9	1.5
				60 - 74 %	2	1.8	1.5	1.3	1.3	1

				< 60 %	0	0	0		0	0	0

Training (F1 - S2)					10	10	10	10	10	10	
S2 - Training	**Topic of training Programme**	**Duration**	**Attended / Organized**	**Range**							
				Min. 1 Progrmme per Semester, Max. considered is 2 Nos., (2 * 5 = 10 points)							
Curriculam Development (F1 - S3)					10	10	10	10	5	5	
1.Innovation in Teaching & Sharing Other best practices **(Evaluated by HODs between (0 - 4) or (0 -2))**					4	4	4	4	2	2	
2.Authored a course material or Lab manual **(Evaluated by HODs between (0 - 4) or (0 -2)**					4	4	4	4	2	2	
3.Development of Teaching Aids **(Evaluated by HODs between (0 - 2) or (0 -1))**					2	2	2	2	1	1	
Professional Development (F1 - S4)					5	5	5	5	5	5	
1. Membership in Professional bodies **(Min. 1 Membership can be granted 2.5)**					2.5	2.5	2.5	2.5	2.5	2.5	
2. Any value added courses conducted for the students **(Evaluated by HODs between 0 - 2.5)**					2.5	2.5	2.5	2.5	2.5	2.5	
FACTOR 2 - RESEARCH DEVELOPMENT (F2)					**10**	**10**	**15**	**15**	**20**	**20**	
1.Publication : Title of the paper ,Type,Volume,Issue page No,Year, (**Int.Conf. / Max. considered is one with 2 Points) (National Journal with IF >=1 / Max. considered is three with each 2 points) (Int.Journal with IF >=1 / Max. considered is two with**					6	6	6	6	6	6	

each 3 points)						
2.Book Published authored or edited (Max Considered is one with 1/2.5/3 Point)	1	1	2.5	2.5	3	3
3.Patents Applied/ Patents Received (Max Considered is one with 1/2.5/5 Point)	1	1	2.5	2.5	5	5
4.Grants Received (Max Considered is one with 2/4/6 Point)	2	2	4	4	6	6
FACTOR 3 - STUDENT DEVELOPMENT (F3)	**10**	**10**	**10**	**10**	**5**	**5**
1. Industrial Projects / Research Projects assigned and completed with student's participation **(Evaluated by HODs between (0 - 3) or (0-2))**	3	3	3	3	2	2
2. Training the students towards industry expectation **(Evaluated by HODs between (0 - 3) or (0-2))**	3	3	3	3	2	2
3. Mentoring the students on organizational values and ethics **(Evaluated by HODs between (0 - 4) or (0-1))**	4	4	4	4	1	1
FACTOR 4 - INDUSTRY ACADEMIA INTERACTION (F4)	**5**	**10**	**10**	**15**	**15**	**20**
1. Consultancy work carried out with Industries **(Evaluated by HODs between (0 - 2.5) or (0 -5) or (0-10)**	2.5	5	5	10	10	10
2. Inviting Industry experts to campus for special lectures / Mock Interview / Training **(Evaluated by HODs between (0 - 2.5) or (0 -5) or (0-10))**	2.5	5	5	5	5	10
FACTOR 5 - ORGANIZATIONAL OBJECTIVES (F5)	**5**	**5**	**5**	**5**	**10**	**10**
1. Placement efforts **(Evaluated by HODs between (0 - 3) or 0 -6))**	3	3	3	3	6	6
2. Management assigned objectives **(Evaluated by HODs between (0 - 2) or (0 -4))**	2	2	2	2	4	4
FACTOR 6 - ORGANIZATIONAL DISCIPLINE (F6)	**5**	**5**	**5**	**5**	**5**	**5**

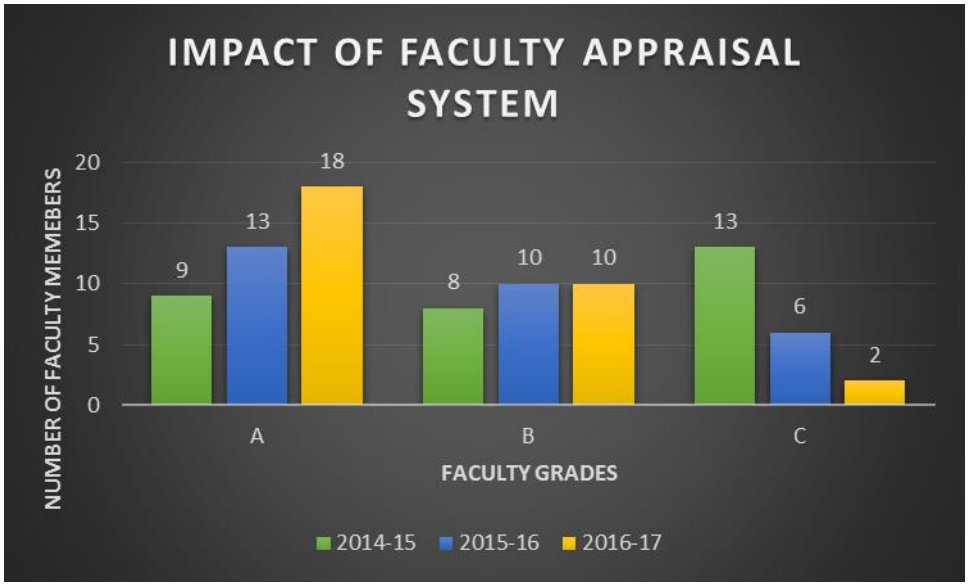
1. Inter personnel behaviors / communication **(Evaluated by HODs between (0 - 2.5))**	2.5	2.5	2.5	2.5	2.5	2.5
2. Attendance / Co-operation **(Evaluated by HODs between (0 - 2.5))**	2.5	2.5	2.5	2.5	2.5	2.5

Impact of faculty appraisal

S.No	Staff Name	Designation	2013-14		2014-15		2015-16		2016-17	
			Avg	Gr	Avg	Gr	Avg	Gr	Avg	Gr
1	Dr. R.S. Sabeenian	Professor	91.17	A	97.92	A	97.87	A	95.73	A
2	Dr. R. Vinod Kumar	Professor	77.66	C	69.60	C	75.25	C+	81.39	B
3	Prof. J.P. Senthil Kumar	Associate. Prof	67.32	C	72.73	C	74.49	C+	78.86	C+
4	Prof. S. Deepa	Associate. Prof	76.36	C	84.42	B	91.95	A	91.95	A
5	Dr. K.R. Kavitha	Associate. Prof	74.29	C	83.64	B	91.17	A	94.03	A
6	Dr. N. Sasirekha	Associate Professor	86.49	B	97.66	A	91.87	A	91.69	A
7	Prof. J. Harirajkumar	Associate Professor	83.12	B	95.58	A	90.91	A	91.95	A
8	Ms. M. Jamuna Rani	Asst. Professor Sr. G	67.79	C	77.66	C	76.62	C+	90.91	A
9	Ms. T. Shanthi	Asst.Professor Sr. G	74.55	C	72.47	C	84.68	B	97.40	A
10	Dr. K. Anguraj	Asst.Professor Sr.G	69.61	C	86.49	B	92.34	A	90.39	B
11	Dr . S. Jayapooran i	Asst.Professor	65.71	C	87.27	B	80.61	B	93.25	A
12	Dr. G. Ravi	Asst.Professor	85.97	B	95.58	A	91.61	A	94.55	A
13	Ms. P. Priya	Asst.Professor	80.26	C	91.95	A	92.73	A	89.87	B
14	Dr. S. Vijaya Lakshmi	Asst.Professor	70.91	C	82.86	B	92.99	A	93.04	A
15	Ms. K. Manju	Asst.Professor	64.94	C	74.23	C	78.13	C+	82.44	B
16	Ms. M. Senthil Vadivu	Asst.Professor	76.36	C	83.38	B	87.01	B	94.55	A
17	Ms. T. Prema Kumari	Asst.Professor	NA	NA	70.65	C	86.39	B	87.12	B
18	Ms. A. Sangeetha	Asst.Professor	72.47	C	85.19	B	88.36	B	92.47	A
19	Dr. B. Thiyaneswaran	Asst.Professor	73.51	C	93.77	A	92.21	A	93.77	A

20	Mr. M.E. Paramasivam	Asst.Professor	74.03	C	67.27	C	91.09	A	93.77	A
21	Ms. V. Meenakshi	Asst.Professor	82.86	B	94.55	A	87.79	B	90.13	B
22	Mr. S. Sree Southry	Asst.Professor	75.58	C	80.00	C	87.22	B	90.96	A
23	Mr. N.S. Yoganathan	Asst.Professor	80.00	C	75.58	C	72.47	C+	82.60	B
24	Ms. D.P. Sangeetha	Asst.Professor	67.53	C	69.30	C	76.10	C+	84.94	B
25	Ms. M. Susaritha	Asst.Professor	73.25	C	76.68	C	84.36	B	89.61	B
26	Ms. A. P. Jaya Krishna	Asst.Professor	77.66	C	81.04	B	86.44	B	95.06	A
27	Mr. A. Ayub Khan	Asst.Professor	80	C	79.22	C	85.35	B	76.10	C+
28	Mr. P.M. Dinesh	Asst.Professor	89.87	B	93.77	A	93.30	A	95.64	A
29	Ms. S. Vijayashaarathi	Asst. Professor	78.18	C	95.06	A	92.39	A	91.12	A
30	Mr. A.B. Ahadit	Asst. Professor	NA	NA	NA	NA	NA	NA	88.31	B
31	Ms. V. Geetha Lakshmi	Asst. Professor	65.19	C	77.40	C	NA	NA	NA	NA

90.32% of the Faculty members have shown their improvement due to this appraisal system.



5.10. Visiting/Adjunct/Emeritus Faculty etc.

(2017-18)

Name	S.no	Time	Subject title	Date	No. of hours	Total hour
Prof. K.N. Suryanarayanarao	1.	9.30 am - 4.00 pm	RF & Microwave Communication Fundamentals, Design & Application	5.6.2017 to 6.6.2017	10	51
	2.	12.30 pm - 5.30 pm	Recent Trends in Microwave and Antenna Technology	29.06.2017	5	
Dr.Simarjeet saini	1.	9.00 am to 10.30 am	Transmission lines and wave guides	4.09.2017 to 27.09.2017	36	

(2016-17)

Name	S.no	Time	Subject title	Date	No. of hours	Total hour
Prof.K.N.Suryanarayanarao	1.	9.30 - 4.00 pm	-RF and Microwave Integrated Circuits	08.08.2016 to 09.08.2016	10	50
	2.	9.30 - 4.00 pm	- Radio networks and WCDMA	04.05.17 to 05.05.2017	10	
Dr.Simarjeet saini	3.	9.00 am to 10.30 am	Engineering Electromagnetic	13.03.2017 to 01.04.2017	30	

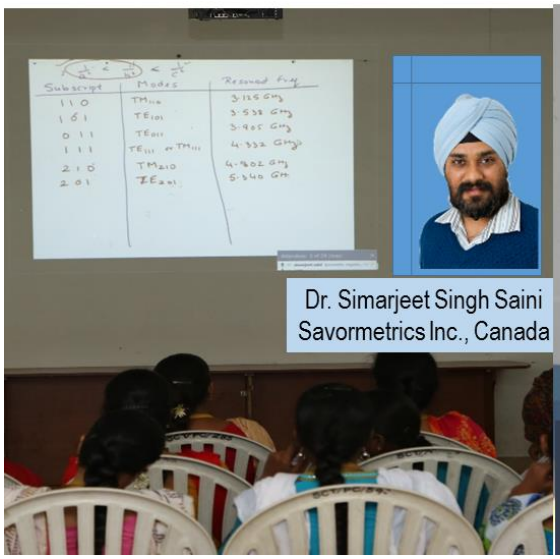
(2015-16)

Visiting/Adjunct/Emeritus Faculty Name	S.no	Timing	Title	Date	No.of hours	Total hour
Prof.K.N.Suryanarayanarao	1	9.30 - 4.00 pm	Software defined Radios	23.02.2016	5	110
	2	10.00 - 4.00 pm	Recent research in OFDM technology	23.06.2016	5	

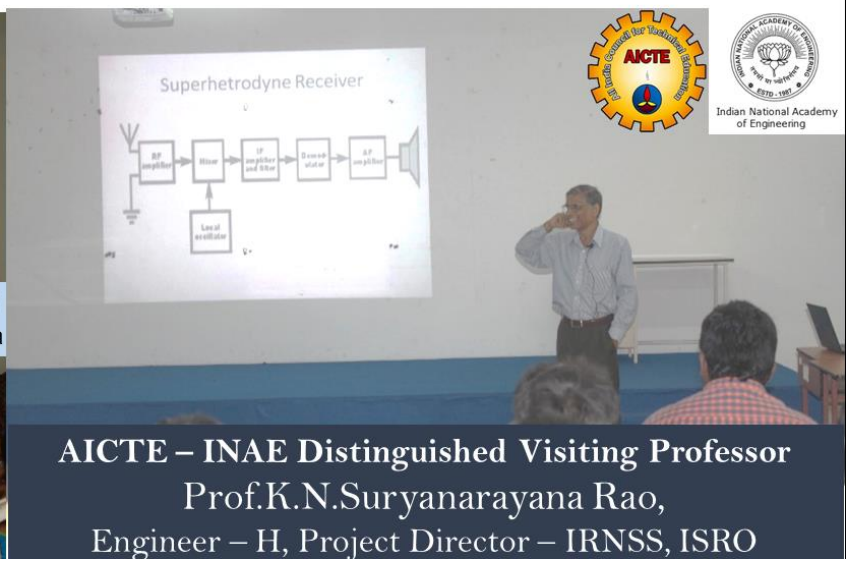
	3	9.30 - 4.00 pm	Communications satellite and Radio broadcasting	6.07.2016 to 7.07.2016	10	
Dr.Vijayaragavan Viswanathan	4	2.00 PM to 5.00 PM	Microcontroller	25/04/15	69 hrs	
	5		Microcontroller	02/05/15		
	6		Microcontroller	07/05/15		
	7		Microcontroller	16/05/15		
	8		RFID	08/06/15		
	9		RFID	09/06/15		
	10		RFID	10/06/15		
	11		Sensors	16/06/15		
	12		Sensors	22/06/15		
	13		Sensors	23/06/15		
	14		Sensors	24/06/15		
	15		Raspberry Pi	03/07/15		
	16		Raspberry Pi	09/07/15		
	17		Raspberry Pi	11/07/15		
	18		Raspberry Pi	21/08/15		
	19		Embedded C	22/08/15		
	20		Embedded C	04/09/15		
	21		Embedded C	12/09/15		
	22		Embedded C	20/09/15		
	23		SPI coding	23/09/15		
	24		SPI coding	24/09/15		
	25		SPI coding	30/09/15		
	26		SPI coding	02/11/15		
	27		SPI coding	11/01/16	21 hrs	
	28		Big Data analysis	12/01/16		
	29		Big Data analysis	13/01/16		
	30		Big Data analysis	20/01/16		
	31		Prototype Development	03/02/16		
	32		Prototype Development	03/03/16		
	33		Prototype Development	04/03/16		

TEACHING METHODOLOGY

ONLINE LIVE LECTURE



INDUSTRY DRIVEN GUEST LECTURE



CRITERION 6

FACILITIES AND TECHNICAL SUPPORT

Criterion 6	FACILITIES AND TECHNICAL SUPPORT	80

6.1 ADEQUATE AND WELL-EQUIPPED LABORATORIES, AND TECHNICAL MANPOWER (40)

S.No	Name of the Laboratory	No. of Students Per Setup (batch Size)	Name of the Important Equipment	Weekly Utilization Status (all the Courses for which the lab is Utilized)	Technical manpower support		
					Name of the Technical Staff	Designation	Qualification
1.	Electronics Lab& Digital IC Lab	3(48)	1. Cathode Ray Oscilloscope - (0-30MHz) 2. Function Generator with power supply -(0-3MHz) 3. Single/Dual /Tracking power supply 4. Digital IC Trainer with power supply	ODD Semester: 35hours Even Semester:36 hours	V. Velu	Lab Technician	DEEE
5.	Linear Integrated Circuits lab	3(48)	1. Cathode Ray Oscilloscope (0-30MHz) 2. Function	ODD Semester: 30 hours Even Semester: 27 hours	R. Yuvaraj	Lab Technician	B.E

			Generator with power supply - (0-3MHz) 3. Single/Dual /Tracking power supply				
6.	Digital Image Processing Lab	3(24)	1. NI LabVIEW 2. Smart Camera - 01 3. DAQ unit – 10 4. MATLAB 2017b(50 Tool Boxes)	ODD Semester & Even Semester: Full Utilization (39 hours)	D.Dhanalakshmi	Lab Assistant	ITI, BCA
7.	Optical & Microwave Lab	4(24)	1. Microwave power meter 2. Klystron power supply and oscillators 3. Gunn power supply &oscillator 4. Microwave components	ODD Semester: 18 hours Even Semester: 24 Hours	E.Alex Sundarraj	Lab Technician	DECE., (BE)

			5. VSWR meter 6. OTDR 7. Optical LED & Laser 8. Optical power meter				
9.	VLSI Lab	2(50)	1. ALTERAQuartus II software 2. DE01 – FPGA Kit 3. Mentor graphics 4. Xilinx software 14.1 5. Xilinx Spartan FPGA kit	ODD Semester & Even Semester: Full Utilization (39 hours)	B.Balaji	Lab Technician	ITI,DCA (B.Com)
6.	Digital Signal Processing Lab	2(50)	1. TMS 320 C5416 Kit, 2. Digital Storage Oscilloscope 60 MHz, 3. MATLAB 2017b (50 Tool boxes) 4. NetSIM, LT01 Kit	ODD Semester & Even Semester: Full Utilization (39 hours)	C.Manikandan	Lab.Technician	I.T.I, D.C.H.N.A, MBA
5.	Communication Lab	3(24)	1. Digital StorageOscilloscope 70MHz 2. CRO -30MHz	ODD Semester: 18 hours Even Semester: 24 hours	J.Soundappan	Lab Technician	DECE, BE

			3. Function Generator - 3MHz 4. Digital Communication Trainer kits 5. ATS(Antenna Training Systems)-850MHz 6. Network analyzer - 1.5GHz 7. Spectrum analyzer-1.5GHz 8. Vector Signal Generator – 1GHz 9. Mixed Signal Oscilloscope – 100MHz 10. RF Signal Generator – 150 - 300MHz.				
11.	Microprocessor Lab	4(50)	1.8085 kits, 8086 kits 2. 8051 kits 3. Interfacing boards for	ODD Semester: 18 hours Even Semester: 21 hours	P.Selvakumar	Lab Technician	DEE

			8085 kits & 8086 kits. 4. ARM Processor kit.				
12.	Project / Research Lab	2(40)	1. Antenna Training Systems 2. Digital Storage Oscilloscope 3. Vector Network Analyzer 4 GHz 4. Micro strip and Patch Antennas 5. FPGA Kit 6. MATLAB 2017b(50 Tool Boxes) 7. ZigBee modules 8. Arduino board 9. Raspberry Pi 10.Raspberry Pi trainer kit 11.Intel Galileo board 12. Triple axis accelerometer 13.GSM module	ODD Semester & Even Semester: Full Utilization (39 hours)	T. Karthik	Lab Technician	BE

			14.Wi-fi module				
13.	Embedded System Lab	3(24)	1. Microcontroller Ultra – Low power MSP430 MSP-EX430F5438 2. Tiva C series development board 3. MSP 430F5529 4. C2000 Piccolo LAUNCHXL-F28027 5. Sensor Hub Booster pack 6. CC2650 Sensor Tag 7. Intel Galelio Gen2 Board	ODD Semester & Even Semester: Full Utilization (39 hours)	T. Karthik	Lab Technician	BE

ADDITIONAL FACILITIES CREATED FOR IMPROVING THE QUALITY OF LEARNING EXPERIENCE:

1. Teaching aids– chalk/white-board, multimedia projectors, etc.

S NO	TEACHING AIDS	QUANTITY
1	Chalk board	1-no in each class room
2	Multimedia projectors	14 Nos
3	Overhead projectors	2 Nos
4	Learning resources (NPTEL, CD's)	One for each course
5	Lecture Capture System(LCS)	7 class rooms
6	Black Board LMS	For all the students
7	CISCO CEED BOX	2 Nos

2. Acoustics, classroom, conditions of chairs/benches, air circulation, lighting exits, ambiance, and such other amenities/facilities

3.

ROOM DESCRIPTION Class Room Number	**CONDITIONS OF CHAIRS AND BENCHES**	**AIR CIRCULATION, LIGHTING, EXITS, AMBIANCE**
911	In good condition	• All the doors and windows in the rooms are located to allow maximum daylight and provide good cross ventilation. • All the doors are sufficiently wide and available in adequate numbers, to evacuate people inside in case of emergency • The buildings are designed by professional architects, who give utmost care in providing academic ambiance in all the rooms.
912		
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936		
Dr.A PJ.Abdul Kalam Conference/Seminar Hall		

Availability of individual faculty rooms

Room Description			Usage	Shared/ Exclusive	Capacity	Rooms Equipped with
Hall No.	Size (Sq m)	No of Rooms				
I Floor	33.94	3	Faculty Rooms (Cabins)	Exclusive	2	Fans, lights, PC with internet, Book Rack
II Floor	30.72	3	Faculty Rooms (Cabins)	Exclusive	2	Fans, lights, PC with internet, Book Rack.
II Floor	152.58	2	Faculty Rooms (Cabins)	Exclusive	8	Fans, lights, PC with internet, Book Rack, & Pantry
III Floor	152.58	2	Faculty Rooms (Cabins)	Exclusive	5	Fans, lights, PC with internet, Book Rack, & Pantry
Third Floor	23.27	1	HOD Room	Exclusive	1	PC, Internet, Book rack, tables, Chairs, Fans, Lights and A/C
Ground Floor(R&D Center)	105	1	Faculty Rooms (Cabins)	Exclusive	4	Fans, lights, PC with internet, Book Rack

4. Additional facilities created for the students:

S No	Facility Name	Details	Reasons for creating facilities	Utilization	Areas inwhichstudents are expected toutilize
1.	Internet Facility	Bandwidth 100 Mbps (1:1 ILL) (Airtel 50 Mbps Tata 50 Mbps)	Self-learning /Seminars /Presentations /Solve assignments, documentation	Unlimited	Courses specified in Curriculum, LCS and Black board LMS
2.	Printed Circuit Board laboratory	Table top driller, etching machine, UV exposure, art work film maker, curing & sharing machine	Manufacturing of printed circuit boards	As needed	Industry oriented training
3.	EDUSAT training	Technical videos by experts	To enhance student knowledge	As needed	Courses specified in Curriculum
4.	Tutorial Classes	Conducted for analytical courses	To improve problem solving skills for the students	As needed	Subjects opted by students
5.	Department Library	Program Specific text books and reference books(3516), previous year question paper, Career guidance	To provide additional support for students	As needed	Courses specified in Curriculum

6.	Digital Library	IEEE Xplore Science direct	Books, Technical books, Journals, previous year question paper, power point presentations, Video lectures, Access to IEEE Xplore	As needed(IP Based access to students inside the campus)	Courses specified in Curriculum
7.	Surveillance Cameras	IP cameras	To enhance the security of the department	21 Nos.	Security purpose
8.	Television	Smart LED TV	To display the current events and achievements of the college	12 No's	Display the current activities and achievements.
9.	Lift	10 passengers, 680 Kg	For differently abled students	For regular usage	To ensure that the differently abled students access the campus hassle free
10.	Ramp/wash rooms/ wheel Chair	Each one			
11.	Lecture Capturing System Server	7 Dahua IP cameras and 12 servers	To record lectures handled in the classrooms	Unlimited	Review the recorded lectures and henceforth provide access to

	Room				students such that they can refer to the class anytime and anywhere
12.	Cisco Education Enabled Development (CEED) BOX	CEED 3700	To enable teaching and learning process	02	Cisco Education Enabled Development is a comprehensive integrated and open learning platform. Designed to leverage collaboration and live content video to enable teaching and learning.
13.	VLSICOMM R&D Centre	Mentor Graphics & Xilinx	For research work	As needed	VLSI and Communication Systems
14.	SIPRO – R&D Centre	MATLAB2017b, LabVIEW and NI flexrio, Smart Camera -02 Matrox Imaging Digital Camera – 01 Handy camera -01 Scanner - 01	For research work	As needed	Signal and Image Processing

6.2 Laboratories maintenance and overall ambiance(10)

Maintenance of Laboratory Equipment

1. Service and maintenance of equipment is carried out regularly.
2. Breakdown register is maintained in the laboratories.
3. Minor repairs are carried out by the technical staff of the department based on available resources and expertise.
4. Major repairs are outsourced by following the procedure of the Institute.
5. Dead stock register is maintained in laboratories.

Overall Ambiance

1. Department has sufficient number of laboratories which is used throughout the year on a periodic time line basis to meet the curriculum requirements and based on requirements of the students.
2. Necessary furniture for students is provided in each laboratory. Based on the requirement, the students utilize them in the laboratories.
3. Laboratories are equipped with sufficient equipment to conduct the experiments.
4. Laboratory manuals contains information on vision, mission, PEO, PO, PSO, safety precautions, equipment handling instructions along with the details of the experiments are distributed to students well in advance.
5. UPS facility is available in all the laboratories.
6. Lighting system is very effective, along with the natural light in every laboratory.
7. All the laboratories are equipped with white/chalk board, computer, Internet, and other such teaching-learning aids.
8. The Department has a couple of funded research laboratories. Students and faculty members are always encouraged to carryout research in these exclusive research laboratories. However, the research work is not constrained only to these laboratories.
9. Lecture Capture System (LCS), MOODLE and Blackboard LMS are used for the enhancement of teaching learning process.

10. Every laboratory has a dedicated technical staff resource. It is ensured that the deputed technical staff has sufficient skills for handling the equipment and software pertaining to that particular laboratory.
11. Separate student innovative corridor is available in the department for the purpose of mini project and projects.

S.No	Curriculum Lab Description	Exclusive/Use /Shared	Space, Number of Students	Number of Experiments	Quality of instruments	Lab manuals
1.	Electronics and Digital IC Lab	Shared	213 Sq m,50	15	In Good Condition	Available
2.	Linear integrated Circuits lab	Shared	180.3 Sq m,50	15		Available
3.	Digital Signal Processing Lab	Exclusive	180.3 Sq m,50	15		Available
4.	Communication Lab	Exclusive	115 Sq m,25	15		Available
5.	Digital Image Processing Lab	Exclusive	66 Sq m,25	15		Available
6.	VLSI Lab	Shared	90.4 Sq m,25	15		Available
7.	Microprocessor Lab	Exclusive	253 Sq m,50	15		Available
8.	Optical & Microwave Lab	Shared	115 Sq m, 25	15		Available
9.	Embedded System Lab	Exclusive	75 Sq m, 25	15		Available
10.	Project/Research Lab	Exclusive	115 Sq.m,40	Not applicable		
11.	Student innovative corridor	Exclusive	200 Sq.m,50	Not applicable		

6.3. Safety measures in laboratories (10)

S No.	Name of the laboratory	Safety measures
1.	Electronics Lab & Digital IC Lab	1. Specific safety rules for students displayed. 2. First aid box and fire extinguisher are kept in the laboratory. 3. Avoid the use of condemned equipment and provides needful equipment and components. 4. Periodical servicing of the lab equipment. 5. Maintain a clean and organized laboratory. 6. Avoid the use of cell phones. 7. Appropriate storage areas.
2.	Linear integrated Circuits lab	1. Specific safety rules for students displayed. 2. First aid box and fire extinguisher are kept in the laboratory. 3. Avoid the use of condemned equipment and provides needful equipment and components. 4. Periodical servicing of the lab equipment. 5. Maintain a clean and organized laboratory. 6. Avoid the use of cell phones. 7. Appropriate storage areas.

3.	Digital Signal Processing Lab	1. Specific safety rules for students displayed. 2. First aid box and fire extinguisher are kept in the laboratory. 3. Periodical servicing of the lab computers. 4. Maintain a clean and organized laboratory. 5. Avoid the use of cell phones. 6. Appropriate storage areas.
4.	Communication Lab	1. Specific safety rules for students displayed. 2. First aid box and fire extinguisher are kept in the laboratory. 3. Avoid the use of condemned equipment and provides needful equipment and components. 4. Periodical servicing of the lab equipment. 5. Maintain a clean and organized laboratory. 6. Avoid the use of cell phones. 7. Appropriate storage areas.
5.	Digital Image Processing Lab	1. Specific safety rules for students displayed. 2. First aid box and fire extinguisher are kept in the laboratory. 3. Periodical servicing of the lab equipment. 4. Maintain a clean and organized laboratory. 5. Avoid the use of cell phones. 6. Appropriate storage areas.
6.	VLSI Lab	1. Specific safety rules for students displayed. 2. First aid box and fire extinguisher are kept in the

		laboratory. 3. Periodical servicing of the lab equipment. 4. Maintain a clean and organized laboratory. 5. Avoid the use of cell phones. 6. Appropriate storage areas.
7.	Microprocessor Lab	1. Specific safety rules for students displayed. 2. First aid box and fire extinguisher are kept in the laboratory. 3. Avoid the use of damaged equipment and provides needful equipment and components. 4. Periodical servicing of the lab equipment. 5. Maintain a clean and organized laboratory. 6. Avoid the use of cell phones. 7. Appropriate storage areas.
8.	Optical & Microwave Lab	1. Specific safety rules for students displayed. 2. First aid box and fire extinguisher are kept in the laboratory. 3. Avoiding the use of condemned equipment and provides needful equipment and components. 4. Periodical servicing of the lab equipment. 5. Maintain a clean and organized laboratory. 6. Avoid the use of cell phones. 7. Appropriate storage areas.
9.	Embedded System Lab	1. Specific safety rules for students displayed. 2. First aid box and fire extinguisher are kept in the

		laboratory. 3. Avoiding the use of condemned equipment and provides needful equipment and components. 4. Periodical servicing of the lab equipment. 5. Maintain a clean and organized laboratory. 6. Avoid the use of cell phones. 7. Appropriate storage areas.

6.4. Project laboratory (20)

- Student innovative corridor and Project/Research lab are utilized by the students for their projects.
- Discussions and implementations of innovative ideas about mini projects and final year projects are carried out in innovative corridor.
- Project/Research lab is exclusively for the research and project work with the hardware and software facilities listed below:

Hardware Facilities

Sl. No	Name of the Equipment's
1.	USB PIC Programmer Kit
2.	PIC 16F877A IC
3.	PIC 16F877A Board
4.	Alarm Clock add- on card, Elevator Controller, Modern Train Controller

5.	TGS Sensors Set
6.	5Million SPARTAN – 3E Board
7.	DSP-in-VLSI Trainer (Xilinx FPGA - SPARTAN)
8.	DSP IC 16 Bit Micro Controller Kit
9.	AVR Micro Controller Board
10.	FPGA Multifunction Evaluation Kit
11.	Digital IC trainer
12.	Cranes Software DSP Kit
13.	Scientific 3MHz Function Generator Supply Model SM5776
14.	DSO 25MHz & 100MHz
15.	Advance Fiber Optic Communication Trainer Link: LINK – B
16.	Fiber Optic Video Link with CCD Camera Monitor & Fiber Optic Link
17.	ATS – 03, Antenna Training System with GPS Trainer Kit
18.	Micro strip Antenna Trainer, ATS – MICRO
19.	GPS Trainer Kit (GPS – 04)
20.	Fourier Synthesis Kit (ACL – 07)

21.	Noise Power Spectral Density Kit (ACL -05)
22.	RFT – B, Basic RF Communication Trainer
23.	TLT – B, Basic Transmission Line Trainer
24.	CDMA – 02 CDMA Mobile Communication Trainer
25.	Agilent N9923 – 104, 4GHz Field Fox Handheld RF Vector Network Analyzer
26.	ZigBee modules
27.	Arduino board
28.	Raspberry Pi, Trainer kit
29.	Intel Galileo board
30.	Triple axis accelerometer
31.	GSM module
32.	Wi-fi module

Software Facilities

S.No	Software Name	Utilization
1.	Mentor Graphics HEP Category I (IC Design) & Category II (IC Design & Verification Test)	50 Users
2.	Xilinx – System Edition Ver. 14.1	25 Users
3.	Model Sim 10.1	50 Users
4.	Code Composer Studio V 3.1	'N' Users
5.	ADS – 2014 (Advanced Design System)	5 Users
6.	Lab VIEW 2012	Academy License
7.	MATLAB 2017b	TAH
8.	Quartus II	37 Users
9.	OrCAD	5 Users
10.	MultiSim	5 Users

CRITERION 7

CONTINUOUS IMPROVEMENT

7.1. Action taken based on the results of evaluation of each of the COs, POs & PSOs (30)

Identify the areas of weaknesses in the program based on the analysis of evaluation of COs, POs &PSOs attainment levels. Measures identified and implemented to improve POs& PSOs attainment levels for the assessment year including curriculum intervention, pedagogical initiatives, support system improvements, etc.

Action taken to be written as per table in 3.3.2

Examples of analysis and proposed action Sample 1-Course outcomes for a laboratory course did not measure up, as some of the lab equipment did not have the capability to do the needful (e.g., single trace oscilloscopes available where dual trace would have been better, or, non-availability of some important support software etc.).

Action taken-Equipment up-gradation was carried out (with details of up-gradation)

Sample 2-In a course on EM theory student performance has been consistently low with respect to some COs. Analysis of answer scripts and discussions with the students revealed that this could be attributed to a weaker course on vector calculus.

Action taken-revision of the course syllabus was carried out (instructor/text book changed too has been changed, when deemed appropriate).

Sample 3-In a course that had group projects it was determined that the expectations from this course about PO3 (like: "to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations") were not realized as there were no discussions about these aspects while planning and execution of the project.

Action taken-Project planning, monitoring and evaluation included in rubrics related to these aspects.

<table>
<tr><td colspan="4">POs Attainment Levels and Action taken for improvement – (2018-2019) CAYm</td></tr>
<tr><td>POs</td><td>Target Level</td><td>Attainment Level</td><td>Observations</td></tr>
<tr><td colspan="4">PO1: Utilize the basic knowledge in mathematics, science and Engineering in Electronics and Communication Engineering field</td></tr>
<tr><td>PO1</td><td>77%</td><td>85.22%</td><td>1. Target achieved
2. Attainment Level need to be improved in 18.5 % of the courses.</td></tr>
<tr><td colspan="4">Action taken
1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.</td></tr>
<tr><td colspan="4">PO2: Identify, formulate and solve the complex problems to achieve demonstrated conclusions using mathematical principles and engineering sciences.</td></tr>
<tr><td>PO2</td><td>77%</td><td>82.53%</td><td>1. Target achieved
2. Attainment Level need to be improved in 14.8 % of the courses.</td></tr>
<tr><td colspan="4">Action taken
1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and</td></tr>
</table>

Lecture capture systems.

4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO3: Design system components that meet the requirement of public safety and offer solutions to the societal and environmental concerns.

PO3	77%	84.71%	1. Target achieved 2. Attainment Level need to be improved in 16.7 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO4: Apply the research – based knowledge to design and conduct experiments, analyze, synthesize and interpret the data pertaining Electronics and Communication Engineering problems and arrive at valid conclusions.

PO4	77%	81.49%	1. Target achieved 2. Attainment Level need to be improved in 14.8 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.

2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO5: Construct, choose and apply the techniques, resources and modern engineering tools required for electronics and Communication Engineering applications.

PO5	77%	81.94%	1. Target achieved 2. Attainment Level need to be improved in 11.11 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO6: Apply the contextual knowledge to assess societal, health, safety and cultural issues and endure the consequent responsibilities relevant to the professional engineering practice.

PO6	77%	77.18%	1. Target achieved 2. Attainment Level need to be improved in 12.9 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.

2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO7: Examine the impact of Engineering solutions in global and environmental contexts and utilize the knowledge for sustained development.

PO7	77%	77.36%	1. Target achieved 2. Attainment Level need to be improved in1.8 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO8: Develop consciousness of professional, ethical and social responsibilities as experts in the field of Electronics snd Communication Engineering

PO8	77%	77.99%	1. Target achieved 2. Attainment Level need to be improved in 1.8 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.

2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO9: Perform effectively as a member / leader in multidisciplinary teams

PO9	77%	87.99%	1. Target achieved 2. Attainment Level need to be improved in 3.7 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO10: Communicate the engineering activities to engineering society to prepare for documentation and presentation.

PO10	77%	80.26%	1. Target achieved 2. Attainment Level need to be improved in 9.2 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.

3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO11: Demonstrate knowledge and understanding of the engineering and management principles to manage projects in multidisciplinary environment

PO11	77%	84.32%	1. Target achieved 2. Attainment Level need to be improved in 16.7 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO12:Demonstrate resourcefulness for contemporary issues and lifelong learning

PO12	77%	83.36%	1. Target achieved 2. Attainment Level need to be improved in 16.7 % of the courses.

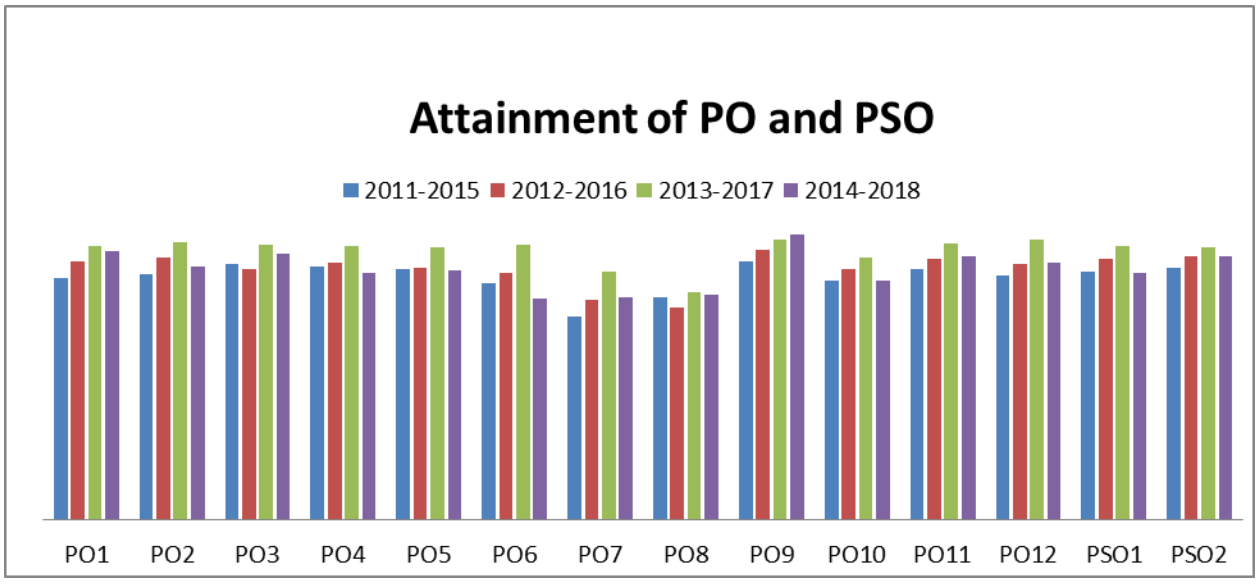
Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.

3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PSOs Attainment Levels and Action taken for improvement – (2014-2018) CAYm

PSOs	Target Level	Attainment Level	Observations
PSO1:Apply the fundamental concepts of Electronics and Communication Engineering to design a variety of components and systems for applications including signal processing, image processing, communication, networking, embedded systems, VLSI and control systems			
PSO1	77%	81.44%	1. Target achieved
Action Taken 1. Teaching Learning tools – Lecture Capture System, Black board, Moodle, etc. 2. Students are motivated to do mini – projects on recent technologies. 3. Set- up embedded laboratory for experimentation models. 4. Students are given technical training for improving their skills.			
PSO2: Select and apply cutting-edge engineering hardware and software tools to solve complex Electronics and Communication Engineering problems			
PSO2	77%	84.27%	1. Target achieved
Action Taken 1. Teaching Learning tools – Lecture Capture System, Black board, Moodle, etc. 2. Students are motivated to do mini – projects on recent technologies. 3. Set- up Embedded laboratory for experimentation models. 4. Students are given technical training for improving their skills.			


Attainment of PO and PSO
2011-2015
2012-2016
2013-2017
2014-2018
PO1
PO2
PO3
PO4
PO5
PO6
PO7
PO8
PO9
PO10
PO11
PO12
PSO1
PSO2

7.2. Academic Audit and Action taken thereof during the period of Assessment (15)

ACADEMIC AUDITING:

Periodical academic audits are conducted based on the ISO standards for the Teaching Learning Process, and other departmental activities. The audits are then evaluated by the Department Level and Institutional Level Committees. Generally, the academic audit is a twofold system comprising of Internal and External Audits.

Objectives of Academic Auditing:

- To ensure that the teaching-learning process is carried out effectively in the department because of which, there is a measurable improvement in the POs and COs attainment.
- To maintain the quality of teaching learning process, the evaluation approaches (with specific focus on question papers) is carried out in the department based on Bloom's Taxonomy.
- Sample based screening of evaluation of CIE answer scripts thereby ensures the maintenance of quality in the teaching-learning process.

Audit of Teaching-Learning Process:

The detail of various academic activities in the form of documents given below has to be maintained by the entire faculty. These documents shall be made available to the external auditor as and when required.

- Students Name list
- Timetable
- Syllabus
- Course Plan and Course Delivery details
- CO-PO mapping
- Attendance details
- CIE Test mark entry(including retest)

- Result details(CIE) and Action Taken Report
- Assignment / Quiz / Seminar details and marks
- Beyond Syllabus (topics, notes and questions asked in CIE tests)
- CO assessment and attainment details (based on CIE tests)
- Counselling records
- Hand-outs / Study guide / Question Bank given to students
- Support for toppers / Fast learners
- Remedial Classes records / Support for Slow learners
- Study guide / Notes / Question bank / Blackboard materials / Hand-outs
- Lab experiments / machine assignments related to the course
- Questions and problems for discussion in the classroom
- Home assignments / Home work details
- Tutorial Class details
- Industry mentor details
- Guest lecture arranged by the faculty
- Completion certificate for MOOC courses (NPTEL/Coursera etc.) of the faculty
- Course End Survey
- Minutes of the course committee meetings
- LCS – Class room – How many students benefited details
- Hands on training given additionally
- List of Experiments
- Sample records
- Lab Manual (Whether Lab Manual is as per the syllabus)
- Quality of the Lab Manual
- Quality of Experiments
- Mid-semester: Quality of Question Paper

For PROJECT WORK / MINI PROJECT / INTERNSHIP

- Projects groups and topics details
- Review details and marks
- Industry / Research organization feedback
- Project outcomes (details of patents/publications/industry collaboration etc.)

Project Coordinators:

2015-2016	2016-2017	2017-2018
Dr.B.Thiyaneswaran	Dr.B.Thiyaneswaran	Dr.R. Vinod Kumar
		Prof.S..Deepa
		Prof.T.Shanthi
		Prof.P.Vivek Karthick
		Prof.Eldho Paul
		Prof.R.Anand

Core team Members:

2015-2016	2016-2017	2017-2018
Dr.R. Vinod Kumar	Dr.R. Vinod Kumar	Dr.R. Vinod Kumar
Dr. D.Jayanthi	Prof. M.Jamuna Rani	Prof. M.Jamuna Rani
Prof. M.Jamuna Rani	Prof. M.Senthilvadivu	Prof. M.Senthilvadivu
Prof.J.Harirajkumar	Prof. M.Susaritha	Prof. M.Susaritha
	Prof.J.Harirajkumar	Prof.J.Harirajkumar

Internal Audit members:

2015-2016	2016-2017	2017-2018
Mr.A.Velsamy/MBA	Ms.N.Vadivu/H&L	Ms.A.K.Elavarasi /CSE
Mr.C.Sureshkumar/IT		

Audit of Evaluation Process and Outcomes:

The process of Academic Auditing intends to monitor and enhance the quality of internal evaluation process through proper guidelines. Periodical suggestions are also sought from auditing team members thereby ensuring a fair and quality based internal evaluation to take place.

The auditing team will check

- Question Paper Quality, 40% HoT
- Bloom's Taxonomy
- Coverage of Syllabus in the Question Paper
- Sample answer scripts (photocopies)(Best and Average) with copies of Question Papers

The focus of the internal / external auditing team would be to ensure that

- The outcome of each sub entity in the internal evaluation process is measurable
- The Internal evaluation process is carried out in such a way that all students (invariable of the individual's knowledge level) can take up the evaluation.
- The outcomes of evaluation process are distributed equally along the various degrees of difficulty using an available standard (Blooms Taxonomy has been used based on the common Institutional decision).
- Equal distribution of the evaluation process over the entire course syllabi defined, and thereby ensures that the student needs to navigate through the entire syllabi for a successful completion of the course.

Audit Report Format for question paper:

S.No	Course Code/Course Name	Standard of the Question paper			Bloom's Taxonomy		Question Paper Coverage of Syllabus		Comments or Suggestions if any
		Very Good	Good	Satisfactory	Followed 50 % application and other higher levels	Followed <50 % application	Fully Covered	Partly Covered	

Auditing team members:

2015-2016	2016-2017	2017-2018
Dr.B.Gopi	Dr.K.R.Kashwan	Dr.R.S.Sabeenian
Dr.R.S.Sabeenian	Dr.R.S.Sabeenian	Dr.R. Vinod Kumar

Answer papers of Continuous Internal Evaluation are audited by the auditing team.

- The auditing team give the comments of the answer scripts to the evaluator and HOD, after auditing.

Audit Report Format for answer script:

COURSE CODE / NAME	REGISTER NO	ORIGINAL MARKS AWARDED	MARKS AWARDED AFTER AUDIT	COMMENTS

Auditing team members:

2015-2016	2016-2017	2017-2018
Prof.B.Gopi	Dr.R.S.Sabeenian	Dr.R.S.Sabeenian
Dr.R.S.Sabeenian	Dr.R.Vinod kumar	Dr. R.Vinod kumar
Prof.R.Vinod kumar	Prof.J.P.Senthil Kumar	Prof.J.P.Senthil Kumar
Prof.J.P.Senthil Kumar	Prof.S.Deepa	Prof. S.Deepa
Prof.S.Deepa	Dr.K.R.Kavitha	Dr.K.R.Kavitha
Dr.K.R.Kavitha	Dr.N.Sasirekha	Dr. N.Sasirekha
Dr.N.Sasirekha	Prof.J.Harirajkumar	Prof.J.Harirajkumar
Prof.J.Harirajkumar	Prof.M.Senthil Vadivu	Prof. R.Gayathri
Dr.B.Thiyaneswaran		

7.3 Continuous Improvement

Salary Package Details

Academic Year	Core Companies	IT Companies	Others (Entrepreneur)	Higher Studies
	Highest Package	Highest Package		
2016-2017	3.5LPA	6.5LPA	6	14
2015-2016	3.5LPA	6LPA	2	14
2014-2015	3.33LPA	4.6LPA	-	16

Higher Studies Details

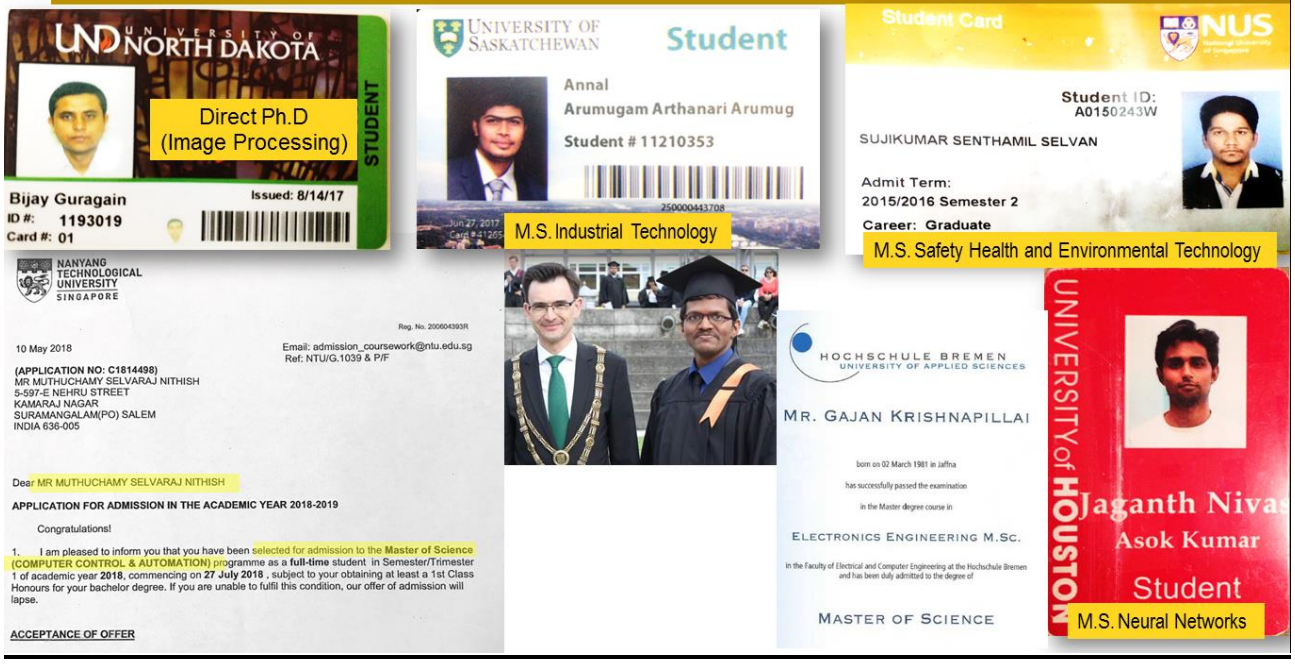
Year	Number of students enrolling into higher education	Program graduated from	Department graduated from	Name of institution joined	Name of program admitted to	Student Names
2016-2017	14	ECE	ECE	PSG college of Technology	M.E	Mani Raja
				PSG college of Technology	MBA	Aishwariya
				PSG college of Technology	M.E	Akshaya Dhaarani
				PSG college of Technology	MBA	Kirthika
				PSG college of Technology	MBA	Giju joel thomas E
				Knowledge Institute of Technology	MBA	Raghul Selvam
				Kumaraguru College of Technology	M.E	Madhusri
				Thagarajar College of Technology	MBA	Nivethitha
				Sona College of Technology	M.E	Sherin
				Sona College of Technology	M.E	B.S.Priyanka

				Sona College of Technology	MBA	Sai Lakshmi
				Knowledge Institute of Technology	M.E	Kowsalya
				Annamalai University	M.E	Spadika Mira
				Anna University	M.E	S.Dhatchani
				Nayang University	MS	Nishanth
2015-2016	14	ECE	ECE	Annamalai University	MBA	Poornimala
				Annamalai University	MBA	Priyadharshini.S
				University of Windsor,Canada	M.S	Neha Prakash Kacholiya
				Sona College of Technology	MBA	Harini
				Sona College of Technology	MBA	Ashika Zulfia
				Sona College of Technology	MBA	Kaviya
				Sastra University	M.Tech	Vandanakumari Raja
				Amrita University	M.E	Akshaya

				University of Texas	MS	Divya Bharathi
				Latrobe University, Badoora, Australia	M.S	Brindhashini Viswanathan
				Anna University	M.E	VP Suriya
				Sona College of Technology	M.E	Vinothini Jane
				Sona College of Technology	MBA	Krithika Preethi
2014-2015	16	ECE	ECE	University of Texas	MS	Nivas
				VIT,Vellore	M.E	Anbarasu
				University of Saskatchewam	MS	Annal
				Anna University, Chennai	M.E	Rasik
				National University of Singapore	MS	Suji Kumar
				PSG Institute of Technology, Coimbatore	M.E	Yoga Janani
				University of Windsor	M.S	Niwith Aryal

				ICAT Design and media college	Multimedia Technology	Nirmala
				Sona College of Technology	MBA	Sangeetha
				Amritha University	M.E	Shiva Priya
				Sona College of Technology	M.E	Vinitha R
				Ramakrishna Engg. College	M.E	G.S.Murali
				Kumaraguru College of Technology	MBA	Pradeep
				University of Buffalo	MS	Muthuvel
				VIT,Vellore	MBA	Nithya.R
				VIT,Vellore	MS	Rubesh

ALUMNI PURSUING HIGHER STUDIES GLOBALLY



Companies Placed

2013-2017

S.NO	Recruiters	Placed
1.	TECHMAHINDRA	14
2.	ZOHO	1
3.	I4U LABS	2
4.	OPENTEXT TECH	1
5.	CHECKTRONIX	1
6.	VURAM TECHNOLOGIES	1
7.	THINK AND LEARN	3
8.	CORPORATE CLINIC	1
9.	DEEVITA TECH	2
10.	TVM SIGNALING	1
11.	AXIS GLOBAL	3
12.	RENAULT NISSAN	7
13.	PLAY FACTORY	3
14.	IDBI FEDERAL	8
15.	SUN RED INFOTECH	13
16.	FAUERCIA INTERIOR SYSTEMS	6
17.	MICROGENESIS TECHSOFT PVT. LTD	1
18.	NEXGEN	1
19.	RETECH SOLUTIONS	1
20.	MAINTECH SOULUTIONS	1
21.	CTS	1
22.	SCHINDLER	1
23.	GIRMITI SOFTWARES	1

2012-2016

S.No	Recruiters	Placed
1.	ZOHO	1
2.	MUSIGMA	2
3.	INFOVIEW	1
4.	TECHMAHINDRA	17
5.	MINDTREE	6
6.	POLARIS FT	5
7.	TAYANA SOFTWARE SOLUTIONS	1
8.	L&T INFOTECH	1
9.	EMBDES TECHNOLOGIES	1
10.	EUREKA FORBES	6

11.	GEMINI COMMUNICATIONS	9
12.	JUST DIAL	6
13.	AXIS GLOBAL	4
14.	BOSCH	1
15.	PLAY FACTORY	1
16.	KGISL	1
17.	SOFT SOLUTIONS	2
18.	CTS	11
19.	INFOSYS	2
20.	EWAVE NETWORKS	14
21.	HGS	5
22.	JUST CONNECT ELECTRICALS	8
23.	TCS	4
24.	SOFT TEK	1
25.	UXL TECHNOLOGIES	1
26.	LAKSHMI VILAS BANK	1

2011-2015

S.No	Recruiters	Placed
1.	MPHASIS	1
2.	MINDTREE	8
3.	TECHMAHINDRA	9
4.	POLARISFT	6
5.	ZOHO	1
6.	VCIDEX	2
7.	EXCELACOM	3
8.	IBM	2
9.	CTS	14
10.	INFOVIEW	2
11.	AXIS GLOBAL	10
12.	ARICENT	1
13.	VEE TECH	6
14.	QUALIAN TECHNOLOGIES	2
15.	TOYOTA TSHUSU ASSEMBLY	2
16.	ROBERT BOSCH	1
17.	CENTRAL BANK OF INDIA	1
18.	STATE BANK OF INDIA	2

19.	HEXAWARE	1
20.	CYBER TECH	1
21.	TVS	2

7.4. Improvement in the quality of students admitted to the program (20)

Assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrances tests, percentage marks in Physics, Chemistry and Mathematics in 12th Standard and percentage marks of the lateral entry students.

ITEM		2017-2018	2016-2017	2015-2016
National Level Entrance Examination (Name of the Entrance Examination)	No.of Students admitted	--	--	--
	Opening Score/Rank	--	--	--
	Closing Score/Rank	--	--	--
State/Institute/Level Entrance Examination/Others (Name of the Entrance Examination)	No. of Students admitted	135	147	156
	Opening Score/Rank	198.33	195.25	195.25
	Closing Score/Rank	115	131	107.25
Name of the Entrance Examination for Lateral Entry or lateral entry details	No. of Students admitted	26	31	24
	Opening Score/Rank	89%	98%	99%
	Closing Score/Rank	63%	68%	85%

Average CBSE/Any other Board Result of admitted students (Physics, Chemistry & Mathematics)	163.48	173.81	176.84

Number of students admitted in the program year wise:

S.No	Academic Year	No of students admitted
1.	2017-18	135
2.	2016-17	147
3.	2015-16	156

No of students admitted in the program (Lateral Entry):

S.No	Academic Year	No of students admitted
1.	2017-18	26
2.	2016-17	31
3.	2015-16	24

Starting score and ending score of the students admitted in the program:

S.NO	Academic Year	Starting score	Ending score
1.	2017-18	198.33	115.00
2.	2016-17	195.25	131.00
3.	2015-16	195.25	107.25

Starting score and ending score of the students admitted in the program (Lateral entry):

S.NO	Academic Year	Starting score	Ending score
1.	2017-18	89%	63%
2.	2016-17	98%	68%
3.	2015-16	99%	85%

CRITERION 8

First Year Academics

8.1	First Year Student-Faculty Ratio (FYSFR)	(5)

Details of student faculty ratio for first year is as shown in table 8.1

Table 8.1 Details of student- faculty ratio for first year

Year	Number of Students (approved intake strength)	Numbers of Faculty Members (Considering fractional load	FYSFR	Assessment = (5 ×15)/ FYSFR (Limited to Max. 5)
CAY (2017-18)	1020	68	15.00	5
CAYm1 (2016-17)	1020	68	15.00	5
CAYm2(2015-16)	960	64	15.00	5
Average	**1000**	**66.67**	**15.00**	5

8.2	Qualification of Faculty Teaching First Year Common Courses	(5)

Assessment of qualification = $(5x + 3y)/RF$

x= Number of Regular Faculty with Ph.D

y = Number of Regular Faculty with Post-graduate qualification

RF= Number of faculty members required as per SFR of 15:1

Table 8.2 Qualification of Faculty Teaching First Year Common Course

Year	X	Y	RF	Assessment of Faculty qualification (5x+3y)/RF
CAY (2017-18)	23	45	68	3.7
CAYm1 (2016-17)	16	52	68	3.47
CAYm2(2015-16)	22	42	64	3.68
Average	**20.33**	**46.33**	**66.67**	**3.62**

Table 8.3 Details of qualification of faculty teaching first year

List of faculty members teaching first year courses: 2017-2018

S. NO	Name of Faculty	Qualification	Designation	Date of joining institution	Department with which associated	Distribution of teaching load (%)		
						1st Year	UG	PG
1	Dr.S.Radjarejesri	Ph.D	Associate Professor	01.07.2005	Science (Chemistry)	-	100 %	-
2	Dr. T.Maruthavanan	Ph.D	Associate Professor	01.07.2005	Science (Chemistry)	100%	-	-
3	Dr. A.P.Uthirakumar	Ph.D	Associate Professor	19.08.2010	Science (Chemistry)	100%	-	-
4	Dr. N.Panneer Selvam	Ph.D	Asst.Prof	26.07.2010	Science (Chemistry)	100%	-	-
5	Dr.M.Raja	Ph.D	Asst.Prof	29.08.2005	Science (Chemistry)	50%	50%	-
6	Dr.G.Shanthi	Ph.D	Asst.Prof	23.08.2010	Science (Chemistry)	100%	-	-
7	S.Kalaiarasan	M.Sc.,M.Phil	Asst.Prof	17.12.2004	Science (Chemistry)	100%	-	-
8	Dr.R.Venkatesh	Ph.D	Asst.Prof	15.09.1997	Science (Chemistry)	50%	50%	-
9	Dr.C.Saravanan	Ph.D	Asst.Prof	23.10.2014	Science (Chemistry)	100%	-	-
10	Dr. C.Shanthi	Ph.D	Professor & Head	15.09.1997	Science (Physics)	100%	-	-
11	Dr. Raja Sri Sen Jaiswal	Ph.D	Professor	31.01.2003	Science (Physics)	100%	-	-
12	Dr. S.Saravanan	Ph.D	Professor	04.05.2009	Science (Physics)	100%	-	-
13	S.Sivakumar	M.Sc.,M.Phil	Asst.Prof	13.03.2017	Science (Chemistry)	100%		
14	G.Chinnasamy	M.Sc.,M.Phil	Asst.Prof	15.03.2017	Science (Chemistry)	100%		
15	G.Saranya	M.Sc.,M.Phil	Asst.Prof	15.03.2017	Science (Chemistry)	100%		
16	K.Elavarasan	M.Sc.,M.Phil	Asst.Prof	15.03.2017	Science (Chemistry)	100%		
17	M.Devendiran	M.Sc.,M.Phil	Asst.Prof	13.03.2017	Science (Chemistry)	100%		
18	R.Madhesh	M.Sc.,M.Phil	Asst.Prof	15.03.2017	Science (Chemistry)	100%		
19	Dr. V.Balasubramanian	Ph.D	Professor	27.06.2002	Science (Physics)	100%	-	-
20	M.Muthukrishnan	M.Sc.,M.Phil	Asst.Prof	01.07.2005	Science (Physics)	100%	-	-
21	Dr.C.Shanmuga Priya	Ph.D	Asst.Prof	01.03.2006	Science (Physics)	100%	-	-
22	Dr.C.Sridevi	Ph.D	Asst.Prof	20.11.2006	Science (Physics)	100%	-	-
23	P.Kavitha	M.Sc.,M.Phil	Asst.Prof	24.01.2011	Science (Physics)	100%	-	-
24	Dr.P.Sangeetha	Ph.D	Asst.Prof	18.02.2013	Science (Physics)	100%	-	-

25	Dr.M.Silambarasan	Ph.D	Asst.Prof	20.07.2009	Science (Physics)	100%	-	-
26	Dr.M.Renuga	Ph.D	Professor	01.10.1997	English	50%	-	50 %
27	V.Vijaya Lakshmi	MA.,M.Phil	Asst.Prof	01.09.2003	English	50%	-	50 %
28	N.Vadivu	MA.,M.Phil	Asst.Prof	20.06.2005	English	100%	-	-
29	G.Sarathalakshmi	MA.,M.Phil	Asst.Prof	20.06.2005	English	50%	-	50 %
30	B.Kanchanamala	MA.,M.Phil	Asst.Prof	10.01.2007	English	100%	-	-
31	M.Saraswathy	MA.,M.Phil	Asst.Prof	23.09.2009	English	100%	-	-
32	C.Shahin Banu	MA.,M.Phil	Asst.Prof	03.01.2011	English	100%	-	-
33	R.Sathees Kumar	MA.,M.Phil	Asst.Prof	10.08.2015	English	100%	-	-
34	P.Sree Gayathiri	MA.,M.Phil	Asst.Prof	17.06.2013	English	100%	-	-
35	S.Jayabharathi	M.Sc.,M.Phil	Associate Professor	05.07.2000	Maths	-	60%	40 %
36	R.Rahothaman	M.Sc.,M.Phil	Associate Professor	03.05.2004	Maths	-	60%	40 %
37	M.Nazreen Banu	M.Sc.,M.Phil	Associate Professor	09.07.2003	Maths	-	60%	40 %
38	Dr.S.R.Latha	Ph.D	Asst.Prof	01.04.2005	Maths	40%	60%	-
39	S.Vijay Peter	M.Sc.,M.Phil	Asst.Prof	01.08.2009	Maths	-	67%	33 %
40	A.Annie Lotus	M.Sc.,M.Phil	Asst.Prof	26.06.2005	Maths	40%	60%	-
41	Dr.A.Saravanan	Ph.D	Asst.Prof	17.10.2005	Maths	-	100 %	-
42	S.Abhirami	M.Sc.,M.Phil	Asst.Prof	03.07.2006	Maths	50%	50%	-
43	G.Suganthi	M.Sc.,M.Phil	Asst.Prof	04.12.2006	Maths	50%	50%	-
44	K.Deiwakumari	M.Sc.,M.Phil	Asst.Prof	02.07.2007	Maths	50%	50%	-
45	A.Abirami	M.Sc.,M.Phil	Asst.Prof	04.07.2007	Maths	50%	50%	-
46	B.Venkatesh	M.Sc.,M.Phil	Asst.Prof	11.06.2007	Maths	-	100 %	
47	T.K.Parvatha Varthini	M.Sc.,M.Phil	Asst.Prof	05.08.2009	Maths	50%	50%	-
48	K.Buvaneswari	M.Sc.,M.Phil	Asst.Prof	03.09.2009	Maths	-	75%	25 %
49	Dr.R.Dhavaseelan	Ph.D	Asst.Prof	15.04.2011	Maths	50%	50%	-
50	V.Krishnaraj	M.Sc.,M.Phil	Asst.Prof	18.05.2012	Maths	50%	50%	-
51	N.Sheebha Florance	M.Sc.,M.Phil	Asst.Prof	04.06.2012	Maths	100%	-	-
52	S.Vanitha	M.Sc.,M.Phil	Asst.Prof	03.08.2015	Maths	100%	-	-

53	S.Uthamapriya	M.Sc.,M.Phil	Asst.Prof	24.08.2015	Maths	100%	-	-
54	R.Shakthivel	M.Sc.,M.Phil	Asst.Prof	27.08.2015	Maths	100%	-	-
55	Dr.S.Harikrishnan	Ph.D	Asst.Prof	15.06.2016	Maths	100%		
56	Dr.R.Saravanan	Ph.D	Asst.Prof	15.06.2016	Maths	100%		
57	Dr.S.Anita	Ph.D	Professor / FT	08.10.2001	FT	100%	-	-
58	M.Sugumaran	ME	Asst.Prof / EEE	22.07.2013	EEE	100%	-	-
59	P.Srinivasan	ME	Asst.Prof / ECE	01.07.2013	ECE	100%	-	-
60	S.Senthil Kumar	ME	Asst.Prof / ECE	01.07.2013	ECE	100%	-	-
61	K.Sridevi	ME	Asst.Prof / CSE	19.07.2013	CSE	100%	-	-
62	K.Vaishnavi	ME	Asst.Prof / CSE	02.08.2013	CSE	100%	-	-
63	P.Abinaya	ME	Asst.Prof / CSE	30.07.2014	CSE	100%	-	-
64	M.Janani	ME	Asst.Prof / CSE	06.08.2015	CSE	100%	-	-
65	K.S.Priyadharshini	ME	Asst.Prof / Mech	01.06.2015	MECH	100%	-	-
66	J.Raja	ME	Asst.Prof / EEE	01.03.2016	EEE	100%	-	-
67	P.Kumarasan	ME	Asst.Prof / ECE	01.03.2016	EEE	100%	-	-
68	S.S.Suresh	ME	Asst.Prof / EEE	01.06.2016	EEE	100%	-	-

The list of faculty teaching first year courses for the academic year 2015-2016 and 2014-2015 is given in **Annexure 8.1.**

8.3	FIRST YEAR Academics Performance	(10)

Table 8.4 First Year Academics Performance of students for the Year 2014-2015

DEPARTMENT	Number of Students appeared in Exam	Number of Successful Students	Total Grade Point Average of all Successful students
Civil Engineering	119	118	907.98
Computer Science and Engineering	132	132	997.4
Electronics and Communication Engineering	**120**	**120**	**947.72**
Electrical and Electronics Engineering	120	120	926.46
Information Technology	122	119	943.16
Mechanical Engineering	186	186	1421.79
Fashion Technology	100	100	763.76
SUM/TOTAL	**899**	**899**	**6908.27**
Mean of the grade point of marks of all Successful students			**7.68**
Academic Performance CAYm2			**7.68**

Table 8.5 First Year Academics Performance of students for the Year 2015-2016

DEPARTMENT	Number of Students appeared in Exam	Number of Successful Students	Total Grade Point Average of all Successful students
Civil Engineering	111	111	852.73
Computer Science and Engineering	122	122	955.66
Electronics and Communication Engineering	**158**	**158**	**1242.1**
Electrical and Electronics Engineering	117	117	901.41
Information Technology	123	120	930.85
Mechanical Engineering	173	173	1299.36
Fashion Technology	113	113	813.52
SUM/TOTAL	**917**	**917**	**6995.63**
Mean of the percentage of marks of all Successful students			**7.62**
Academic Performance CAYm1			**7.62**

Table 8.6 First Year Academics Performance of students for the Year 2016-2017

DEPARTMENT	Number of Students appeared in Exam	Number of Successful Students	Total Grade Point Average of all Successful students
Civil Engineering	103	102	757.9
Computer Science and Engineering	158	158	1216.75
Electronics and Communication Engineering	**148**	**148**	**1127.58**
Electrical and Electronics Engineering	104	104	798.65
Information Technology	92	90	687.73
Mechanical Engineering	163	163	1168.33
Fashion Technology	87	87	612.05
SUM/TOTAL	**855**	**855**	**6368.99**
Mean of the percentage of marks of all Successful students			**7.45**
Academic Performance CAY			**7.45**

Table 8.7 First Year Academics Performance of students for the Year 2017-2018

DEPARTMENT	Number of Students appeared in Exam	Number of Successful Students	Total Grade Point Average of all Successful students
Civil Engineering	106	106	811.65
Computer Science and Engineering	176	176	1353.05
Electronics and Communication Engineering	**137**	**137**	**1050.97**
Electrical and Electronics Engineering	100	100	759.77
Information Technology	101	101	766.93
Mechanical Engineering	168	168	1256.26
Fashion Technology	96	96	709.99
SUM/TOTAL	**884**	**884**	**6708.62**
Mean of the percentage of marks of all Successful students			**7.59**
Academic Performance CAY			**7.59**

8.4	Attainment of Course Outcomes of first year courses	(10)

8.4.1	Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome of first year is done	(5)

As explained in section 2.2.2 in criteria 2, the following are the assessment patterns for different regulations.

Table 8.8 Theory Course Assessment pattern – Regulation 2010R

S.No	Assessment	Marks	Weightage
1	CIE Test 1	50	04
2	CIE Test 2	50	04
3	CIE Test 3	50	04
4	Model Examination	100	08
5	Assignment	05	05
		Total	25

Table 8.9Theory Course Assessment pattern – Regulation 2014, 2015 and 2015R

S.No	Assessment	Marks	Weightage
1	CIE Test 1	50	06
2	CIE Test 2	50	06
3	CIE Test 3	50	06
4	Online Test (One word)	50	07
5	Model Examination	100	08
6	#Attendance	100	05
7	*Assignment 1	20	04
8	*Assignment 2 / Seminar / Quiz	20	04
		Total	40

8.4.2	Record the attainment of Course Outcomes of all courses with respect to set attainment levels	(5)

Table 8.10 CO-PO Mapping 2014 Regulation

Course Code	Course Title	CO	Course Outcome Statements	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2
U14ENG101	Technical English - I	CO1	Use Grammar components effectively in both written and spoken communication					2	2	2	3	3	3	3	3	2	**2**
		CO2	Develop and demonstrate good listening skills for academic and professional purposes					2	2	2	3	3	3	3	3	2	**2**
		CO3	Draw conclusions on explicit and implicit oral information					2	2	2	3	3	3	3	3	2	**2**
		CO4	Develop effective reading skills and reinforce the skills required for grammar and vocabulary building					2	2	2	3	3	3	3	3	2	**2**
		CO5	Read for gathering and understanding information and following directions					2	2	2	3	3	3	3	3	2	**2**

U14MAT102	Multivariable Calculus and Matrices	CO1	Determine Eigen vectors and reduce matrices from one form to another form	3	3	3	3	1	1					1	2	2	**2**
		CO2	Interpret curvature, calculate the radius of curvature, center of curvature and find the evolutes, involutes, envelope of curves and solve partial differentiation	3	3	3	3	1	1					1	2	2	**2**
		CO3	Work out functions of several variables, Jacobian's, Taylor's Theorem, compute the maximum & minimum values and Lagrange's Method	3	3	3	3	1	1					1	2	2	**2**
		CO4	Work out area of plane of region, length of the plane curve and area of surface of solid.	3	3	3	3	1	1					1	2	2	**2**
		CO5	Work out the double & triple integrals, discuss the change of order of integration, multiple integrals to find the area & volume	3	3	3	3	1	1					1	2	2	**2**

U14PHY103	Engineering Physics	CO1	Explain the theory of crystals, structure of crystals and defects in crystals	3	1	1									1	2	**2**
		CO2	Explain the theory of optoelectronics with applications	3	1	1									1	2	**2**
		CO3	Explain the concepts of electrodynamics as applicable to engineers	3	1	1									1	2	**2**
		CO4	Describe quantum mechanics theory and basic wave equations	3	1	1									1	2	**2**
		CO5	Analyze different types of microscopes and discuss the theory of nanophysics	3	1	1									1	2	**2**
U14CHE104	Engineering Chemistry	CO1	Analyze the types of polymers, polymerization reactions, polymerization techniques and fabrication methods of polymers for engineering applications	3	1	1									1	1	**1**
		CO2	Discuss the basic principles of electrochemistry and its applications	3	1	1									1	1	**1**

		CO3	Analyze the types of corrosion and the various control methods for corrosion prevention	3	1	1									1	1	**1**
		CO4	Describe the construction, working principle and applications of energy storage device for electronic appliances	3	1	1									1	1	**1**
		CO5	Discuss the principles, advantages and applications of organic electronic materials used in electronic devices.	3	1	1									1	1	**1**

U14BEE106	Basic Electrical and Electronics Engineering	CO1	Explain the fundamentals of DC machines	3	3	3	3					2		2	2	3	**3**
		CO2	Explain the fundamentals of AC machines	3	3	3	3					2		2	2	3	**3**
		CO3	Explain the principles of Magnetic circuits	3	3	3	3					2		2	2	3	**3**
		CO4	Explain the basics of Electronics and details of Diode and Zener diode	3	3	3	3					2		2	2	3	3
		CO5	Evaluate various Number Systems and to realize the logic functions by using various gates	3	3	3	3					2		2	2	3	3
U14FOC105	Fundamentals of Computing	CO1	Examine the use of databases in the context of managing large amount of data	2		2	1	2	1			2		1	1	2	**2**
		CO2	Identify basic components of a computer system	2		2	1	2	1			2		1	1	2	**2**
		C03	Explain from various viewpoints the purpose of Database Management Systems	2		2	1	2	1			2		1	1	2	**2**
		CO4	Apply knowledge of computing and mathematics appropriate to the discipline	2		2	1	2	1			2		1	1	2	**2**

		CO5	Analyze the local and global impact of computing on individuals, Organizations and society.	2		2	1	2	1			2		1	1	2	**2**
U14PCL107	Physics & Chemistry Laboratory - I	CO1	Construct an experimental setup to form interference fringes and use it to determine the thickness of the given thin wire	1						1		2			1	1	**1**
		CO2	Demonstrate by means of an appropriate experiment the poor thermal conductivity of a given bad conductor	1						1		2			1	1	**1**
		CO3	Estimate the amount of total, temporary and permanent hardness in the given sample of water	1						1		2			1	1	**1**
U14CPL108	Computer Practices Laboratory	CO1	Identify the different ports, peripherals of computer hardware	2	2	2	2	2	1			2			2	2	**2**
		CO2	Partition ,format hard disks and Install system software and application software	2	2	2	2	2	1			2			2	2	**2**
		CO3	Modify control panel settings, install antivirus software, backups, archival utilities and write in CD	2	2	2	2	2	1			2			2	2	**2**
U14EPL109	Engineering Practices Laboratory	CO1	Verify Ohm's Law, Kirchhoff's Law and measure power and power factor for RC, RL, RLC Series and Parallel circuit.	3	3	3	3					2		2	2	3	**3**

		CO2	Study the pipe connection requirements for pumps and turbines and demonstrate on basic machining	3	3	3	3					2		2	2	3	**3**
		CO3	Evaluate the VI Characteristics of PN Junction Diode, Zener Diode and verify the truth table for logic gates.	3	3	3	3					2		2	2	3	**3**
U14ENG201	Technical English – II	CO1	Frame sentences correctly, both in written and spoken forms of language with accuracy and fluency					2	2	2	3	3	3	3	3	2	**2**
		CO2	Introduce themselves deliver speeches and make technical presentation					2	2	2	3	3	3	3	3	2	**2**
		CO3	Speak effectively in real time and business situations					2	2	2	3	3	3	3	3	2	**2**
		CO4	Draft emails, formal letters and Resume					2	2	2	3	3	3	3	3	2	**2**
		CO5	Write reports and proposals, memos and checklists					2	2	2	3	3	3	3	3	2	**2**
U14MAT202	Vector Calculus, Differential Equations and Complex Analysis	CO1	Work out on different types of ordinary differential equations and use various methods to solve differential equations	3	3	3	3	1	1					1	2	2	**2**
		CO2	Compute vector functions, operators and use different methods of solving line, surface and volume integrals.	3	3	3	3	1	1					1	2	2	**2**

		CO3	Describe special features of function of a complex variable, Properties and solve the problems involving conformal mapping.	3	3	3	3	1	1					1	2	2	**2**
		CO4	Work out the power series expansion of a complex function and the procedures of evaluating the complex integral.	3	3	3	3	1	1					1	2	2	**2**
		CO5	Work out problems on Laplace transform its inverse, properties and solve an ordinary Differential equation using Laplace transforms.	3	3	3	3	1	1					1	2	2	**2**
U14PHY203	Material Science	CO1	Distinguish between electrical and thermal conductivity based on classical free electron theory of solids and apply Fermi distribution function to calculate carrier concentration in metals.	3	1	1									1	2	**2**
		CO2	Differentiate intrinsic and extrinsic semiconductors, analyze the variation of Fermi level with temperature and apply Hall effect to determine the nature of charge carriers.	3	1	1									1	2	**2**

		CO3	Discuss the properties and applications of magnetic and super conducting materials.	3	1	1								1	2	**2**
		CO4	Explain the different types of polarization process in dielectric materials, their frequency and temperature dependence and discuss the causes of dielectric breakdown	3	1	1								1	2	**2**
		CO5	Describe metallic glasses and shape memory alloys and explain the synthesis, properties and applications of nano materials and carbon nano tubes	3	1	1								1	2	**2**
U14CHE205A	Chemistry for Electrical and Electronics Engineers	CO1	Analyze the types of polymers, polymerization reactions, polymerization techniques and fabrication methods of polymers for engineering applications.	3	1	1								1	1	**1**

		CO2	Describe the importance of various types of food products and their biological importance.	3	1	1									1	1	**1**
		CO3	Discuss the role of Chemistry in day to day life.	3	1	1									1	1	**1**
		CO4	Identify the various types of fuels, and explain their chemical compositions, properties and applications in engineering field.	3	1	1									1	1	**1**
		CO5	Outline the principle of organic electronic materials and its applications in the fabrication of electronic devices.	3	1	1									1	1	**1**
U14CPR206	Programming in C	CO1	Develop C Programs using basic programming concepts	2	2	2	2	2	1			2			2	2	**2**
		CO2	Develop C programs using arrays and strings	2	2	2	2	2	1			2			2	2	**2**

		CO3	Develop applications in C using functions , pointers and structures & input/output and file handling in C	2	2	2	2	2	1			2			2	2	**2**
		CO4	Write C program for simple applications of real life using structures and files	2	2	2	2	2	1			2			2	2	**2**
		CO5	Explain role of Operating system in computer system and applications of computer networks	2	2	2	2	2	1			2			2	2	**2**
U14EGR207	Engineering Graphics	CO1	Develop in student's graphic skill for communication of concepts, ideas and design of engineering products	2		2		1	1					1	1	1	**1**
		CO2	Develop special curves such as polygons helices and screw threads	2		2		1	1					1	1	1	**1**
		CO3	Develop the different shapes of machine components	2		2		1	1					1	1	1	**1**

		CO4	Create drawings for fabricating boilers, chimneys, ducts and machine structures	2		2		1	1					1	1	1	**1**
		CO5	Develop the solids and surfaces	2		2		1	1					1	1	1	**1**
U14PCL208	Physics & Chemistry Laboratory – II	CO1	Demonstrate the application of a diode laser to determine the characteristics of a given optical fibre	3	1	1									1	1	**1**
		CO2	Demonstrate the estimation of hydrochloric acid present in the given solution using pH meter	3	1	1									1	1	**1**
		CO3	Estimate the mixture of acids by conductometry	3	1	1									1	1	**1**
U14CPL209	C Programming Laboratory	CO1	Develop C Programs using basic programming concepts	2	2	2	2	2	1			2			2	2	**2**
		CO2	Develop C programs using arrays and strings	2	2	2	2	2	1			2			2	2	**2**
		CO3	Develop applications in C using functions , pointers and structures & input/output and file handling in C	2	2	2	2	2	1			2			2	2	**2**

ATTAINMENT OF COURSE OUTCOMES

The assessment processes are carried out based on the procedure described in criteria 3.

The table below shows the attainment of course outcomes through direct and indirect assessment for 2014-2018 Batch.

Course Code	Name of the subject	COs	Direct Value	Indirect Value	Total
U14ENG101	Technical English – I	CO1	99.15	84.62	94.79
		CO2	99.15	83.76	94.53
		CO3	99.15	84.33	94.70
		CO4	100.00	84.90	95.47
		CO5	100.00	86.04	95.81
U14MAT102	Multivariable Calculus and Matrices *	CO1	88.03	78.92	85.30
		CO2	88.03	80.91	85.90
		CO3	88.89	83.48	87.26
		CO4	79.49	82.62	80.43
		CO5	79.49	81.48	80.09
U14PHY103	Engineering Physics *	CO1	85.47	85.75	85.56
		CO2	88.89	86.61	88.21
		CO3	94.87	85.47	92.05
		CO4	92.31	85.75	90.34
		CO5	92.31	85.47	90.26
U14CHE104	Engineering Chemistry *	CO1	82.91	85.19	83.59
		CO2	90.60	83.19	88.38
		CO3	94.02	84.62	91.20
		CO4	90.60	85.75	89.15
		CO5	90.60	84.90	88.89
U14FOC105	Fundamentals of Computing Systems *	CO1	74.36	78.92	75.73
		CO2	76.92	85.19	79.40
		CO3	76.92	81.48	78.29
		CO4	87.18	84.33	86.32

		CO5	87.18	85.47	86.67
U14BEE106	Basic Electrical & Electronics Engineering	CO1	85.47	88.89	86.50
		CO2	92.31	88.32	91.11
		CO3	93.16	87.75	91.54
		CO4	93.16	88.60	91.79
		CO5	93.16	88.32	91.71
U14PCL107	Physics & Chemistry Laboratory-1	CO1	85.47	94.59	88.21
		CO2	92.31	94.02	92.82
		CO3	95.73	96.58	95.98
U14CPL108	Computer Practices Laboratory *	CO1	79.49	95.44	84.27
		CO2	93.16	94.87	93.68
		CO3	93.16	95.16	93.76
U14EPL109	Engineering Practices Laboratory *	CO1	98.29	96.58	97.78
		CO2	99.15	95.73	98.12
		CO3	100.00	96.01	98.80
U14ENG201	Technical english – ii	CO1	92.31	77.78	87.95
		CO2	96.58	84.90	93.08
		CO3	100.00	79.49	93.85
		CO4	100.00	74.36	92.31
		CO5	100.00	79.49	93.85
U14MAT202	Vector calculus, differential equations and complex analysis	CO1	84.62	78.35	82.74
		CO2	84.62	88.32	85.73
		CO3	82.05	78.35	80.94
		CO4	86.32	76.92	83.50
		CO5	86.32	83.19	85.38
U14PHY203	Material science	CO1	98.29	88.60	95.38
		CO2	94.87	84.62	91.79
		CO3	88.89	79.77	86.15
		CO4	96.58	85.47	93.25
		CO5	96.58	78.63	91.20

U14CHE205A	Chemistry for electrical and electronics engineers	CO1	87.18	79.49	84.87
		CO2	79.49	83.19	80.60
		CO3	70.94	82.62	74.44
		CO4	69.23	81.48	72.91
		CO5	69.23	81.48	72.91
U14CPR206	Programming in c	CO1	75.21	94.02	80.85
		CO2	68.38	90.03	74.87
		CO3	59.83	87.46	68.12
		CO4	64.10	92.02	72.48
		CO5	64.10	89.74	71.79
U14EGR207	Engineering graphics	CO1	86.32	81.20	84.79
		CO2	87.18	84.05	86.24
		CO3	84.62	86.32	85.13
		CO4	90.60	87.18	89.57
		CO5	90.60	83.19	88.38
U14PCL208	Physics and chemistry laboratory - ii	CO1	100.00	86.61	95.98
		CO2	100.00	91.17	97.35
		CO3	88.89	87.75	88.55
U14CPL209	C programming laboratory	CO1	100.00	91.45	97.44
		CO2	98.29	90.03	95.81
		CO3	77.78	90.03	81.45
U14BEEL210	Basic Electrical And Electronics Engineering Laboratory	CO1	100.00	90.31	97.09
		CO2	100.00	91.17	97.35
		CO3	76.92	91.45	81.28

8.5	Attainment of Program Outcomes of all first year courses	(20)

The following table shows the PO and PSO attainment

Table: 8.14 PO and PSO Attainment for the Batch (2014 – 2018)

COURSE CODE	COURSE TITLE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
U14ENG101	TECHNICAL ENGLISH – I	0.00	0.00	0.00	0.00	95.06	95.06	95.06	95.06	95.06	95.06	95.06	95.06	95.06	95.06
U14MAT102	MULTIVARIABLE CALCULUS AND MATRICES	83.79	83.79	83.79	83.79	83.79	83.79	0.00	0.00	0.00	0.00	83.79	83.79	83.79	83.79
U14PHY103	ENGINEERING PHYSICS	89.28	89.28	89.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	89.28	89.28	89.28
U14CHE104	ENGINEERING CHEMISTRY	88.24	88.24	88.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	88.24	88.24	88.24
U14FOC105	FUNDAMENTALS OF COMPUTING SYSTEMS	81.28	0.00	81.28	81.28	81.28	81.28	0.00	0.00	81.28	0.00	81.28	81.28	81.28	81.28
U14BEE106	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	90.53	90.53	90.53	90.53	0.00	0.00	0.00	0.00	90.53	0.00	90.53	90.53	90.53	90.53
U14PCL107	PHYSICS & CHEMISTRY LABORATORY-1	92.34	0.00	0.00	0.00	0.00	0.00	92.34	0.00	92.34	0.00	0.00	92.34	92.34	92.34
U14CPL108	COMPUTER PRACTICES LABORATORY	90.57	90.57	90.57	90.57	90.57	90.57	0.00	0.00	90.57	0.00	0.00	90.57	90.57	90.57
U14EPL109	2 ENGINEERING PRACTICES LABORATORY	98.23	98.23	98.23	98.23	0.00	0.00	0.00	0.00	98.23	0.00	98.23	98.23	98.23	98.23
U14ENG201	TECHNICAL ENGLISH – II	0.00	0.00	0.00	0.00	92.21	92.21	92.21	92.21	92.21	92.21	92.21	92.21	92.21	92.21
U14MAT202	VECTOR CALCULUS, DIFFERENTIAL EQUATIONS AND COMPLEX ANALYSIS	83.66	83.66	83.66	83.66	83.66	83.66	0.00	0.00	0.00	0.00	83.66	83.66	83.66	83.66

U14PHY203	MATERIAL SCIENCE	91.56	91.56	91.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91.56	91.56	91.56
U14CHE205A	CHEMISTRY FOR ELECTRICAL AND ELECTRONICS ENGINEERS	77.15	77.15	77.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77.15	77.15	77.15
U14CPR206	PROGRAMMING IN C	73.62	73.62	73.62	73.62	73.62	73.62	0.00	0.00	73.62	0.00	0.00	73.62	73.62	73.62
U14EGR207	ENGINEERING GRAPHICS	86.82	0.00	86.82	0.00	86.82	86.82	0.00	0.00	0.00	0.00	86.82	86.82	86.82	86.82
U14PCL208	PHYSICS AND CHEMISTRY LABORATORY - II	93.96	93.96	93.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	93.96	93.96	93.96
U14CPL209	C PROGRAMMING LABORATORY	91.57	91.57	91.57	91.57	91.57	91.57	0.00	0.00	91.57	0.00	0.00	91.57	91.57	91.57
U14BEEL210	BASIC ELECTRICAL AND ELECTRONICS ENGINEERING LABORATORY	91.91	91.91	91.91	91.91	0.00	0.00	0.00	0.00	91.91	0.00	91.91	91.91	91.91	91.91

8.5.2	Actions taken based on the results of evaluation of relevant POs	(5)

Table 8.15 PO Attainment Levels and Actions for improvement or Batch 2014-2018

8.5.2 Actions taken based on the results of evaluation of relevant POs and PSOs (10)

POs Attainment Levels and Action taken for improvement – (2017-2018) CAYm			
POs	Target Level	Attainment Level	Observations
PO1: Utilize the basic knowledge in mathematics, science and Engineering in Electronics and Communication Engineering field			
PO1	77%	85.22%	1. Target achieved 2. Attainment Level need to be improved in 18.5 % of the courses.
Action taken 1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members. 2. Additional coaching classes were conducted beyond the regular planned classes. 3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems. 4. Allowing students to visit industries to get practical exposure. 5. Conducted workshop handled by industry experts. 6. Conducted research / innovation awareness program among students and faculty members.			
PO2: Identify, formulate and solve the complex problems to achieve demonstrated conclusions using mathematical principles and engineering sciences.			
PO2	77%	82.53%	1. Target achieved 2. Attainment Level need to be improved in 14.8 % of the courses.
Action taken 1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members. 2. Additional coaching classes were conducted beyond the regular planned classes. 3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems. 4. Allowing students to visit industries to get practical exposure. 5. Conducted workshop handled by industry experts. 6. Conducted research / innovation awareness program among students and faculty members.			

<table>
<tr><td colspan="4">PO3: Design system components that meet the requirement of public safety and offer solutions to the societal and environmental concerns.</td></tr>
<tr><td>PO3</td><td>77%</td><td>84.71%</td><td>1. Target achieved
2. Attainment Level need to be improved in 16.7 % of the courses.</td></tr>
<tr><td colspan="4">Action taken
1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.</td></tr>
<tr><td colspan="4">PO4: Apply the research – based knowledge to design and conduct experiments, analyze, synthesize and interpret the data pertaining Electronics and Communication Engineering problems and arrive at valid conclusions.</td></tr>
<tr><td>PO4</td><td>77%</td><td>81.49%</td><td>1. Target achieved
2. Attainment Level need to be improved in 14.8 % of the courses.</td></tr>
<tr><td colspan="4">Action taken
1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.</td></tr>
<tr><td colspan="4">PO5: Construct, choose and apply the techniques, resources and modern engineering tools required for electronics and Communication Engineering applications.</td></tr>
<tr><td>PO5</td><td>77%</td><td>81.94%</td><td>1. Target achieved
2. Attainment Level need to be improved in 11.11 % of the courses.</td></tr>
<tr><td colspan="4">Action taken
1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.</td></tr>
</table>

3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO6: Apply the contextual knowledge to assess societal, health, safety and cultural issues and endure the consequent responsibilities relevant to the professional engineering practice.

PO6	77%	77.18%	1. Target achieved 2. Attainment Level need to be improved in 12.9 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO7: Examine the impact of Engineering solutions in global and environmental contexts and utilize the knowledge for sustained development.

PO7	77%	77.36%	1. Target achieved 2. Attainment Level need to be improved in 1.8 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO8: Develop consciousness of professional, ethical and social responsibilities as experts in the field of Electronics snd Communication Engineering

PO8	77%	77.99%	1. Target achieved 2. Attainment Level need to be

			improved in 1.8 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO9: Perform effectively as a member / leader in multidisciplinary teams			
PO9	77%	87.99%	1. Target achieved 2. Attainment Level need to be improved in 3.7 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.
6. Conducted research / innovation awareness program among students and faculty members.

PO10: Communicate the engineering activities to engineering society to prepare for documentation and presentation.			
PO10	77%	80.26%	1. Target achieved 2. Attainment Level need to be improved in 9.2 % of the courses.

Action taken

1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members.
2. Additional coaching classes were conducted beyond the regular planned classes.
3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems.
4. Allowing students to visit industries to get practical exposure.
5. Conducted workshop handled by industry experts.

6. Conducted research / innovation awareness program among students and faculty members.			
PO11: Demonstrate knowledge and understanding of the engineering and management principles to manage projects in multidisciplinary environment			
PO11	77%	84.32%	1. Target achieved 2. Attainment Level need to be improved in 16.7 % of the courses.
Action taken 1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members. 2. Additional coaching classes were conducted beyond the regular planned classes. 3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems. 4. Allowing students to visit industries to get practical exposure. 5. Conducted workshop handled by industry experts. 6. Conducted research / innovation awareness program among students and faculty members.			
PO12:Demonstrate resourcefulness for contemporary issues and lifelong learning			
PO12	77%	83.36%	1. Target achieved 2. Attainment Level need to be improved in 16.7 % of the courses.
Action taken 1. The students were found lagging in analytical part. To overcome this, workshops were conducted with experts from Industry. In addition to that tutorial hours are handled by two faculty members. 2. Additional coaching classes were conducted beyond the regular planned classes. 3. Students are motivated by using the teaching learning tools like Blackboard and Lecture capture systems. 4. Allowing students to visit industries to get practical exposure. 5. Conducted workshop handled by industry experts. 6. Conducted research / innovation awareness program among students and faculty members.			

PSOs Attainment Levels and Action taken for improvement – (2017-2018) CAYm

PSOs	Target Level	Attainment Level	Observations
PSO1:Apply the fundamental concepts of Electronics and Communication Engineering to design a variety of components and systems for applications including signal processing, image processing, communication, networking, embedded systems, VLSI and control systems			
PSO1	77%	81.44%	1. Target achieved
Action Taken			

1. Teaching Learning tools – Lecture Capture System, Black board, Moodle, etc.
2. Students are motivated to do mini – projects on recent technologies.
3. Set- up embedded laboratory for experimentation models.
4. Students are given technical training for improving their skills.

PSO2: Select and apply cutting-edge engineering hardware and software tools to solve complex Electronics and Communication Engineering problems			
PSO2	77%	84.27%	1. Target achieved

Action Taken

1. Teaching Learning tools – Lecture Capture System, Black board, Moodle, etc.
2. Students are motivated to do mini – projects on recent technologies.
3. Set- up Embedded laboratory for experimentation models.
4. Students are given technical training for improving their skills.

CRITERION 9

STUDENT SUPPORT SYSTEMS

9.1 Mentoring system to help at individual level (5)

Sona College of Technology is working towards enhancing the educational culture to better serve the needs of vibrant learning community. Effective mentoring begins with the faculty. When it comes to academic success and persistence, there should be a healthy relationship among faculty members and students. Mentoring and guidance shall be on the following aspects:

- Academic guidance
- Career guidance
- Encouraging students to take up mini projects and internships/industrial trainings
- Motivating to pursue Co-curricular, Extra-curricular activities and social activities
- Encouraging students to participate in arts and sports events
- Personality and character development

The following summarizes the system in place to provide the aforementioned aspects to students.

Class Counselor (CC)

An effective student mentoring system has been implemented in the institution. A CC is being appointed for every batch of students when they are in their second year and they hold the responsibility until their completion of the program.

First year students have CCs from the General Engineering department and at the end of first year they will hand over formally the records of those students to the department. The CCs will maintain all records of their respective wards assigned to them and generally counsel them on maintaining good attendance, discipline and academic performance. CCs will maintain a complete database of their wards starting from their personal details, academic performance, attendance, co-curricular /extracurricular participation/ achievements and the details of parent meetings.

Faculty Advisor (FA)

To monitor the performance of students on a regular basis and to counsel and motivate them throughout their course, the HODs of individual departments allocate around 15 students to each and every faculty in the department who shall function as Faculty Advisor (FA) for those students throughout their period of study. FAs shall advise the students, monitor the courses undergone by them, monitor their performance in tests and also look into their personal difficulties.

Each Faculty advisor has been given a Student Counseling Record book for every student allotted to monitor their progress continuously. The Faculty advisor also keeps track of student activities like Co-curricular, Extra Curricular achievements and Social activities. This record book will be frequently reviewed by the Head of the Department.

Attendance shortage, performance in the CIE tests will be counseled with care. If FAs have identified that the students have certain personal or any other problem which cannot be sorted from their level, they would be directed to the Academic Coordinator and Senior Counselor through CC and HOD.

FAs will be submitting the details of the low performers to the CCs, Academic Coordinator and HOD for mentoring in order to improve his/her performance in the subsequent tests. The parents shall always be informed regarding the progress as well as problems. This team will scrutinize case by case and suggest corrective measures, if necessary. Then, the team will have discussions with the parents and student counselor (centrally appointed by the Institution).

Class Committee

Each class of various sections shall have a Class Committee which is constituted by a Chairperson (faculty who does not handle courses for them), Class Counselors, faculty members teaching the courses for all the sections, and student representatives. This committee is formed with the overall goal of improving the effectiveness of the teaching-learning process and other activities of the students. Two subsequent meetings are held in a semester at suitable intervals. During these meetings, the student members representing the entire class shall meaningfully express the opinions and suggestions of the other

students of their class to improve teaching-learning process and also other grievances. The chairperson and teachers disseminate the activities carried out in the department. They inform the students about the activities such as schedule of placement training classes, participation of students in the extracurricular and co-curricular events, internship opportunities, industry training and workshops, inviting volunteers for other activities in the department and many others. The functions of the Class Committee include

- Solving issues faced by students in the class room and in the laboratories.
- Clarifying the regulations of their degree program and the details of rules therein.
- Informing the student representatives about the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
- Informing the student representatives the details of regulations regarding Weightage used for each assessment. In the case of practical courses (Laboratory experiments /Engineering drawing/project work/seminar/Internship etc.), the breakup of marks for each experiment/exercise/module of work.
- Analyzing the performance of the students of the class after each test and finding the ways to improve it.
- Identifying slow learners, if any, and requesting the teachers concerned to provide some additional help or guidance/ coaching to such students.

The Chairperson is required to prepare the minutes of every meeting, submit the same to the Head of the Department within two days of the meeting and arrange to circulate it among the students and teachers concerned. If there are any points requiring support and action from the Management, the same shall be brought to the notice of the Management through the Principal.

Efficacy of Mentoring System:

Establishment of the above stated mentoring system has help us in the following ways

1. Enhanced the teaching learning process to be more student centric
2. Created a positive work environment

3. Helped the students learn to take better control of his or her career
4. Provided impartial advice and encouragement to students
5. Developed a supportive relationship between students and staff
6. Assisted with problem solving and Improved self-confidence of students
7. The CIE Performance and Semester end Exam performance of students has improved
8. Obtained gradual improvement in attendance percentage of students
9. Was able to provide individual and personal care to the students with the help of Faculty Advisors
10. Information gathering and dissemination was easy

9.2. Feedback analysis and reward /corrective measures taken, if any (10)

9.2.1 Feedback collected for all courses: YES

9.2.2 Feedback Collection Process

The teaching-learning system followed by any educational institution needs continuous refinement. To capacitate this process of continuous refinement, the institution has adopted a feedback system that takes suggestions from students of each program. This eventually helps to fine-tune the teaching-learning process and the curriculum. The institution follows a well-defined and formal feedback system. It has been identified as one of the important process in our Quality Management System.

The feedback from students regarding the quality of teaching is collected during each semester, through the Management Information System (MIS) and MOODLE (local server). The students' feedback collection process is depicted in Figure 9.1. In the middle of the semester, the students are asked to respond to a feedback questionnaire with 20 questions. Once the feedback process is complete, the reports are generated automatically based on the formula. The consolidated report containing grade for each course is sent to the respective Heads of the department and the information is disseminated to the faculty in the department. Corrective actions are taken for the faculty members who have obtained C and D grades by the Head of the Department.

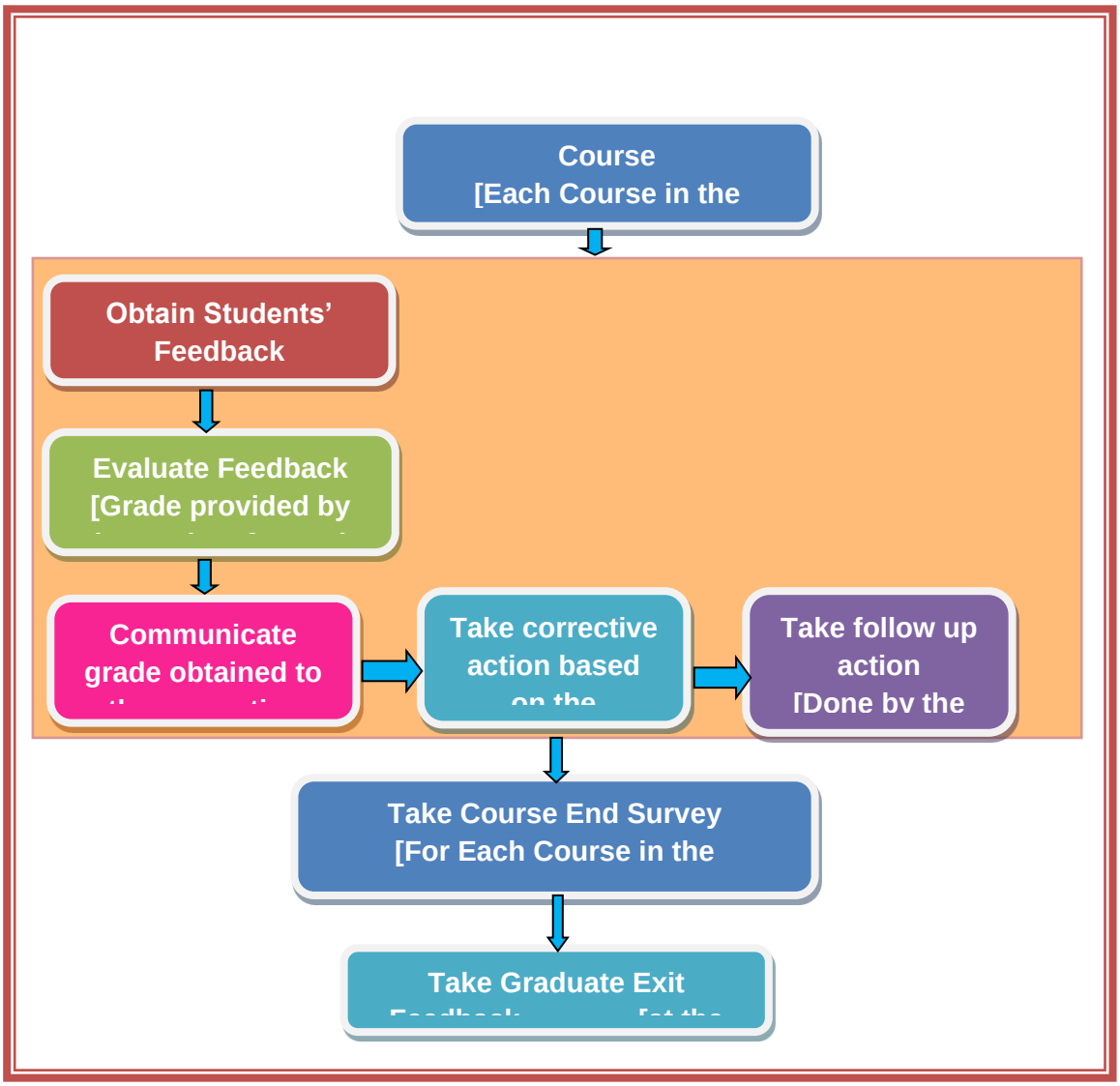


Figure 9.1 Student Feedback Process

Student Feedback questionnaire:

S.No.	Title of the Course:	Strongly Agree (S1)	Agree (S2)	Neutral (S3)	Disagree (S4)	Strongly Disagree (S5)
	My teacher…	5	4	3	2	1
1	Explains clearly the Course Outcomes (COs) of the course					
2	Shows how the COs are related to the Programme Outcomes (POs)					
3	Provides a copy of the POs, COs and syllabus of the course					
4	Teaches in class according to the syllabus					
5	Provides a well-organised Textbook, Course Material or Handouts					
6	Organises class activities (Videos/Quizzes/Demos/ etc) that help me learn					
7	Speaks in English throughout the class; explains topics in Tamil at students' request after the class					
8	Lectures in a clear and easily audible voice					
9	Makes use of Chalkboard / PowerPoint / CBT during lessons, whenever necessary					
1	Uses examples/stories/videos/etc as required to help me learn easily					
1	Works out course-related problems in the class					
1	Shows how application or situation-oriented questions can be answered					
1	Asks questions in class that helps me learn well					
1	Encourages students to ask questions in class and clears					

	doubts so we understand well					
1	Makes the class lively with timely jokes					
1	Gives individual feedback on CIE-Tests performance					
1	Treats all students impartially (fairly)					
1	Is in time for every class and ends the class in time					
1	Is polite in general and gives individual attention to all students					
2	Is also easily accessible outside of the classroom					

The evaluation of the feedback by the students is done as follows:

$$\text{Marks} = \frac{\left((\sum S1) * 5\right) + \left((\sum S2) * 4\right) + \left((\sum S3) * 3\right) + \left((\sum S4) * 2\right) + ((\sum S5) * 1)}{X * 100}$$

where X is the total number of students participated in the feedback collection process.

The grades are assigned with the help of the following grade ranges:

Marks	**91-100**	**81-90**	**71-80**	**61-70**	**<=60**
Grade	A+	A	B	C	D

Students' feedback regarding the teaching-learning process is also collected from students orally during class committee meetings. At the end of each semester, students are required to complete a semester Course End Survey. In this, students will be required to respond to questions that examine how well they have acquired the skills on learning the respective course and subsequently attainment of COs and thereby POs attainment is computed.

Course End Feedback Questionnaire:

Sample Course End survey collected at the end of fifth semester for 2010R

10					
DEPARTMENT OF ECE					
B.E. ECE REGULATION 2010R					
Semester V					
U10GE501BR Probability and Random Process					
S No	**CO**	**Questions**	**Strongly agree**	**Agree**	**Disagree**
1.	CO1	I can explain the concepts of moments and its properties			
2.	CO2	I can estimate the covariance correlation and regression of random variables			
3.	CO3	I can classify the random process with examples			
4.	CO4	I can analyse the concept of power spectral density and cross spectral density			
5.	CO5	I can analyse the response of random variables to LTI system			
U10EC502R Analog Communication System					
S No	**CO**	**Questions**	**Strongly agree**	**Agree**	**Disagree**
1.	CO1	I can describe the generation and detection methods of various AM systems.			
2.	CO2	I can explain the various types of generation and demodulation methods of FM systems.			
3.	CO3	I can estimate the overall noise figure for cascaded amplifiers.			
4.	CO4	I can analyse and compare the noise performance of analog modulation systems.			
5.	CO5	I can evaluate the coding efficiency of different source coding techniques.			

U10EC503R Digital Signal Processing					
S No	**CO**	**Questions**	**Strongly agree**	**Agree**	**Disagree**
1.	CO1	I can exploit the properties of discrete Fourier transforms and implement DFT using fast Fourier transform.			
2.	CO2	I can design and realize finite impulse response filters.			
3.	CO3	I can design and realize IIR filters.			
4.	CO4	I can analyze quantization effects and multirate signal processing.			
5.	CO5	I can discuss the architecture and addressing modes of digital signal processor TMS320C54.			
U10EC504R Transmission Lines and Waveguides					
S No	**CO**	**Questions**	**Strongly agree**	**Agree**	**Disagree**
1.	CO1	I can analyse electromagnetic wave propagation in generic transmission line geometries.			
2.	CO2	I can design impedance matching transmission line and calculate the reflection coefficient, SWR, using smith chart.			
3.	CO3	I can analyse guided waves and their field pattern between parallel planes of perfect conductors.			
4.	CO4	I can design and measure the various propagating modes of rectangular wave guides.			
5.	CO5	I can derive the field equation of circular waveguides and resonators.			
U10EC505R Microprocessor and its Applications					
S No	**CO**	**Questions**	**Strongly agree**	**Agree**	**Disagree**
1.	CO1	I can analyse the internal architecture of 8085 and write assembly language program in 8085μp.			
2.	CO2	I can interface various peripherals with			

		8085µp.			
3.	CO3	I can analyse internal architecture of 8086µp, addressing modes, instruction sets and write assembly language program using 8086µp.			
4.	CO4	I can apply the concepts of different coprocessors – numeric and I/O processor.			
5.	CO5	I can interface ROM, RAM, temperature controller and stepper motor.			

U10EC506R Measurements and Instrumentations

S No	CO	Questions	Strongly agree	Agree	Disagree
1.	CO1	I can discuss the measurement errors, units, and standards.			
2.	CO2	I can design electromechanical instruments and bridges.			
3.	CO3	I can construct electronic instruments and oscilloscopes.			
4.	CO4	I can develop circuit for signal generators and frequency counters.			
5.	CO5	I can analyse different transducers, data acquisition system and fiber optic measurements.			

U10GE502R Personality and Career Enhancement - III

S No	CO	Questions	Strongly agree	Agree	Disagree
1.	CO1	I can build resume impressively.			
2.	CO2	I can communicate effectively.			
3.	CO3	I can involve actively in group discussion, interviews and presentation.			
4.	CO4	I can develop public speaking skills.			
5.	CO5	I can participate actively in role play, and debate.			

U10EC507R Microprocessor Laboratory					
S No	**CO**	**Questions**	**Strongly agree**	**Agree**	**Disagree**
1.	CO1	I can develop programs for arithmetic operations, code conversion using 8085 Microprocessor.			
2.	CO2	I can write programs for arithmetic operations, code conversion using 8086 Microprocessor.			
3.	CO3	I can interface 8085 microprocessor with PPI, timer , keyboard and stepper motor.			
U10EC508R Digital Signal Processing Laboratory					
S No	**CO**	**Questions**	**Strongly agree**	**Agree**	**Disagree**
1.	CO1	I can perform Convolution and generation of signals using MATLAB and TMS320C54 Processor.			
2.	CO2	I can analyse sampling theorem and calculation of DFT using MATLAB and TMS320C54 Processor.			
3.	CO3	I can design of FIR and IIR filters using MATLAB and TMS320C54 processor.			
U10EC509R Measurements and Instrumentations Laboratory					
S No	**CO**	**Questions**	**Strongly agree**	**Agree**	**Disagree**
1.	CO1	I can find the parameters - resistance, inductance and capacitance of the given bridge.			
2.	CO2	I can develop front panel structures using VI.			
3.	CO3	I can generate a LABVIEW code to perform various operations related to instrumentation			

At the end of the program (during 8th semester), exit survey is taken from the students to understand their level of attainment of their skills and expectations on the conduct of the department activities. The questionnaire is given below.

Graduate Exit Feedback Questionnaire

EXIT SURVEY

EXIT INTERVIEW FOR GRADUATING EVERGREEN STUDENTS

Dear Graduating Student:

Based on the learning experience for the past four years in the ECE program, please indicate the extent to which you possess the following abilities. The information you provide will allow us to provide student better services and compile critical data for the assessment of program outcomes.

Name : _____ Year of graduation : _____

E-mail Address : _____

Permanent Contact Number : _____ Current Phone : _____

Permanent Address : _____ Current Address : _____

S.No	Questionnaire	PO	To a great extent	To a moderate extent	To a slight extent	To a very little extent	Not at all
1.	Able to utilize the basic knowledge in mathematics, science and engineering	1	5	4	3	2	1
2.	Able to solve complex problems using mathematical principles and engineering sciences.	2	5	4	3	2	1
3.	Capable of offering solutions to the societal and environmental issues	3	5	4	3	2	1
4.	Able to involve in	4	5	4	3	2	1

	research based activities						
5.	Ease of handling	5	5	4	3	2	1
6.	Able to apply contextual	6	5	4	3	2	1
7.	Capable of utilizing the knowledge for continuous self-development.	7	5	4	3	2	1
8.		8	5	4	3	2	1
9.	Able to perform effectively as a member/leader in multidisciplinary teams	9, 11	5	4	3	2	1
10.	Able to communicate the engineering activities through documentation and presentation.	10	5	4	3	2	1
11.	Able to engage	12	5	4	3	2	1
12.	Our students were apply the fundamental concepts to design systems for applications	PSO 1	5	4	3	2	1
13.	Our students were able to select and apply cutting-edge engineering hardware and software tools to solve complex problems	PSO 2	5	4	3	2	1

Signature with date

9.2.3 Percentage of students who participated: 90 -100%

9.2.4 Feedback analysis process

The feedback collected from students are first analyzed at the level of HOD and then at the level of faculty appraisal committee, headed by the Principal. The contents of the feedback will be shared with each faculty member individually.

Basis of reward/corrective measures, if any:

The feedback system works as an eye opener for the faculty. Best faculty award is given based on students' feedback, HOD's evaluation, the faculty's self-appraisal report and the marks given by Faculty appraisal committee, headed by Principal. The increments and promotions are also bearing some effect on these scores. Those with low scores will be counseled and asked to improve their performance in the subsequent semesters by incorporating team teaching and attending pedagogical training and other faculty development programs.

The faculty members are constantly motivated by giving rewards. They are given based on the factors performance such as

1. Award based on university examination results
2. Outstanding Overall performance in Research and publications.
3. Award for outstanding Grants and funds received
4. Congratulating the newly married couple, 15th and 25th wedding anniversary couple
5. Appreciation of gratitude towards SONA (Completion of 8 to 20 of service)

9.2.5 Number of corrective actions taken in the last three years:

Faculty members whose feedback grade is less were counseled during last three years. The counseling led to improvements in their performance and quality of teaching. Training for the faculty in the area of interest is given to make them improve the teaching skills.

Number of corrective actions taken during the assessment years:

2014-15: 10

2015-16: 17

2016-17: 01

9.3. Feedback on facilities (5)

This survey template can help collect feedback from students regarding the resources and facilities available to them. We gather feedback on what could be improved, and what could be added to improve their life at campus.

	S. No	Facilties	Excellent	Very Good	Good	Satisfactory	Need Improvement
			5	4	3	2	1
Classrooms	1	Size					
	2	Lighting and Ventilation					
	3	Audio & Video Quality in Smart Classroom					
	4	Quality and Quantity of Furniture					
	5	Cleanliness					
Computer Labs	6	No of Computers					
	7	Availability of Software					
	8	Maintenance					
	9	Internet Connectivity					
	10	Anti-Virus					
Wi-Fi	11	Accessibility of Wi-Fi in your institute with adequate bandwidth					
	12	Reliability of Wi-Fi					
	13	Availability of Support Staff to entertain student's queries					
Canteen	14	Food Prices					
	15	Hygiene and quality of food					
	16	Quantity					
	17	Timings					
	18	Menu					
	19	Service					
	20	Adequate sitting arrangement					
W	21	No of Washrooms					

	22	Cleanliness of Washroom all the time					
Drinking Water	23	Availability of ample water supply					
	24	Quality of drinking Water					
Extra-Curricular Activities & Sports	25	Support and promotion of sports activities by college authorities					
	26	Enough space available to play sports in college					
	27	Number of competitions held department wise					
	28	Availability of extra time to prepare for college fest					
	29	Motivation from college authorities to participate and other college fest					
GYM	30	Variety of Gym Equipment					
	31	Timings					
	32	Fees					
	33	Availability of Gym Instructor					

The following bar chart represents the response of the students to the survey taken on the provision and quality of various facilities available in the institution for the three academic years. The charts clearly elucidate the improvements in facilities provided. This proves that the management is keen in providing the best facilities to enable a comfortable environment for learning and research.

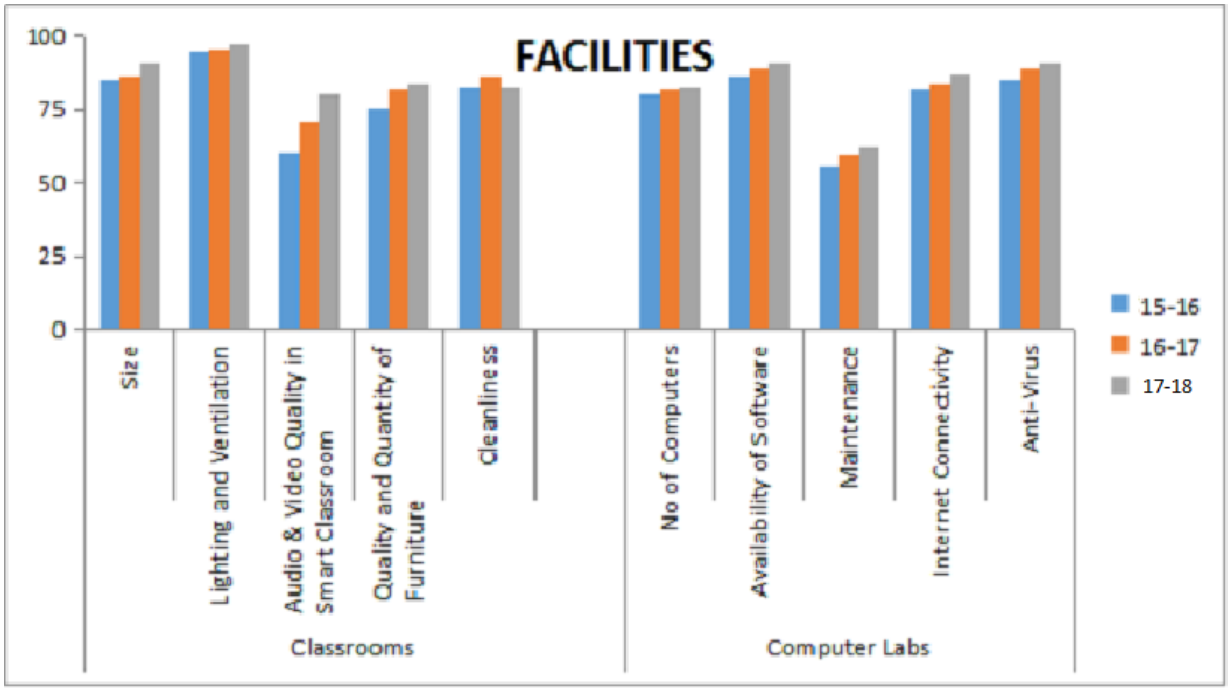


Figure 9.1 Feedback on facilities classrooms, computer labs

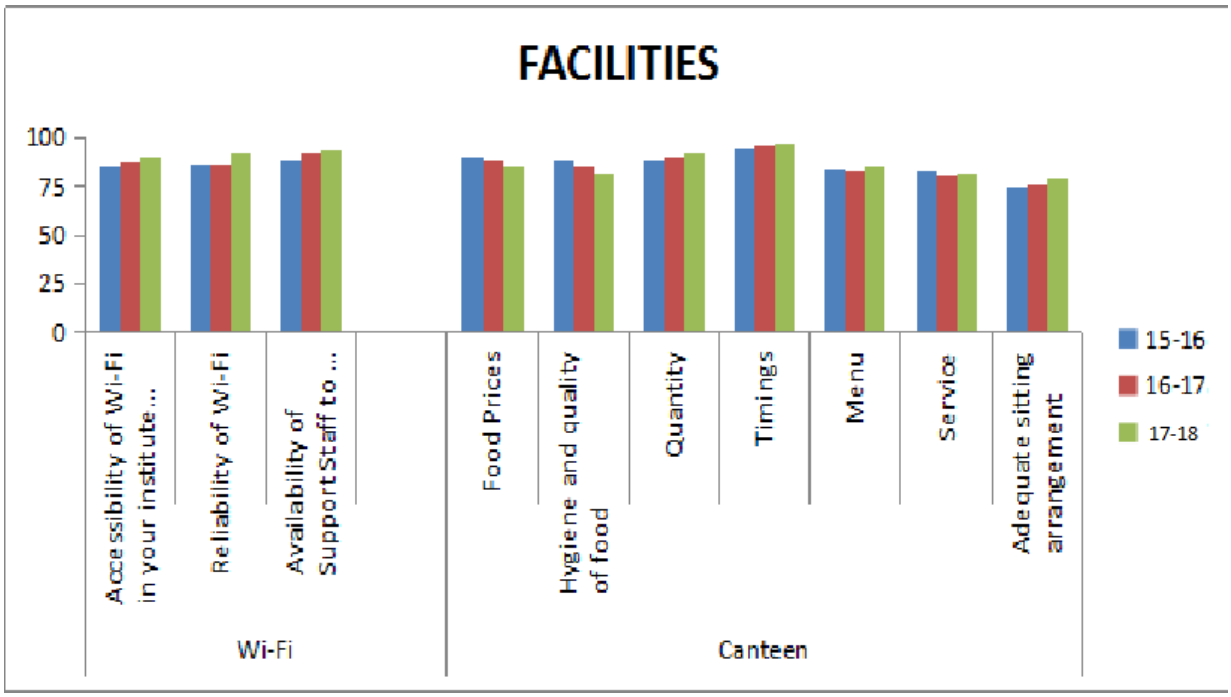


Figure 9.2 Feedback on facilities Wi-Fi, Canteen

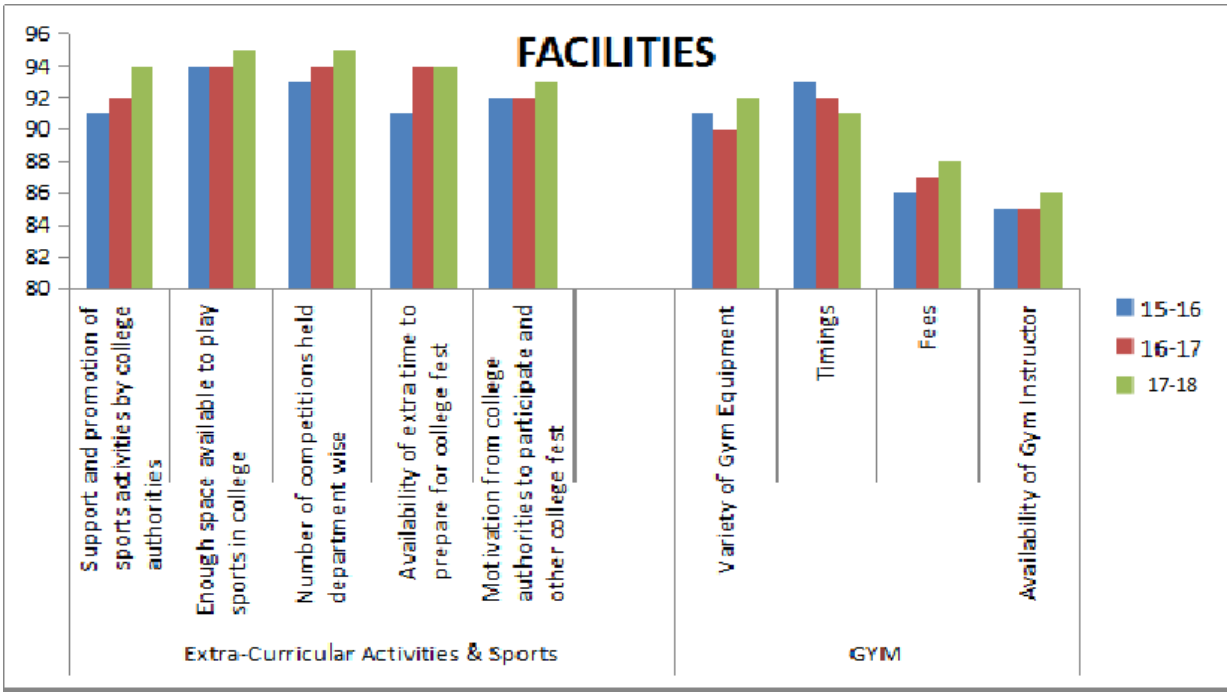


Figure 9.3 Feedback on facilities washroom, Drinking water

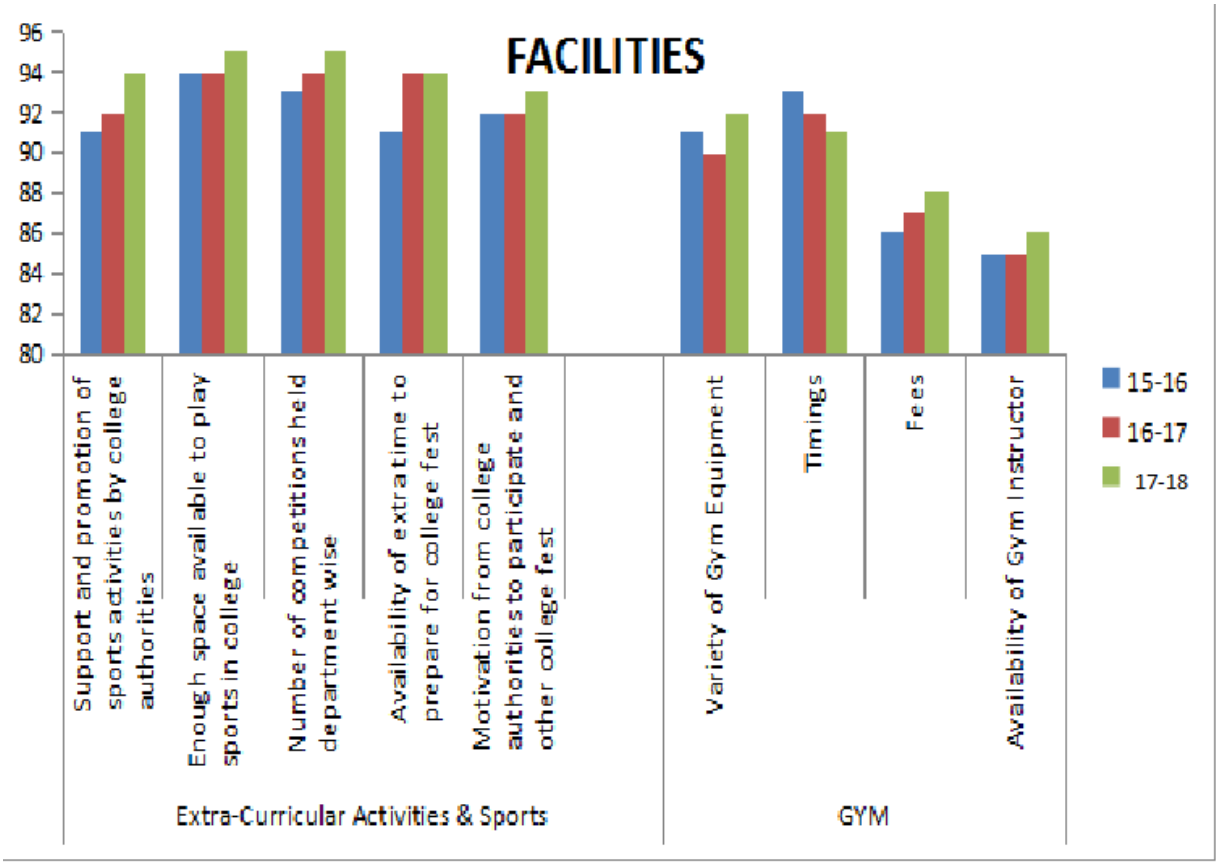


Figure 9.4 Feedback on Extra Curricular Activities sports and gym

9.4. Self-Learning (5)

- The curriculum offers courses like Mini project in the second and third year,pProject in the final year where the topics are selected by students themselves or based on suggestions by the supervisor. The component of self-learning is evaluated in these courses.
- Every student has to submit an assignment in every course which has been evaluated for 5 marks. Some of these tasks are beyond syllabus to encourage outstanding students to develop their self-learning capabilities.
- Seminars and works shops are organized for the students to enhance their skill.
- IGNITE –A Software exhibition conducted every year for the students to show case their innovative ideas through developments
- Intra Departmental Symposium and Inter College Symposiums are conducted yearly to encourage the students to participate in various contests which will help them to learn new technologies.
- Industrial visits are organized every year to give exposure to the students in the environment of real application development. These visits will also give opportunities to students to know the work culture of the organization.
- Students are given on-duty to participate in technical events conducted in other institutions where they are exposed to new technologies and practices.
- Students are encouraged to take MOOC courses from platforms such as Coursera and NPTEL.
- SONA is a Wi-Fi campus where students can learn through Internet.
- Students are provided with Internet access in all the labs and allow the students to do live coding.
- Students participate in programming contests like TGMC (The Great Mind Challenge Contest conducted by IBM), ACM ICPC (programming contest conducted by ACM), and Aspirations (programming contest conducted by Infosys) and so on. Participation in these contests provide insight into the world of the programming and application development.
- Students take up competitive examinations like GATE, TANCET, NAC-Test.

- Programming talent of the student is enhanced using the Sona Programming Club (SPROC)
- Students can have a broad idea about the current technologies using the books available in the Main/Department Library facilities.

9.5 Career Guidance, Training, Placement (10)

As a process that focuses on helping students understand their own strengths and weaknesses, and know what careers they would be best suited for, and how to pursue them, the institution has appointed a ***Full time Placement Officer*** who would be in-charge for providing Career guidance and placement trainings. In addition at least two Placement Coordinators are being nominated to manage placement activities of their respective department in coordination with the Placement officer.

The autonomous status had open up more opportunities to interact with industries. The college now has a placement plan of providing job for every single student who is eligible and opting to get placed. Achievements during the recent years prove its success.

The strategy for the coming years will be vertical based placement to help the students the career they wanted to pursue.

Training & Placement Cell

The aim of Training & Placement Cell of the institute is to see that the student is being placed in competitively good companies by identifying their knowledge skills, attitude matrices of every individual student, creating job profiles for them, identifying areas of training & various methods as per the training requirement, formulate sequence of activities to meet the training schedules for appropriate placement.

The overall role of the Training & Placement cell is of a facilitator and counselor for placement related activities. The placement cell is to act as contract place to arrange for campus visits and conduct of recruitment process of the perspective employers for the purposeful placement of students of the college.

To achieve its objective the cell liaises with the various industrial establishments and corporate houses. The Training & Placement office provides the infra-structural facilities to conduct group discussions, tests and interviews besides catering to other logistics.

Activities of the Training & Placement Cell:

1) Training: On line and off line training provided to students

a. Online aptitude training provided through following sites

1. www.aspiringminds.com
2. www.expanian.com
3. www.hackerrank.com
4. www.hackerearth.com
5. www.geeksforgeeks.org
6. www.hiremee.co.in

b. **Offline training is being provided by**

1. Arranging workshops for Communication skill, Personality Development, Aptitude and Personal Interview.
2. Arranging Guest Lectures regarding interview skills.
3. Organizing In plant Trainings & Industrial Visits.
4. Conducting training tests through BlackBoard and Moodle platforms.
5. Providing placement related books and course materials

2) Career Guidance:

1. Highlighting articles on departmental notice boards, regarding Competitive Exams and Industrial Career.
2. Creating awareness about career planning and career mapping among students
3. Providing additional coaching for GATE Exam/ Other Competitive preparation with the help of in-house faculty and online test series.
4. Providing Student counseling and career guidance by incorporating personality and career enhancement courses in the curriculum.
5. Providing training on life skills. They are also given training in the area of quantitative aptitude, logical reasoning and verbal reasoning.
6. Providing training for competitive examinations through Swadesh programme.
7. Conducting interaction programs through alumni

3) Placement:

1. Providing guidance for preparation of resume.
2. Communicating with Alumni for available openings.
3. Interacting with industries for campus interviews.
4. Arranging/Conducting campus interviews.
5. Conducting Mock interviews for the students to build up confidence in facing the interviewers. In this regard, the Panel members are invited from corporate sector and alumni members of the institution.
6. Training students on group discussion techniques.

Number of students placed through on-campus and off-campus placements:

Average percentage of placement of outgoing students during the last five years			
Year	**Number of students placed**	**Package received**	**Program graduated from**
2012 – 2013	602	2.75 Lakhs p.a.	CS,IT,ECE,EEE,MECH, CIVIL, MCA & MBA
2013 – 2014	587	2.82 Lakhs p.a	CS,IT,ECE,EEE,MECH, CIVIL, MCA & MBA
2014 – 2015	891	2.21 Lakhs p.a	CS,IT,ECE,EEE,MECH, CIVIL, MCA & MBA
2015 – 2016	1044	2.52 Lakhs p.a.	CS,IT,ECE,EEE,MECH, CIVIL, MCA & MBA
2016 – 2017	732	2.82 Lakhs p.a	CS,IT,ECE,EEE,MECH, CIVIL, MCA & MBA
2017 - 2018	762	2.65 Lakhs p.a	CS,IT,ECE,EEE,MECH, CIVIL, MCA & MBA

Table 9.1 Number of students placed through on-campus and off-campus placements

9.6 Entrepreneurship cell [EDC] (5)

Entrepreneurship today has become very significant, given that its being a key to economic growth and industrial development. The objectives of industrial development, regional growth, and employment generation depend upon

entrepreneurial development. Entrepreneurs give greater employment opportunities to the unemployed youth. Knowing its benefits, the Institution has established an **Entrepreneurship Development Cell** that helps in inculcating the spirit of entrepreneurship among all the students. The EDC is headed by a Chief Coordinator supported by departmental co-coordinators.

Table 9.2 Events conducted / attended during the year 2014 – 2015

S.No.	Date	Name of the Programme
1.	03.04.2014	ED Cell conducted monthly training event titled **"Vision Building"** for I year & II year B.E.students at ED Cell Training Hall between 4.00 pm & 5.30 pm.
2.	23.04.2014	ED Cell & CSI Students Branch jointly organized **"Seminar on Entrepreneurship"** for B.E. CSE and M.E. students at Main Building Seminar Hall between 3.00 pm & 4.15 pm.
3.	05.06.2014	Chief Coordinator delivered a training lecture on **pricing, costing and customer management** to the participants of Prime Minister Employment Generation Programme(PMGEP) organized by Indian Bank Self Employment Training Institute (INDSETI) at Dharmapuri.
4.	19.06.2014	ED Cell & MBA Department jointly organized a seminar **"Introduction to National Stock Exchange (NSE)"** for the benefit of MBA & B.E/B.Tech faculty at Mechanical Conference Hall between 10.00 am & 11.35 am.
5.	19.07.2014	Chief Coordinator attended training programme **"Art of Selling** "organized by **BMQR Certifications P.Ltd., Chennai** at Hotel Ganesh Mahal, Salem.
6.	25.06.2014	Chief Coordinator along with 2 faculty participated in the **"ICTACT Bridge 2014"**industry-institute interaction programme at Coimbatore.
7.	22.07.2014	Conducted **"Webinar"**programme for the faculty between 2.00 pm & 3.15 pm.
8.	25.07.2014	Conducted ED Cell meeting about the topic **"Marketing Strategy"** for the ED Cell members.
9.	26.07.2014	Chief Coordinator attended **"NEN Faculty Leaders Meet"** at GRG School of Management Studies, Coimbatore.
10.	27.07.2014	Chief Coordinator delivered a lecture about **"Motivation"** to Final year MCA "A" section students of our college.
11.	29.07.2014	Chief Coordinator and 2 students attended a guest lecture

		programme on **"Empowerment to Business and face the changes of Globalization"** at Engineers Association Building, 4 Roads, Salem.
12.	08.08.2014	Chief Coordinator attended seminar on Business Opportunities and Incubation Support in Nanotechnology at PSG Tech. Coimbatore.
13.	12.08.2014	Chief Coordinator & Students attended a seminar **"Star Trek – By CII, an experience sharing session"**by Mr.B.Soundarajan,Chairman, Suguna Group of Companies (Poultries) organized by **Sona School of Management.**
14.	12.08.2004 & 13.08.2014	Students attended in **"Induction Programme"** for the First Year Students.
15.	14.08.2014	Chief Coordinator delivered a expert talk about **"Entrepreneurship Awareness & Motivation"** for I year MCA students
16.	25.08.2014	Conducted expert talk programme **"Technology Based Business Opportunities – ASKME.COM"** by Ms.Abirami, Manager & Channel Partner, Coimbatore between 5.00 pm & 6.00 pm.
17.	26.08.2014	Conducted monthly training / meeting 2nd year Interaction session between 5.00 pm & 6.30 pm.
18.	04.09.2014	Conducted expert talk programme **"Marketing the E-commerce products – ASKME.COM"** by Ms.Abirami, Manager & Channel Partner, Coimbatore between 3.50 pm & 4.50 pm. for II year MBA students and ED Cell members.
19.	11.09.2014	Attended a expert talk programme titled **"Operation Management"** conducted by Sona School of Management for I year MBA students and ED Cell members between 5.30 pm & 7.00 pm.
20.	25.09.2014	Conducted seminar on **"**Information Security**"** by Mr.A.K.Asokan, Director, Netlabs Ltd.,Chennai.
21.	27.09.2014 & 05.10.2014	Conducted **MSME – DI Chennai Export Procedures and Documentation/ Certified Training Programme**
22.	10.10.2014	Students attended One Day Workshop programme **"How to write the Business Plan(TATA First Dot NEN Workshop"**at PSG College of Tech., Coimbatore.
23.	10.10.2014 &	Chief Coordinator and students participated in the

	11.10.2014	**"Global Entrepreneurship Submit - 2014"** at Bangalore.
24.	16.10.2014 & 17.10.2014	Chief Coordinator attended 2- day event on **"Understanding Venture Investments and Incubators and Corporate CSR"** organized by Asian Pacific Incubation Network(APIN) and Indian Steps and Business Incubators Association(ISBA) at Bangalore.
25.	30.10.2014	Conducted a guest lecture about the topic **"Tips for becoming a Successful Entrepreneur & Experience Sharing"** delivered by Mr.E.Samilson, AP/CSE Department for the ED Cell Members.
26.	18.11.2014	Chief delivered a guest lecture about the topic **"Entrepreneurship Development Programme for Women"** to **Sitra Powerloom Service Centre** trainees at Paviesh Park, Lakshmi Nagar, Bhavani.
27.	21.11.2014	Conducted industrial visit to **JSW Steel P.Ltd., Mechari,** organized by **CII Salem** for students environmental safety Mission for the benefit of I year MBA students and ED Cell members along with faculty on 21.11.2014.
28.	09.12.2014	Conducted awareness programme on **"Bar Coding"** organized by Government of India, MSME DI – Chennai – 32 for outside participants.
29.	19.12.2014	Chief Coordinator presented a guest lecture on **"Inspirational Teaching Methodologies"** to the faculty of the department of Information Technology between 9.30 am – 1.00 pm.
30.	02.01.2015	Conducted monthly training / meeting for 2nd year Interaction session between 5.00 pm & 6.00 pm.
31.	06.01.2015	Conducted **"Incubation Centre Meeting"** at ED Cell Training Hall by faculty for establishing incubation centre in our institution.
32.	22.01.2015	Chief Coordinator delivered a expert talk on **"Creativity and Innovations"** for the student community at Cheran College of Engineering, K.Paramathi, Karur – 639 111.
33.	23.01.2015	Chief Coordinator delivered a expert talk on **"Youth Employment Generation Programme"** at Periyar University, Salem.
34.	14.02.2015	Awareness programme on **Opportunities & Supports to Micro, Small & Medium Enterprises by NSIC Technical Services, Govt.of India, Chennai organized** by The Salem District Small Scale and Tiny Industries Association supported

		by **Sona College of Technology & Salem Productivity Council.**
35.	11.3.2015 To 12.3.2015	Chief Coordinator participated **Directors Round Table along with the Ministry of Skill Development and Entrepreneurship followed by Entrepreneurship** **Education Conclave** held at **India Habitat Centre, Delhi.**
36.	21.03.2015	Chief Coordinator participated in **"Brand Launch and Curtain Raiser Programme"** at KCT Tech. Park, Coimbatore.

Table 9.3 Events conducted / attended during 2015 - 2016

S.No.	Date	Details of the Program
1.	1.4.2015	Students conducted EDC monthly meeting for our ED Cell members at ED Cell Training Hall.
2.	17.4.2015	Students attended an interactive session with NEN Consultant between 10.00 am & 1.00 pm.
3.	24.4.2015	Chief Coordinator attended **Minutes of 4th Quarter Meeting District Level Advisory Committee of INDSETI** at Conference Hall, Collect orate Office, Salem.
4.	29.5.2015 To 31.5.2015	Chief Coordinator attended **Pre- ZTWS** (Pre Zone Trainers Workshop) Conducted by JCI, Salem.
5.	9.6.2015	Chief Coordinator visited **INTEC 2015 EXPO** along with faculty at Coimbatore.
6.	12.6.2015	Chief Coordinator gave a talk on **Skill Enhancement** during the **Certificate Award Function - Skill Development Programme for Youth sponsored by SAIL Refractory Co Ltd.,** Salem organized through Centre for Social Responsibility Initiatives **(CSIR)** Salem.
7.	25.6.2015 To 28.6.2015	Chief Coordinator got certified as **Zone Trainer** organized by Junior Chamber International.
8.	7.7.2015	Conducted a expert talk programme about the topic **"Effective Use of Money as Resource"** delivered by Mr.M Prince Faraqualeeth Raja for the benefit of II,III and IV year students

9.	17.7.2015	Chief Coordinator delivered an Expert Talk about **"Entrepreneur's Motivation"** for the benefit of II Yr. MCA "B" students.
10.	29.7.2015	Conducted "Students On boarding Webinar" for III and IV year students
11.	1.8.2015	Chief Coordinator delivered an expert talk in One day Workshop **"Y Entrepreneurship**"organized by Vellammal College of Engineering and Technology, Madurai.
12.	4.8.2015	Students conducted EDC monthly meeting for marketing the ED Cell members II &III year students.
13.	8.8.2015	Chief Coordinator attended **"Global Investors Meet 2015 – District Road Shows with Special Focus on MSME"**at Hotel Ashwa Park, Steel Plant Road, Salem.
14.	12.8.2015	Students attended CII – Seminar programme at P.G.Auditorium
15.	16.8.2015	Chief Coordinator participated in International Training Course JCI IMPACT Hosted by JCI Salem Metro on 16.8.2015.
16.	17.8.2015	Chief Coordinator delivered an expert talk about the topic on "Problem Solving Management" for the benefit of ED Cell members from 5.15 pm & 6.30 pm.
17.	10.9.2015	Conducted MSME projects and funding awareness programme addressed by **Mr. Shiva Rama Prasad, Asst. Director of MSME.**
18.	11.9.2015	Conducted a guest lecture programme delivered **by Mr. Velpari,** an entrepreneur for the benefit of II, III & IV year students between 11.00 am & 1.00 pm.
19.	11.9.2015	Chief Coordinator delivered an expert talk about the topic on **"Cyber Crime"** for the benefit of police personnel, Salem organized by **Inspector of Police, Office of In-service Training Centre, Salem.**
20.	15.9.2015	Conducted attended **NEN – Webinar** about "**Road Mapping"** for the benefit of ED Cell members.
21.	23.9.2015	Conducted **"Creativity Workshop for Idea Generation"** for the benefit of I,II and III year students between 2.00 pm and 5.00 pm at Main Building Seminar Hall.
22.	31.10.2015	Chief Coordinator attended **EDI sponsored** program for the Master Class on Incubation at ITC Grand Chola, Chennai organized by TiE Chennai along with (Dr Chandrasekar EEE, Dr

		Balasubramanian (PHY) & Mr Venkatesan SCEC)
23.	6.11.2015 & 7.11.2015	Sona College of Technology jointly organized with MSME Development Institute, Chennai conducted **National Vendor Development Programme at Sports Complex/SCT.**
24.	27.11.2015	Chief Coordinator attended **"NEN Reconnect Meeting"** with Regional Manager at PSG Tech. Coimbatore
25.	03.12.2015 & 04.12.2015	Chief Coordinator attended**" Capacity Building Programme for Business Incubation"** at PSG. Tech. Coimbatore, sponsored by EDI, Govt. of India.
26.	10.12.2015	Conducted **"Webinar Programme"** for the benefit of II & III year students.
27.	12.12.2015	Chief Coordinator attended **"Effective Sales & Marketing Techniques"** organized by Codissia and Wadhwani Foundation at Codissia Trade Fair Complex, Coimbatore.
28.	16.12.2015	Conducted **"Webinar Programme** about the topic **"Communicate well, Build Confidence, Be Successful Entrepreneur"** for the benefit of II & III year students.
29.	16.12.2015 & 17.12.2015	Conducted a two day workshop for developing Entrepreneurs about the topic **"Boot Camp"** jointly with **Avant Garde** for the benefit of UG / PG students held at MCA Auditorium.
30.	5.1.2016	Students attended **"Student Entrepreneur & Workshop"** conducted by NEN at Kumaraguru College of Technology, Coimbatore
31.	6.1.2016	Students attended **"E-Leader Workshop"** conducted by NEN at Kumaraguru College of Technology, Coimbatore
32.	7.1.2016 & 8.1.2016	Chief Coordinator attended**" Capacity Building Programme for Business Incubation"** at VIT – TBI, Vellore Institute of Technology, Vellore.
33	11.01.2016	Periyar University & Puthiya Thalaimurai TV & Foundation jointly organized a one day programme. CC delivered a presentation on the "Incubation Facilities @ Sona"
34	12.01.2016	Conducted interactive session with first year students in our EDC Training Hall.
35	18.01.2016	Industrial Visit – Aavin Milk Dairy
36	18.01.2016	Conducted E-Talk, Experience of sharing by an entrepreneur

		Delivered by Mr.K.Saravanakumar, Proprietor of Adal of Varaigalai, Print Magic and Ilakku Advertising Agency.
37.	19.1.2016	Conducted **"Webinar Programme** about the topic **"Building & Managing Your Team in an Early Stage Start-up"** for the benefit of EDC Members.

Table 9.4 Events conducted / attended during 2016 - 2017

S.No.	Date	Details of the Program
1.	15.6.2016 To 17.6.2016	Attended **3 Day Capacity Building Workshop (ISBA GIZ Project) at Pune** along with the **faculty Mr.G.Suresh, Asst.Prof. Department of EEE.**
2.	21.7.2016 & 22.7.2016	The Society for Educational and Entrepreneurship Development honoured to our Chief Coordinator **"Best Entrepreneurship Cell Coordinator Award 2016"** for recognizing his contribution for effective **Institute Industry Linkages.**The award is presented at the **4th National Submit** in Sustainable Institute Industry Partnership **(SIIP)** held at **India International Centre, New Delhi** between 21st & 22nd July 2016.
3.	06.8.2016	Attended **Start-Up Meet** in Bangalore under the auspices of **BCIC**
4.	19.8.2016	Attended 3rd Meeting of the District Level **RSETI Advisory Committee** for the year 2016 – 17 of the **INDSETI Salem** held at Meeting Hall, Collectorate, Salem.
5.	07.09.2016	Invited as a Chief Guest for the inauguration of **Entrepreneurship Awareness Camp** conducted by **Arasu Engineering College, Kumbakonam** sponsored by **National Science and Technology Entrepreneurship Development Board (NSTEDB)Department of Science & Technology, Govt. of India, New Delhi** in collaboration with **Entrepreneurship Development Institute of India, Ahmadabad.**
6.	20.10.2016	Attended **EDI – TN Top Management Program@Kumaraguru**

		College of Technology. Coimbatore.
7.	30.10.2016	Delivered special address on **"Entrepreneurship and Research in Academy"** in the event of Salem – The Destination for future conference at **Grand Estancia, Salem.**
8.	10.11.2016 To 12.11.2016	Attended **Faculty Development Programme** organized by the **PMO – IEDP** (Programme Monitoring Office – Innovation and Entrepreneurship Development Program at Kumaraguru College of Technology, Coimbatore.
9.	22.11.2016 & 23.11.2016	Attended the workshop for **Incubation Managers to exchange best practices between UK and India** at St.Mary's Hall, The Raintree Hotel, Alwarpet, Chennai – 18.
10.	17.12.2016	Regular Meeting of **IE(I)** Salem Chapter about the topic **"Energy Conservation"**
11.	30.12.2016	**ISTE** Session Chairman for the Vocational Education & Panelist – Employment & Skills Today at Thiagarajar Polytechnic College, Salem.
12.	4.1.2017 & 5.1.2017	Students attended **NEN – E Leader Workshop** at KCT Business School, Coimbatore. 1. Mr.K.Likhith Reddy - IV ECE "A" 2. Mr.M.Vinoth - IV Mech "D" 3. Ms.J.Bhagyashree - IV ECE "A" 4. Ms.G.Ramya - III FT "B"
13.	6.1.2017	Presentation regarding incubator and its support in the **"BEL's Seminar on Role of Start – ups in Defence"** at BEL's Incubation Cell, Bangalore.
14.	27.01.2017	Attended 5th Meeting of the District Level **RSETI** (Rural Self Employment Training Institute) Advisory Committee for the year 2016 – 2017 at Meeting Hall, Collectorate, Salem.
15.	31.01.2017	Visited **"IMTEX 2017 Expo"** organized by **Indian Machine Tool Manufacturer's Association** at Bangalore.

16.	4.3.2017	Participated in Skill Development on**" Research Methodology and Quality Publications"** conducted by The Institution of Engineers (I) Salem Local Centre in association with IE(i) Student Chapter, Sona College of Technology, Salem.
16.	11.3.2017	Attended **"5th Edition : CII – Young Indians (Yi) National Entrepreneurship Summit 2017"** at Hotel Vivanta by Taj MG Road Bengaluru.
17.	26.03.2017	Attended for panel discussion at R – SAP (EDI Review of Start – up Activation Program) at Kumaraguru College of Technology, Coimbatore.
18.	31.3.2017	Attended Special Meeting of the District Level **RSETI Advisory Committee of INDSETI** Salem for the year 2016 – 17 at Meeting Hall, Collect orate Salem.

Table 9.5 Events conducted / attended during 2016 – 2017

S.No.	Date	Details of the Program
1.	11.7.2016	Chief Coordinator delivered an expert talk about the topic **"Social Entrepreneurship"** for the benefit of II Year MCA students (Lateral Entry) between 11.00 am & 1.00 pm.
2.	27.7.2016	Sona School of Management jointly organized with **CII, Chennai** to conduct **Webinar** on **How to Transform your Ideas and Ambition into Business Reality?** for the benefit of students.
3.	28.7.2016	Conducted **NEN Webinar** for the benefit of ED Cell members.
4.	30.7.2016	Conducted **"Monthly Meeting"** for the benefit of EDC members (II,III and IV year.students).
5.	11.8.2016 & 12.8.2016	EDC Members Ms.Mohana Priya.A, Abinaya.M and Akshaya.N got **I Prize in B - Plan Contest** held at **Bannari Amman Institute of Technology, Sathyamangalam, Erode.**
6.	29.8.2016	**Conference Call** with **BCIC Bangalore** for Innovation Cell implementation and skill enhancement.
7.	30.8.2016	Conducted **ICE Breaking Programme** for the benefit of **First Year MBA "A"** section students
8.	05.09.2016	Conducted a training session **"Identification of Business Opportunities"** for ED Cell members
9.	18.10.2016 & 19.10.2016	Sona ED Cell jointly with IEEE conducted **NEN – E – Leader Workshop** organized by NEN, Chennai.
10.	2.12.2016	Discussed **"Sona Recognition with Scientific Industrial Research Organization "** at MBA Conference Hall
11.	14.12.2016	Conducted **"Top Management Meet – Hub for IEDP of EDI Chennai"** for various institutions & polytechnics to support and implement **IEDP** activities.

12.	22.12.2016 To 24.12.2016	Conducted **"E – Cell /IEDC Faculty Development Programme (FDP) for IEDP of EDI Chennai"** for the benefit of various institutions & polytechnics to understand need for entrepreneurship and innovation in colleges to create and support mechanisms for S**tart Ups** and understand role of **ED & IC s** in Entrepreneurship.
13.	30.1.2017 & 31.1.2017	Conducted **"E-Cell Leader's Workshop"** for the benefit of students from spoke colleges.
14.	09.02.2017	Conducted Review for E-Leader Workshop & Regional Start-up Activation Program for spoke Colleges.
15.	20.2.2017 To 23.3.2017	Conducted **"EDI – NEEDS " T**raining Programme
16.	28.2.2017	Conducted **"EDI – BOOT CAMP"** with spoke colleges

Table 9.6 Events conducted during 2017– 2018

S.No.	Date	Details of the Program
1.	17.7.2017 To 18.8.2017	NEEDS – EDP 2017/1 Training Programme By EDII, Chennai.
2.	17.8.2017 To 19.8.2017	E-Cell Faculty Development Programme for spoke college faculties. (LW100)
3.	1.9.2017	WF-NEN Consulting Meeting with SCT & Polytechnic College students.
4.	15.9.2017	Student Design Project - 2017
5.	20.9.2017 & 21.9.201	Participated in 6th National Summit on Education, Employability, Employment, Entrepreneurship (SEED-4Es) held at IIT – Madras and won the Best EDC Coordinator Award.
6.	21.09.2017 To 23.09.2017	Students participated in Tamilnadu Students Innovators-2017 organized by FORGE Incubation Center KCT, Coimbatore
7.	3.10.2017 To 4.10.2017	E- Cell Leader's Workshop – 2017 for spoke college students.

8.	04.12.2017 , 05.12.2017 & 11.12.2017	Organized 3 days Orientation Program in Entrepreneurship (WFNEN100) for I Year MBA students.
9.	18.12.2017 To 20.01.2018	NEEDS – EDP 2017/2 Training Programme by EDII, Chennai
10	26.12.2017 To 28.12.2017	Conducted an E-Cell Faculty Development Programme (LW 101)
11	19.01.2018 & 20.01.2018	Students participated in National Student Startup Challenges (Yustart 2018) at IIM Bangalore and positioned in 6th place.
12	17.02.2018	Participated in 2nd Edition of the CII Salem MSME Summit with a focus on "Accelerating for Growth & Business Development " organized by CII Salem District on 17.2.2018.
13	21.3.2018 To 21.4.2018	NEEDS – EDP 2017/3 Training Programme by EDII, Chennai for New Entrepreneurs

9.7 Co-curricular and Extra-curricular Activities (10)

Students are engaged in co-curricular and extra-curricular activities and field trips through student chapters and forums, which provide opportunities for students to explore new fields of interest, cultivate leadership skills, and learn teamwork. In this regard, institution has formed various committees for participating and organizing the cultural and sports activities. Every department has its own association through which various department symposiums, project expo and other technical and non-technical events are being conducted. These association activities benefit in developing leadership skills and make them work in teams.

9.7.1 Sports Facilities

The Institution has a sports ground. There are well equipped gymnastics and sports kits. Students are encouraged to participate in various zonal and inter-zonal tournaments. Students participate in inter and intra collegiate and University tournaments. Sports day is celebrated with various sports events like Athletics, Long Jump, Volleyball, Table Tennis, Cricket, Chess, and Carom etc. both for staff and students, as part of recreation.

Sona has the following facilities:

- Cricket ground
- Indoor stadium
- Swimming pool
- Yoga & meditation centre
- Hockey ground
- Running track
- Volleyball Court
- Football ground
- Basket ball court

A well qualified physical director will manage all sport activities.

Achievements 2015-2016

Anna University Zone Tournament

S. No	Name of the Game	Venue	Date	Position
1	Table Tennis (M)	Government College of Engg., Salem	10th & 11th Aug, 2015	Third
2	Badminton (M)	Kongunadu College of Engg & Tech, Thottiam	13th & 14th Aug, 2015	Runners Up
3	Badminton (W)	Kongunadu College of Engg & Tech, Thottiam	13th & 14th Aug, 2015	Runners Up
4	Chess (M)	Salem College of Engineering & Technology, Salem	21st & 22nd Aug, 2015	Third
5	Basket Ball (M)	Paavai Engineering College, Pachal	04th & 05th Sep, 2015	Runners Up
6	Tennis (M)	Paavai Engineering College, Pachal	11th & 12th Sep, 2015	Winners
7	Foot Ball (M)	Kongunadu College of Engg & Tech, Thottiam	14th & 15th Sep, 2015	Third
8	Hand Ball (M)	Kongunadu College of Engg & Tech, Thottiam	25th & 26th Sep, 2015	Third
9	Hockey (M)	Kongunadu College of Engg & Tech, Thottiam	01st & 02nd Oct, 2015	Third
10	Athletics (M&W)	Selvam College of Technology, Namakkal	03rd & 04th Oct, 2015	B. Sivakumar IV Mech 100 & 200 mts Gold Medalist

Anna University Inter Zone Tournament

S. No	Name of the Game	Venue	Date	Position
1	Power Lifting (W)	Sasurie College of Engg, Erode	17th & 18th Jan 2016	Runners up
2	Weight Lifting (W)	RVS College of Engg & Tech, Coimbatore.	21st & 22nd Jan 2016	Second Runners up
3	Fencing (M)	Kumaraguru College of Technology, Coimbatore	31st Jan & 01st Feb 2016	Third Runners up

All India Inter University Tournament

S. No	Name of the Game	Venue	Date	Position
1	S. Rooba Kiruthiga – IV/FT Fencing	Punjabi University Chandigarh	11th to 14th February 2016	Second
2	N. Vasuki – IV/EEE Power lifting	Acharya Nagarjuna University, Guntoor , AP	12th to 15th January 2016	Participation
3	R. Pratheep – III/EEE Gymnastics	Punjabi University Chandigarh	10th to 13th January 2016	Participation

Open State & Anna University Inter Zone Tournament

S. No.	Name of the Students	Games	Venue & Date	Tournament	Position
1	N. Vasuki IV/EEE	Power lifting	Coimbatore Jan 2016	AU – Inter Zone	First
2	P.K. Shanmugapriya IV/IT	Power lifting	Chennai June 2015	Open state	Second
			Coimbatore Jan 2016	AU – Inter Zone	Second
3	S. Bhuvaneswari III/ECE	Power lifting	Chennai June 2015	Open state	Second
			Coimbatore Jan 2016	AU – Inter Zone	Second
4	S. Mahalakshmi IV/CSE	Power lifting	Chennai June 2015	Open state	Third
			Coimbatore Jan 2016	AU – Inter Zone	Second
5	K. Shanmugapriya III/IT	Power lifting	Chennai June 2015	Open state	Third
6	S. Mahalakshmi II/M. Tech/IT	Power lifting	Chennai June 2015	Open state	Third
7	B. Sathish IV/Civil	Swimming 100 m & 200 m Back stroke	NIT, Trichy Oct 2015	AU – Inter Zone	Third
8	S. Rooba Kiruthiga – IV/FT	Fencing	KCT - Coimbatore 31st Jan & 01st Feb 2016	AU – Inter Zone	Sabre Third Epee Third
9	A. Mani – III/ECE	Chess Boxing	Kolkata June 2015	National	Third
10	S. Arivalagan IV/Mech	Mr. Salem Physically challenged Body Building Championship	Salem July 2015	District	Second
11	D. Karthi III/EEE	Chess Boxing	Salem Aug 2015	Open State	Second
12	Mani III/ECE	Chess Boxing	Salem Aug 2015	Open State	Second
13	Sarathi Priyan II/MCA	Chess Boxing	Salem Aug 2015	Open State	First
14	Kirubakaran IV/MECH	Chess Boxing	Salem Aug 2015	Open State	Second
15	Vignesh II/FT	Chess Boxing	Salem Aug 2015	Open State	First
16	Arulmozhi III/ECE	Chess Boxing	Salem Aug 2015	Open State	First

Achievements 2016-2017

S. No.	Game	Venue	Date	Position
1	Tennis (M)	Sona College of Technology,	07th Aug, 2016	Winners
2	Chess (M)	AVS Engg College,	08th & 09th Aug, 2016	Winners
3	Chess (W)	AVS Engg College,	08th & 09th Aug, 2016	Winners
4	Badminton (M)	Kongunadu College of Engg and Tech	11th & 12th Aug, 2016	Runners up
5	Badminton (W)	Kongunadu College of Engg and Tech	11th & 12th Aug, 2016	Runners up
6	Table Tennis (M)	CMS College of Engg	17th Aug, 2016	Winners
7	Basket Ball (M)	Vetrivinayaha Engg College	8th & 9th Sep, 2016	Third
8	Athletics (W)	Kongunadu College of Engg and Tech	27th & 28th Sep, 2016	Third

Anna University Inter Zone Tournament

S. No	Game	Venue	Date	Position
1	Power lifting (Women)	Sasurie Academy of Engineering	19th to 21st Dec, 2016	Third
2	Fencing (Men)	Kumaraguru College of Technology	21st & 22nd Dec, 2016	Third
3	Fencing (Women)	Kumaraguru College of Technology	21st & 22nd Dec, 2016	Third

S. No.	Name of the Student	Game	Venue	Date	Position
1	N.Gokul Nath / III - CSE	Boxing	Paavai Engg College	17th & 18th Dec, 2016	Third
2	P.K.Shanmuga Priya / I - M.TECH	Power Lifting	Sasurie Academy of Engineering,	19th to 21st Dec, 2016	First
		Weight Lifting	Sasurie Academy of Engineering	19th to 21st Dec, 2016	Second
3	N.Vasuki / I - M.E	Power Lifting	Sasurie Academy of Engineering	19th to 21st Dec, 2016	First
4	S.Bhuvaneswari / IV - ECE	Power Lifting	Sasurie Academy of Engineering	19th to 21st Dec, 2016	Second
5	K.Shanmuga Priya / III - CSE	Power Lifting	Sasurie Academy of Engineering	19th to 21st Dec, 2016	Second
		Weight Lifting	Sasurie Academy of Engineering	19th to 21st Dec, 2016	Second
6	T.Sanju Priya / II - CIVIL	Fencing	Kumaraguru College of Technology	21st & 22nd Dec, 2016	Third

All India Inter University Tournament

S. No	Name of the Student	Game	Venue	Date	Position
1	T.Sanju Priya / II - CIVIL	Fencing	Guru Nanak Dev University, Amrister	18th to 27th Jan, 2017	Participation
2	N.Vasuki / I - M.E	Power Lifting	Punjab University, Chandigarh	22nd to 26th Feb, 2017	Participation
3	P.K.Shanmuga Priya / I - M.TECH	Power Lifting	Punjab University, Chandigarh	22nd to 26th Feb, 2017	Participation

Open State & Open National Tournament

S. No.	Name of the Student	Game	Venue & Date	Tournament	Position
1	P.K.Shanmuga Priya / I-M.TECH	Power Lifting	Dharmapuri 23rd & 24th July, 2016	Senior State	First
			Jamshedpur, Jharkhand 7th to 11th Sep, 2016	Senior National	Participation
			Dharmapuri 18th to 20th Nov, 2016	Junior State	First
			Coimbatore 12th to 15th Jan, 2017	Junior National	Third
2	N.Vasuki / I - M.E	Power Lifting	Dharmapuri 23rd & 24th July, 2016	Senior State	First
			Jamshedpur, Jharkhand 7th to 11th Sep, 2016	Senior National	Participation
			Dharmapuri 18th to 20th Nov, 2016	Junior State	Second
			Coimbatore 12th to 15th Jan, 2017	Junior National	Participation
3	K.Shanmuga Priya / III - CSE	Power Lifting	Dharmapuri 23rd & 24th July, 2016	Senior State	Second
			Jamshedpur, Jharkhand 7th to 11th Sep, 2016	Senior National	Participation
			Dharmapuri 18th to 20th Nov, 2016	Junior State	Second
			Coimbatore 12th to 15th Jan, 2017	Junior National	Participation
4	S. Bhuvaneswari / IV - ECE	Power Lifting	Dharmapuri 23rd & 24th July, 2016	Senior State	Second
			Dharmapuri 18th to 20th Nov, 2016	Junior State	Second
			Coimbatore 12th to 15th Jan, 2017	Junior National	Participation
7	R. Pradeep / IV-EEE	Gymnastics	Salem 27th & 28th Aug, 2016	Open State	First
8	P. Soundar / II-MECH	Gymnastics	Salem 27th & 28th Aug, 2016	Open State	First
9	S.Vigneswaran / III-FT	Boxing	Kanchepuram 15th to 17th July 2016	Rural State	First
		Chess Boxing	Trichy 6th & 7th Aug, 2016	Open State	First
10	R. Vijay / I-MECH	Handball	Hyderebad 4th to 9th Oct, 2016	Senior National	Participation
			Patna 18th to 23rd Nov, 2016	Junior National	Participation
11	P. Harsha Priya / I-FT	Yoga	Salem 27th Nov, 2016	Open State	First

ANNA UNIVERSITY ZONE VIII ACHIEVEMENTS 2017-2018

S.No.	GAME	VENUE	DATE	POSITION
1	BASKET BALL	Paavai College of Engineering, Namakkal	11.08.17 to 12.08.17	Third
2	CRICKET	Government College of Engineering, Salem	16.08.17 to 20.08.17	Winners
3	TENNIS	Sona College of Technology, Salem	04.09.17	Winners
4	HAND BALL	Paavai Engineering College, Namakkal	06.09.17	Runners Up
5	TABLE TENNIS	Muthayammal Engineering College, Rasipuram	07.09.17	Winners
6	HOCKEY	Kongu Nadu College of Engineering and Technology, Thottiam	11.09.17 12.09.17	Third
7	CHESS	VSA Group of Educational Institution, Salem	15.09.17	Third
8	CHESS (Women)	VSA Group of Educational Institution, Salem	15.09.17	Third
9	ATHLETICS (Men & Women)	Selvam Engineering College, Namakkal	19.09.17 to 20.09.17	Gowtham II/MECH L.J – Silver T.J – Bronze Gayathiri Devi/II/ECE S.P- Bronze
10	BADMINTON	Kongunadu College of Engg & Technology, Thottiam	28.09.17	Third
11	BADMINTON (Women)	Kongunadu College of Engg & Technology, Thottiam	28.09.17	Runners Up

Anna University Inter Zone Tournament 2017-2018

S. No	Game	Venue	Date	Position
1	TAKWONDO	Mailam Engineering College, Villupuram	21.09.17 to 22.09.17	Third
2	BOXING	Kumaraguru College of Technology, Coimbatore	12.11.17	Third
3	CRICKET	Loyola – ICAM, Chennai	13.12.17 to 17.12.17	Runners Up
5	FENCING (Women)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Runners Up
6	POWER LIFTING (Women)	Asian College of Technology, Coimbatore	19.01.08 to 20.01.18	Runners Up

S. No.	Name of the Student	Game	Venue	Date	Position
1	R. Vadivel – III/CSE	WEIGHT LIFTING (M)	Mountzion College of Engg & Technology, Pudukkottai	25.09.17 to 26.09.17	Bronze
2	G. Hariharan – III/ECE	WEIGHT LIFTING (M)	Mountzion College of Engg & Technology, Pudukkottai	25.09.17 to 26.09.17	Bronze
3	P.K. Shanmugapriya II/M.Tech	WEIGHT LIFTING (W)	Mountzion College of Engg & Technology, Pudukkottai	25.09.17 to 26.09.17	Gold
4	N. Vasuki – II/ME	WEIGHT LIFTING (W)	Mountzion College of Engg & Technology, Pudukkottai	25.09.17 to 26.09.17	Silver
5	P. Dinesh – III/CSE	BOXING (M)	Kumaraguru College of Technology, Coimbatore	12.11.17	Bronze
6	C. Dinesh – IV/CSE	BOXING (M)	Kumaraguru College of Technology, Coimbatore	12.11.17	Bronze
7	K. Aswin – III/MECH	BOXING (M)	Kumaraguru College of Technology, Coimbatore	12.11.17	Bronze

8	A. Hari Vignesh III/CIVIL	BOXING (M)	Kumaraguru College of Technology, Coimbatore	12.11.17	Bronze
9	H. Manoj Kumar IV-Mech	FENCING (M)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Bronze
10	G. Srivathsan/II-MCA	FENCING (M)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Bronze
11	S. Roheith/III-Mech	FENCING (M)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Bronze
12	Orsu Sandeep/I-Mech	FENCING (M)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Bronze
13	S. Sakthivel/III-Mech	FENCING (M)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Silver
14	D. Harsha Vardhan Reddy/I-ECE	FENCING (M)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Silver
15	S. Jagathesh/II-Mech	FENCING (M)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Silver
16	U. Pradeep/I-Civil	FENCING (M)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Silver
17	T. Sanju Priya/III-Civil	FENCING (W)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Silver
18	V.K. Unmai/II-EEE	FENCING (W)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Silver
19	P. Dharani/I-FT	FENCING (W)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Silver
20	R. Nehaa/I-FT	FENCING (W)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Silver
21	T. Sanju Priya/III-Civil	FENCING (W)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Silver

22	S. Akshaya/I-FT	FENCING (W)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Silver
23	R. Bhargavi/I-FT	FENCING (W)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Silver
24	P.S. Sarika/I-FT	FENCING (W)	Kumaraguru College of Technology, Coimbatore	30.12.17 to 31.12.17	Silver
25	R. Vadivel – III/CSE	POWER LIFTING (M)	Asian College of Technology, Coimbatore	19.01.18 to 20.01.18	Silver
26	L. Gokul Raj – III/ECE	POWER LIFTING (M)	Asian College of Technology, Coimbatore	19.01.18 to 20.01.18	Silver
27	P.K. Shanmugapriya II/M.Tech	POWER LIFTING (W)	Asian College of Technology, Coimbatore	19.01.18 to 20.01.18	Gold
28	N. Vasuki – II/ME	POWER LIFTING (W)	Asian College of Technology, Coimbatore	19.01.18 to 20.01.18	Gold
29	K. Shanmuga Priya IV/IT	POWER LIFTING (W)	Asian College of Technology, Coimbatore	19.01.18 to 20.01.18	Silver
30	R. Gayathiri Devi III/EEE	POWER LIFTING (W)	Asian College of Technology, Coimbatore	19.01.18 to 20.01.18	Silver

OPEN STATE AND NATIONALS 2017-2018

S. No.	Name of the Student	Game	Venue	Date	Position
1	G. Krishnakumar IV/IT	Gymnastics	Open State, SDAT – Chennai	06.01.18	**Gold**
			Open State, Anna Stadium	22.09.17	Gold
2	K. Thangarasu II/CIVIL	Wrestling	Open State, Sri RagavendraPolytechnic College, Namakkal	04.08.17 to 06.08.17	Silver
3	S. Vigneshwaran IV/FT	Boxing	Rural State, BPJ College of Arts &	12.08.17 to	Silver

			Science, Cuddalore	13.08.17	
		Chess Boxing	Open State, LFHS School, Salem	29.07.17 to 30.07.17	Silver
4	R. Vadivel – III/CSE	Power Lifting	Open State, Udumalaipet	07.05.17	Gold
			Open State, Udumalaipet	07.05.17	Silver
5	N. Vasuki – II/ME	Power Lifting	Open State, Udumalaipet	07.05.17	Gold
			Open State, Udumalaipet	07.05.17	Gold
6	P.K. Shanmugapriya II/M.Tech	Power Lifting	Open State, Udumalaipet	07.05.17	Gold
			Open State, Udumalaipet	07.05.17	Gold

9.7.2 NSS, NCC and YRC

NSS

The motto of NSS "Not Me, But You", reflects the essence of democratic living and upholds the need for self-less service. NSS helps the students to develop appreciation to others view and also show consideration to other living beings. The philosophy of the NSS is well reflected in this motto, which underlines on the belief that the welfare of an individual is ultimately dependent on the welfare of the society on the whole and therefore, the NSS volunteers shall strive for the well-being of the society.

ACTIVITIES OF NSS UNIT

NSS UNIT is organizing several useful programs for the society. The programs like Blood donation camp, free medical camp, helping towards flood affected people, Health education programs, tree plantation etc. are successfully conducted. The students and NSS volunteers of Sona are donating the blood frequently on request by the public/Hospitals through NSS coordinator. The NSS team is obtaining best NSS Volunteers and best NSS coordinator consecutively for past 10 years from Anna University, Chennai.

NCC

Sona College of Technology is committed to social and national responsibilities; bearing this in mind, we have raised the NCC Signal Coy for boys and army wing for girls from 2004-05 onwards. We believe that an individual will come to possess an adoring personality only by involving himself / herself in activities like

NCC, NSS, etc. Sona College of Technology is equipped with several infrastructure facilities like short-range firing and offers obstacle courses for NCC training program. The NCC program provides ample opportunities to the cadets by conducting firing camps, drill practices, personality development and voluntary service program. The mission and vision of our NCC wing is to create awareness about its importance and role in nation building among the student community.

YRC (Youth Red Cross)

The Red Cross is an international organization meant for humanitarian services. It is a non-religious, nonpolitical and a non-sectarian international body. YRC is a part of the Indian Red Cross Society; it was inaugurated in August, 2003 with well-defined objectives such as : Protection of Health and Life Service to the sick and the suffering by organizing. Various health camps such as eye camps, vaccination camps, health awareness, etc. AIDS Eradication

Table 9.6 Activities (NSS, NCC, YRC) in 2017-18

Name of the activity	Organising unit/agency/collaborating agency	Year of the activity (2017-2018)	Numbers of teachers participated in such activities	Number of students participated in such activities
Orphanage Visit by Sona YRC and RRC students visited an orphanage called "Thaimai Anbu Karangal" wHere we helped by joining hands together to nullify their needs	C.Thirumalai-EEE V.MurugeshsaiKrishna - MECH		4	43
Students attended to act as volunteers in Graduation Day 2017 function	C.Thirumalai-EEE		2	37
Sona YRC and RRC students took "PLEDGE" The motto of pledge is "START FREE, STAY FREE and AIDS FREE.	IRCTC		4	96

Conducted "Independence Week Celebrations 2017" includes connections, quiz, and competitions for the benefit of the student community within our campus.	C.Thirumalai-EEE S.Mohanapriya-FT	2017-2018	4	224
International Youth Day competitions at PERIYAR UNIVERSITY, Volunteers of Red Ribbon club are invited to participate. Students attended mime show, street play and poster.	R.Aswin-CSE		1	14
Students participated in MARATHON on behalf of International Youth Day, Students took pledge, the main motto of pledge is "YOUTH BUILDING PEACE"	V.Murugeshsai Krishna-MECH T.Sanjupriya-CIVIL		2	83
DENGUE AWARENESS- Sona YRC and RRC students created awareness for dengue and provided NILAVEMBU KASHAYAM within our campus.	R.Logesh-MECH N.Karthickraja-MECH		4	164
Students attended SEED BALL AWARENESS program	Sumithra-CIVIL Srivani-CIVIL		2	75
PLASTIC AWARENESS CAMPIGN - Sona YRC and RRC students created awareness for "PLASTIC FREE CAMPUS" and	P.Pugazhvanan-MECH S.Roheith-MECH		2	70

conducted RALLY, SKIT within our campus.				
We have conducted seminar on "PLASTIC AWARENESS CAMPIGN" paper bag contest are held and Prize distribution for "PAPER BAG" are done , and also distribution of free Paper bags are held within our campus.	P.Pugazhvanan-MECH S.Roheith-MECH		3	60
TREKKING- Sona YRC and RRC students went to YERCAUD for trekking.	R.Aswin-MECH A.Syedrishvana-CIVIL		3	67
Students attended to act as volunteers in "WORLD SPACE WEEK CELEBRATIONS" YRC and RRC students attended the RALLY explained the PANELS to public people.	R.Aswin-CSE A.Syedrishvana-CIVIL		5	110
Students of YRC and RRC done a parade on REPUBLIC DAY	S.Muthunarayanan-ECE S.Mohanapriya-FT		2	44

Table 9.6 Activities (NSS, NCC, YRC) in 2016-17

Name of the activity	Organising unit/agency/collaborating agency	Year of the activity (2016-2017)	Numbers of teachers participated in such activities	Number of students participated in such activities
NSS				
BLOOD DONATION AWARENESS RALLY	Sona NSS & SKS Hospital	**2016-2017**	5	300
INTERNATIONAL	Sona NSS		7	250

YOGA DAY				
ORIENTATION PROGRAM	Sona NSS		4	130
AGRI INTEX EXPO	Sona NSS & CSRI		5	120
FRESHER'S DAY	Sona NSS		8	1000
ROTARY CLUB'S BLOOD DONATION CAMP	Sona NSS & Rotary club		3	70
ALUMINI MEET	Sona NSS		4	450
INDEPENDENCE DAY	Sona NSS		22	120
SELECTION TEST-INTERVIEW (DAY-1)	Sona NSS		3	238
SELECTION TEST-INTERVIEW (DAY-2)	Sona NSS		3	238
TREKKING	Sona NSS & Salem Forest Department		4	120
QUIZ	Sona NSS		2	55
AD-ZAP	Sona NSS		2	50
TREASURE HUNT	Sona NSS		3	15
MULTIMEDIA PRESENTATION	Sona NSS		3	8
POSTER PRESENTATION	Sona NSS		3	5
PAPER PRESENTATION	Sona NSS		3	11
WORDSWORTH	Sona NSS		3	34
JUST A MINUTE(JAM)	Sona NSS		3	32
CONNECTION	Sona NSS		3	26
CLEAN INDIA			5	56
NSS DAY CELEBRATION	Sona NSS		4	110
PATTIMANDRAM	Sona NSS & Suryan FM		6	700
MEGA JOB FAIR	Sona NSS	**2016-2017**	25	5000
MEASLES RUPELLA VACCINE CAMP	Sona NSS & Government of India		4	2000
DIGITAL TRANSACTION	Sona NSS & Government of India		3	1000
REPUBLIC DAY	Sona NSS		27	100
AMRITHA AMMA'S EVENT	Sona NSS & Amirtha amma's team		20	4000
SPECIAL CAMP	Sona NSS		5	2500
ANNUAL DAY	Sona NSS		50	400
MARATHON	Sona NSS, Maruthi Blood Bank & SKS Hospital		9	700
FAKE FINANCIAL	Sona NSS & Salem Police Commissioner		4	500
NCC				
Army Attachment Camp	11TNsig Coy NCC		-	14

CATC	11TNsig Coy NCC		1	25
E-payment Awareness rally	11TNsig Coy NCC & State Bank of India		1	50
Trekking –Yercaud Hill	11TNsig Coy NCC	**2016-2017**	2	100
Swatcha Bharat Abhiyan	11TNsig Coy NCC		1	30
Pre IGC camp	11TNsig Coy NCC		-	13
Army Attachment Camp	11TNsig Coy NCC		1	18
Blood donation camp	11TNsig Coy NCC		1	20
YRC and RRC				
Conducted a Psychological Tr.Programme "Enrichment of the Mind" for the benefit of faculty members.	Sona College of Technology	**2016 – 17**	21	
Conducted a Psychological Tr.Programme "Life Coping Skills" for the benefit of faculty members.	Sona College of Technology		18	
Conducted a Psychological Training Programme "Why Coping is Essential" for the benefit of faculty members.	Sona College of Technology		18	
Conducted a Psychological Tr.Programme "A Problem Solving Approach" for the benefit of faculty members.	Sona College of Technology	**2016 – 17**	14	
Conducted a Psychological Training Programme "Memory" for the benefit of faculty members.	Sona College of Technology		22	
Conducted a Seminar on "Role of Youth in the Community" for the benefit of II,III & IV year students	Sona College of Technology			44
Conducted 70th Independence Day	Sona College of Technology			31

Celebration Events 2016 for the benefit of II & III Year students.				
International Youth Day 2016	Sona College of Technology			20
Industrial Visit to ICTC Centre, Govt. Hospital, Salem for the awareness on AIDS, HIV and ART (Anti Retroviral Therapy)	ICTC Centre, Govt. Hospital, Salem			69
COMET & COMBAT	Sona College of Technology			40
YRC / RRC Symposium, Youtz – 2K16	Sona College of Technology			124
68th Republic Day Celebrations	Sona College of Technology			76
Team Building Training	Sona College of Technology			41

Table 9.7 Activities (NSS, NCC, YRC) in 2015-16

Name of the activity	**Organising unit/agency/collaborating agency**	**Year of the activity(2015-2016)**	**Numbers of teachers participated in such activities**	**Number of students participated in such activities**
NSS				
RESURVEY	Sona NSS	**2015-2016**	4	200
ORPHANAGE VISIT-I	Anbu Illam, Thai Anbu illam		6	100
ORPHANAGE VISIT-II	Thai Illam, Don Bosco and Thai Anbu Karangal		4	150
FRESHER'S DAY	Sona NSS		17	1500

INDEPENDENCE DAY	Sona NSS		28	120
CHILD AWARENESS SEMINAR	Sona NSS & Jayam Arakattalai		5	100
TREKKING	Salem Forest Department		4	100
ROAD SAFETY PATROL	Salem Police Commissioner		7	16
SELECTION TEST-INTERVIEW (DAY-1)	Sona NSS		3	150
SELECTION TEST-INTERVIEW (DAY-2)	Sona NSS		3	150
STAMP	Sona NSS		2	8
PEN	Sona NSS		2	8
CLEAN INDIA-I	Sona NSS & Salem Junction Southern Railway		4	26
JAM	Sona NSS		3	93
THINK OUT OF BOX (DEBATE PRELIMS)	Sona NSS		3	
DEBATE FINALS			3	36
PHOTOGRAPHY			3	
PICTURE PERCEPTION			3	49
QUIZ PRELIMS			3	
PAPER PRESENTATION			3	16
MULTIMEDIA			3	
QUIZ FINALS			3	12
ONE DAY CAMP	Sona NSS, Maruthi Blood Bank and Sri Chellapa Blood Bank		5	390
CARDIAC CAMP	Sona NSS & Manipal Hospital	**2015-2016**	7	200
BLOOD DONATION SEMINAR	Sona NSS & Siva Ramji blood bank		6	550
CUDDALORE MISSION	Sona NSS		9	500

SONA BREEZE'15	Sona NSS		20	700
CLEAN INDIA-II	Sona NSS & Southern railway salem		7	100
POLIO CAMP PHASE-I	Sona NSS & Government of India		4	3100
REPUBLIC DAY	Sona NSS		28	74
DRUG AWARENESS			7	150
POLIO CAMP PHASE-II	Sona NSS & Government of India		3	2000
SPECIAL CAMP	Sona NSS		5	1368
SONATSAV-INTERCOLLEGE CULTURALS	Sona NSS		24	250
ORPHANAGE VISIT-III	Sona NSS ,Thai Anbu illam, Thai Anbukarangal and Karunya Illam		5	163
GRADUATION DAY	Sona NSS		60	1200
NEST'16	Sona NSS		5	170
NCC				
Doon Trek	11TNsig Coy NCC		-	13
Anti Tobacco rally	11TNsig Coy NCC	**2015-2016**	1	20
Mini marathon	11TNsig Coy NCC		1	20
Trekking –Yercaud Hill	11TNsig Coy NCC		2	100
YRC,RRC				
YRC / RRC valedictory and farewell function for final year students.	Sona College of Technology		2	82
Students attended to act as volunteers in Fresher's Day - 2015 function	Sona College of Technology			99
Eye Medical Camp	Lotus Eye Hospital and		101	

	Institute	2015 – 16		
Independence Day Celebrations	Sona College of Technology		3	240
Diabetic Screening Camp	IRCS-Salem Branch and SKS Hospital			16
Interview for the first year students for selection of YRC / RRC Volunteers.	Sona College of Technology			587
COMET & COMBAT training programme and industrial visit to Integrated and Counseling and Testing Centre (ICTC) Salem for the benefit of II & III year students for the awareness on HIV / AIDS	Sona College of Technology & Integrated and Counseling and Testing Centre (ICTC) Salem			70
Students volunteered his service during the Hostel Fest at Sona College Hostel.	Sona College of Technology Hostel			11
Blood Donor's Camp	Government Hospital Blood Bank, Salem			28
67th Republic Day Celebrations 2016.	Sona College of Technology			102
YoutZ '16 symposium	Sona College of Technology			276
Anti Alcohol Awareness Programme	Salem City Police Department			70

Name of the activity	**Organising unit/agency/collaborating agency**	**Year of the activity (2014-2015)**	**Numbers of teachers participated in such activities**	**Number of students participated in such activities**
NSS				
ORIENTATION PROGRAM	Sona NSS	2014 – 15	4	150
FRESHER'S DAY	Sona NSS		27	1500

TTD THIRUKALYANAM	Sona NSS		50	1000
ROAD SAFETY	Sona NSS & Salem Police Dept		6	500
INDEPENDENCE DAY	Sona NSS		37	300
SELECTION TEST-WRITTEN TEST	Sona NSS		4	150
SELECTION TEST-INTERVIEW (DAY-1)			4	150
SELECTION TEST-INTERVIEW (DAY-2)			4	150
DOG SHOW	Salem ACME Kennel Club		9	30
TREE PLANTING	Sona NSS		7	300
TREKKING	Sona NSS & Salem Forest Dept		4	100
TB AWARNESS-SEMINAR	Sona NSS & Deputy Director of Medical and Rural Health Service		6	150
ORIENTATION	Sona NSS		8	200
POND CLEANING	Sona NSS		6	200
ROAD SAFETY PATROL-INAUGRATION	Sona NSS & Salem Police Dept		9	500
EVENTS FOR NSS DAY				
QUIZ & SPEECH	Sona NSS	**2014 – 15**	3	200
DRAWING, ISSUE WITH SOLUTION, DEBATE			3	300
PHOTOGRAPHY			2	50
PICTURE-JAM & MULTIMEDIA			2	300
MUTIMEDIA & PROJECT PRESENTATION			3	50
PAPER			4	50

PRESENTATION & QUIZ FINALS				
NSS DAY CELEBRATION			7	250
SWACHCHA BHARAT ABHIYAN-CLEAN INDIA	Sona NSS& GOI		7	300
POLIO CAMP PHASE-I	Sona NSS		4	900
POLIO CAMP PHASE-II			4	900
GRADUATION DAY	Sona NSS		70	1500
ANNUAL DAY	Sona NSS		64	1000
SPECIAL CAMP	Sona Nss		4	500
SONATSAV-INTERCOLLEGE CULTURALS	Sona Nss		90	2000
DRUG AWARNESS	Sona NSS & Salem Police Dept		6	500
NEST-15 (NATIONAL LEVEL SYMPOSIUM)	Sona Nss		8	500
NCC				
Army Attachment Camp	11TNsig Coy NCC		-	10
NIC	11TNsig Coy NCC		-	10
CATC	11TNsig Coy NCC		1	18
Blood donation camp	11TNsig Coy NCC		1	30
Anti Tobacco rally	11TNsig Coy NCC	**2014 – 15**	1	30
NCC day	11TNsig Coy NCC		1	45
Trekking –Yercaud Hill	11TNsig Coy NCC		2	100
YRC and RRC				

COMET & COMBAT Training Programme for II year & III B.E/B.Tech students and visited ICTE (Integrated Counseling and Testing Centre) and HIV Centre	ICTE (Integrated Counseling and Testing Centre) and HIV Centre HIV/AIDS handled by RRC District Officials.		2	65
Anti-Tobacco Conference in honour of "World No Tobacco Day	Vasan Dental Hospitals P.Ltd & Sona College of Technology, Salem		2	200
Fresher's day Celebrations	Sona College of Technology		2	63
Independence Week Celebrations 2014	Sona College of Technology		2	214
Inauguration of Road Safety Patrol	Sona College of Technology		4	38
RSP Training Programme	Salem Commissioner of Police			90
Medical Camp for General Medical Checkup in our institution for the benefit	Sona College of Technology			867
COMET & COMBAT	Sona College of Technology	**2014 – 15**		86
139th Birth Anniversary of Sardar Vallabhbhai Patel	Sona College of Technology			240
YRC Symposium YoutZ'15	Sona College of Technology			220
66th Republic Day Parade	Sona College of Technology			68
UNICEF & ICPP(Integerated	Sona College of Technology -			2,000

Child Protection Programme)	8 locations in the city, gathering schools from nearby villages			

Table 9.8 Activities (NSS, NCC, YRC) in 2014-15

9.7.3 Other Clubs

Various clubs in the institution and training cell help to improve their confidence, communication, and other related soft skills. Each club has student Chairman from the final year and Secretary from the third year. The students from the institution who are interested in a particular club can associate themselves with the club. The Chairman and Secretary of the concerned club is responsible for conducting various awareness program for the benefit of the student.

The club details are given below:

S.No	Clubs
1	Fine Arts Association
2	Tamil Illakiya Mandram
3	Aptitude & IQ Club
4	Women's Development Wing
5	The English Club
6	Science Club
7	Tremors Club
8	Dexters' Club
9	Sona Programming Club
10	Blood Donor's club
11	Sona Radio
12	Sona sports club
13	Sonaria Music club

Fine Arts Association

SONA FINE ARTS ASSOCIATION is another precious gem in the crown of Sona College of Technology. The association not only educates and entertains the spectators, but also motivates students. Its prime aim is to explore the hidden talents of the students and offer umpteen opportunities to unearth the potential in them. SONATA, a cultural programme is celebrated by Sona family every year. It is organised by the Fine Arts Association which throws open various events for the

students to participate. The entertainment programmes include events from arts and literature which kindle the spirit of the members of Sona family. The rejuvenating and relaxing function of SONATA leaves behind an endearing and enduring effort.

Tamil Illakiya Mandram

Various activities are carried out to bring out the talents in our language. Every year activities will be conducted to showcase the talents.

Aptitude & IQ Club

The club is organizing several Box Activities which helped the students to update the aptitude, logical reasoning and pictorial reasoning. Some of the events conducted are

- Freshers Box
- Box Activity
- g –MAT '13
- I – GAP'13
- Mock discussions
- GD tournament

Women's Development Wing

Sona "Women Empowerment Cell " is a society run exclusively by girls for girls. All of its programs are aimed at achieving the dictum of Embodiment, Empowerment and Enhancement of Women.

Events conducted during 2015-2016

1. The election for the office bearers was conducted for the student nominees and following students were selected for the academic year 2015 – 2016.

CHAIRMAN **– Ms.S.Deepika**

IV year , B.E Information Technology

SECRETARY – **Ms. V.Raghavi**

III Year, B.E Computer Science and Engineering

JOINT SECRETARY – **Ms. Soundarya Lakshmi**

II Year, Master of Computer Applications

ORGANIZING COMMITTEE - Ms.S.Dhattchaini HEAD

III year, Electronics and Communication Engineering

1. Inauguration of WOMEN EMPOWERMENT COMMITTEE for the year 2015-2016 was organized on 17th October 2015 and a special guest lecture was delivered on "PCOS- awareness" for the girl students of Sona by Dr.A.Ezhilmathi, M.D., (OG) Consultant Obstetrician & Gynecologist and Dr.S.Niraimadhi , D.D Consultant dermatologist and Cosmetologist, SIMS Chellum Hospital.
2. SONA WOMEN EMPOWERMENT COMMITTEE in coordination with THIAGARAJR POLYTECHNIC had organized a special talk on "CAREER OPPURTUNITIES IN CIVIL SERVICES" by Mrs.R JayaLakshmi ., I.P.S .Intelligence Hyderabad , Andra Pradesh on 8-12-2015
3. Women Empowerment Committee in coordination with Manavalakalai organized " KAYAKALPAM" workshop for the girl students of Sona on 12-01-2016 and 13-01-2016.
4. Introductory speech on Stop the Violence – Activate workshop was be delivered by Mr.RaviShekar Sinha IRSS, Additional Divisional Railway Manager (ADRM) of Salem Railway Division.
5. A Special Workshop on "Stop the Violence – Activate " was organized by Women Empowerment Committee in coordination with The Southern railway Bharat Scouts and Guides and Prithviraj scouts group southern division for both the male and female gender students Smt.Indrani Rao , State Organizing Commissioner Guides of Sona college of technology on 11.02.2016
6. League off leonas – a platform for the girl students to exhibit their talents was conducted from 28th January to 5th February 2016 in various fields like Arts, Aptitude, Innovation and Technical events.
    - Aptitude and Quiz prelims were conducted on 28-1-2016
    - Designing debugging event and painting event were conducted on 29-1-2016
    - Paper presentation and Art from waste competition were conducted on 01-02-2016
    - Multimedia , Mehendi and Nail art were conducted on 02-02-2016
    - Quiz finals and Rangoli event were conducted on 03-02-2016
    - Speech, debate ,vegetable carving and cookery competitions were held on 05-02-2016

- Solo and Group Dance were conducted on 06-02-2016

7. International Women's day celebration preparatory meeting was conducted on 03.03.2016 at 11:30 am in Mechanical Conference hall with the committee members and faculties In charges.
8. International Women's day celebration 2016 was celebrated on 08-03-2016 in Sona Auditorium .The guests of honour for the function was Dr.G.Rubalakshmi,Ph.D,MD,GRD Bio clinical Research,Namakkal and Ms.Shylaja chetlur,Media artist anf film maker, Chennai.
    - Dr.R.Rubalakshmi gave a motivating and inspiring speech to the students regarding the development of entrepreneurship and about the bio recyclable products that are introduced in her company. She also spoke about his research work for curing cancer.
    - Ms.Shylaja Chetlur kindled the brains of the students through her speech. She discussed about the various opportunities in film industry.

Events conducted during 2016-2017

1. The election for the office bearers was conducted for the student nominees and following students were selected for the academic year 2016 – 2017.

CHAIRPERSON	**:**	**Ms.S.R.Ragavi** IV year, B.E - Computer Science and Engineering
SECRETARY	**:**	**Ms. Aparna** III Year, B.Tech - Information Technology
JOINT SECRETARY	**:**	**Ms. S.Annapoorani** II year, B.E -Electronics and Communication Engineering

2. Women Empowerment Committee meeting was held on 06.07.2016 to discuss the safety measures of girl students and calendar events for the academic year 2016-2017.
3. The Women empowerment committee of Sona college of Technology in coordination with SKS hospital has organized a guest lecture on the topic "Cancer Awareness" for female staff members on 27-10-2016. The chief guest for the function is Dr.V.Dhavashree,MBBS,DGO,DLS

(Germany),ART(Singapore) consultant obstetrician & Gynaecologist, SKS Hospital.

4. A series of special events were conducted for the girl students of Sona college of technology from 4.1.2017 to 11.1.2017
    - Quiz competition was conducted on 4.1.2017
    - Mehandi and nail art on 5.1.2017
    - Debugging code was conducted on 6.1.2017
    - Paper presentation and multimedia on "Women Empowerment " theme was conducted on 7.1.2017 to improve their presentation skills.
    - In order to improve the speaking skills "impromptu" and word connection game was conducted on 8.1.2017 and 9.1.2017.
5. Dance competition for girl students were conducted on 4.3.2017.
6. Women's day celebration 2017 was organized on March 8th 2017 . the chief guest for the function were 1)Dr. Savitha Rani.M.,a Head, Training and Placement Department, Ramaiah Institute of Technology, Bangalore .2)Mrs G.Rajalakshmi, COO & Director, Cenza Technologies Private Limited, Chennai.
7. Women Empowerment committee in coordination with the KOFUKAN SHITO – RYU KARATE SCHOOL INDIA, affliated by Karate Association of India (KAI) , Asian Karnataka- Do federation .World karate – Do federation .recognized by : Govt of India.(Ministry of youth affairs) has organized a Silambam workshop from 3.3.2017 to 23.3.2017 from 5:00p.m – 6:00p.m.
8. A team of six faculty members from various departments of Sona College of Technology attended the NHRD Hosur Chapter International Women's day 2017 celebration on 30-3-2017 at Hosur.
9. NHRD Hosur Chapter organised a "Special Industry Visits" for the Lady Faculty members of Engineering Colleges on the eve of "International Women's day celebration 2017" on 30-3-2017. Women Empowerment committee of Sona College of Technology, arranged a team of six faculty members from various departments and visited the following companies

    - Luk India private Limited
    - Field Fresh Private Limited

Events conducted during 2017-2018

1. The election for the office bearers was conducted for the student nominees and following students were selected for the academic year 2017 – 2018.

CHAIRPERSON	**:**	**Ms.A.S.NIVEDITHA** IV year, B.E – Mechanical Engineering
SECRETARY	**:**	**Ms.R.KIRUBA** III Year, B.E - Electronics and Communication Engineering
JOINT SECRETARY	**:**	**Ms. A.SIVAPPRIYA** II year, B.Tech – Information Technology

2. The Women Empowerment Committee inaugural function for the academic year 2017- 2018 was conducted on 25.09.2017 .The chief guest for the function was Dr.Jayanthasri Balakrishnan, M.A, M.Phil., Ph.D (English)., M.Ed., M.A., Ph.D(Tamil) , former professor of English in PSG college of Arts and Science, Coimbatore and Public speaker).A motivation speech was delivered by the chief guest under the topic "**Values that women stand for to build a strong society: Need of the hour"** for second year UG girl students.

    - Prof.Dr.Jayanthasri Balakrishnan through her inspirational and thought provoking speech kindled the minds of all the students and the faculty members. She spoke about the importance of our culture, family values and the self respect that a woman should possess and also about the respect that a woman should give for the society, family members and others. She spoke about the significance of parent's role in growing their children to face the society with more moral and cultural values. She also asked all the members to take a silent oath of "Say no gossip about any growing women". She concluded the speech by highlighting the importance of parents and teachers in everyone's life. The entire speech was very meaningful.

3. A series of special events were conducted for the girl students of Sona college of technology as "Ms .Geek 2K18" from 18.1.2018.The details of the events are as follows

DATE	EVENT NAME	DESCRIPTION
18.01.18	ADZAP	Marketing the given technical product in commercial and fascinating manner
18.01.18	VISION	Showcasing the artistic talent by drawing, painting and craft modeling
19.01.18	SHE HACKS	Debugging the given code using C and C++
19.01.18	FACE OFF	Debate in the given topic
20.01.18	LA-FEMME	Mehandi , Nail Art, Hair styling ,Cookery
24.01.18	JAM	Speaking in the given topic for one minute
24.01.18	Ms . FUNNY BONES	Stand up comedy on stage
01.02.l8	RJ AND VJ	Radio and video jockey
10.2.18	LILT AND VOCAL QUEST	Solo and group singing and dancing
13.3.18	Paper presentation	Presentation on women safety
13.3.18	Multimedia presentation	Audio and video presentation on women safety

4. Logo Design contest for Women Empowerment committee was conducted on 21-2-2018

5. Sona Women Empowerment committee in coordination with Jewel one conducted a Jewelry design and slogan contest for women on the eve of Women's day on 8-3-2018.

6. The Women Empowerment Committee of Sona College of Technology & Women in Development of Thiyagarajar Polytechnic College, in association with the Institution of Engineers India (IEI) ,Salem Local centre, salem

celebrated the International women's day 2018 on 16.03.2018 at 10 a.m in Sona auditorium .The chief guest for the function is **Smt. Rohini Bhajibhakare, IAS, District Collector, Salem & Guest of Honour is Dr. R. Aruna Devaraj, Herbal Scientist, Director & Founder - Natural Resource Management Trust, Theni.**

7. To commemorate the International Women's Day, **CII Indian Women Network (IWN) Tamil Nadu** in association with **Sona College of Technology** organised **'Conclave on Women@360'** with the theme **'PRESS for PROGRESS' on Wednesday, 28th March 2018 from 10:00a.m to 12:30 p.m at PG Auditorium, Sona College of Technology, Salem.** The conclave comprises of address by prominent leaders from different fields who would share their thoughts on What Women Empowerment means to them. There would be life experience sharing and also inspiring message on how they have pressed forth towards progress. The speakers for the Conclave are:

   - **Dr K Banumathi,** Director – PSG OHCMS & PSG Vishnugranthi
   - **Mr C Devarajan,** Managing Director – URC Construction (P) Ltd
   - **Ms Fathima Bathool Maluk,** CEO & Secretary – Master Group of Institutions & Founder – Orchids Services
   - **Dr D Ramesh Kumar,** Chairman – CII Salem & Managing Director – Salem Microbes Pvt Ltd
   - **Ms Ranjana Singhal,** Partner – The Terra (That's Y Food, On the Go) & Managing Director – Café Totaram Pvt. Ltd
   - **Ms Sangeetha Flora,** Centre Head – First American India, Salem
   - **Ms AVR Soumya Sanjjay,** Director – AVR Swarnamahal Jewelry Pvt Ltd

The English Club

The English Club is exclusively dedicated to help students get better on their communication skills and language providing them a platform to showcase their best.

Science Club

To commemorate the Nobel laureate Sir C. V. Raman Science day is celebrated every year on his birthday.

Tremors Club

This club, a student initiative, was started for making Salem, a better place to live in. The main objective of the club is to address the environmental and some of the most important socio-economic problems which are hampering the overall growth of our city by conducting activities such as tree plantations, photo exhibitions, education for all, awareness camps, etc. The events and activities that are taken up by our club go beyond creating awareness to bring in changes in the society that we live in. We aim to go beyond being a club and become a youth movement.

Dexters' Club

Dexters' club is an initiative by the students for the students. We focus on the Creativity, Technology and Presentation of the students and to inculcate the peer to peer learning. The DEXTERS' club would invent the inborn talents of the students. We would create an impulse that would relate their passion and engineering. It provides a space for awaited intellects and techies to explore their ideas. The club would initiate unique activities, events, workshops and seminars. The club was named DEXTERS to have its origin from the root word dexterity which emphasis skills and the club triggers the Engineering skills of students.

Sona Programming Club

SProC (Sona Programming Club) has been started in order to improve the programming skills of the students. The major objectives of this club are to motivate students to learn programming with enthusiasm, teach various methods of solving programming problems in different points of view, and improve the programming skills of students.

Blood Donor's club

Setting the standards, nowadays, is quite common for Sona, not only in the academics, but also in various other extra curricular activities catering to the improvement in the area of humanity, social service, awareness and the key critical elements of the society. Definitely, service oriented, with no references, no preferences, has been the ultimate objective of Sona's blood club. Life is the most precious and it is an irretrievable one. Our students have always risen to the occasion and have rendered timely help as in the following emergency cases :

- Four students rushed to Abhaya Hospitals, Bangalore to save the life of Mrs.Shanthi, who suffered from a gastro problem.
- Prof.Gopalan of Sowdeswari college, was given two units of blood for an open heart surgery at Vijaya Hospitals, Chennai.
- Charity begins at home; justifying this, two staff members and three students donated five units of blood to a second year student of our Sona family.
- Two of our students saved the lives of two new-born babies by donating blood

Sona Radio

Started with an aim to change the way the students communicate with the staff and management. Focussing mainly on the convergence of technology, provides quality entertainment to students. Converting "Academic Achievements into Professional Excellence" is the motto of our college. **SONIC** will work hand in hand to achieve our colleges' goal.

Sona sports club

Sona College of Technology offers a plethora of opportunities to the staff and students to stay fit and fine both mentally and physically. The various indoor and outdoor games facilitate rejuvenation to the mind, body and soul. Students have bagged several awards at district, state and national levels thereby escalating the status of the college.

Sonaria Music club

SONARIA', The Music Club of Sona was started in January 2001. The objective of this club is to bring to the fore the latent skills of the students in the field of music and to import world class training to the learners in various areas of music to ultimately promote Indian and Western Music culture. The music club has Trinity certificate obtained and most experienced music teachers both for the vocal and instrumental music. The club is equipped with state-of-the-art music instruments such as

1. Keyboard-yamaha psr 740
2. Rhythm pad-spd20
3. Givson electric and hollow guitars
4. Violin
5. flute
6. Jazz drums set
7. Thabla, etc.

CRITERION 10

GOVERANCE, INSTITUTIONAL SUPPORT & FINANCIAL RESOURCES

CRITERION 10	Governance, Instituitional support and Financial Resources	120

10.1 .Organization, Governance and Transparency

Sona College of Technology, one of the top ranking engineering colleges in India, has achieved global identity through its involvement in research in recent technology and successful completion of projects and products. Situated in Salem, Tamilnadu, the southern part of India, Sona is the best destination for engineering aspirants. The college offers Bachelor of Engineering, Master of Engineering and doctoral degree (Ph.D) in all major disciplines. Sona which is an ISO Certified Institution, is known for its rich tradition and high values bestowed upon it by its Founder Chairman, Thiru. M.S. Chockalingam. Sona College of Technology has been accorded recognition as a Scientific and Industrial Research Organisation (SIRO) by the Department of Scientific and Industrial Research, New Delhi. This will entitle Sona to receive administrative support on issues that promote and encourage scientific research activities. The "AICTE – CII Award for Best Industry – Linked Technical Institute in India 2017" and an acclaimed 'A' grade by '**NAAC**' stand testimony to the commitment of the college to impart quality education. The College is equipped with world class infrastructure and highly qualified and experienced faculty members. Sona's sharp focus on quality education and training has turned it into a premier technical institution ensuring 100% placements in a wide range of companies. In short, Sona stands tall as one of the best institutions for world class professional education.

10.1.1 State the Vision and Mission of the Institute

VISION OF THE INSTITUTE

To become an institute of great repute in the fields of Science, Applied Science, Engineering, Technology and Management studies by offering a full range of programmes of global standard to foster research and transform the students into globally competent personalities.

MISSION OF THE INSTITUTE

- To offer Graduate, Post-graduate, Doctoral and other value-added programmes beneficial for the students
- To establish state-of-the-art facilities and resources required to achieve excellence in teaching-learning, and supplementary processes
- To provide Faculty and Staff with the required qualification and competence and to provide opportunity to upgrade their knowledge and skills
- To motivate the students to pursue higher education, competitive exams, and other value added programmes for their holistic development
- To provide opportunity to the students to bring out their inherent talent
- To establish Centres of excellence in the emerging areas of research
- To have regular interaction with the Industries in the area of R&D,and offer consultancy, training and testing service
- To offer Continuing education, and Non-formal vocational education programmes beneficial to the society

10.1.2 Availability of the Institutional Strategic Plan and its Effective Implementation and Monitoring

We at SONA believe in FAMILY KIND (Always we used to say SONA FAMILY) of work culture. Basically it aims at love and affection to each and every stake-holder of the institute. In particular, the concept of process owners, which facilitates a perfect decentralization of activities and delegation of authorities, has proven itself to be a key concept in the success achieved by the institute on different counts. The working methodology is basically learners (students) centric, which serves as the dearest and highly responsible element of the system.

It is also committed to provide quality education to the students enabling them to excel in the fields of Science, Engineering, Technology and Management to cater to the changing and challenging needs of society and industry through the following initiatives:

- Contributing to the academic standing and overall knowledge development of the students

- Maintaining state-of-the-art infrastructure and congenial learning environment
- Enhancing the competence of the faculty to a very high level and to make them adopt all modern and innovative methods in teaching-learning process
- Inculcating moral and ethical values among the students and staff Collaborating with industry, other institutions and organizations for mutual benefit.
- Promoting Research and Development programme for the growth of the economy.
- Disseminating technical knowledge in the region through continuing education programmes.
- Ensuring continual improvement of Quality Management System(QMS)

Involvement of each and everyone in the decision-making at their respective levels is ensured through decentralization and delegation of powers. There are various institutional committees consisting of principal, senior professors and faculty members and transparency associated therein also forms an important feature of the work culture. This is done through an institutional rule book and code of conduct document which is easily accessible by any one as the copies are available in the library, with the HODs and the Principal. It is also available in our website www.sonatech.ac.in.

Sona has constituted various committees headed by the principal or faculty members of various departments for various roles, responsibility. Periodic management and committees review meeting will be held in order to make some effective decision on the different aspects of administration and academics and to make sure that we move in a correct direction.

The strategic plan in brief is as follows:

Improving Under Graduate (UG) and Post Graduate (PG) Education by incorporating Modern Teaching Learning methods.

Increased initiative to be taken to get funds from the Department of Science and Technology, UGC and other funding agencies.

Focus on developmental aspects such as student intake, curriculum improvement, infrastructure enhancement, accreditation and twinning programme with foreign university.

Improving Research and Development, Industry Interaction, Internal Revenue Generation,
Collaboration with Foreign Universities, Alumni Interaction, Entrepreneurship, and Social Responsibility Initiatives.
Envisioning the establishment of a deemed university and aiming to offer world-class education and research through reputed international collaborations.

Example of successfully implemented strategic plan

The strategy to implement: Improving Under Graduate (UG) and Post Graduate (PG) Education by incorporating Modern Teaching Learning methods.
Learning Management System (LMS) for the academic and knowledge development of the students is successfully implemented in our campus.

The LMSs used are:

1. Black board
2. Lecture Capturing System

1. Black Board

SONA has adopted Blackboard (Bb) LMS in teaching learning process for improving the quality of course delivery. SONA has taken the following steps to improve the effective usage of Bb in the college.

- A core team from IT department is constituted to take the responsibility of implementing and monitoring the working of Bb. The team has ensured that the services of Bb can be accessed from outside through a public domain (https://sonalearn.org) as well as within a college through intranet (https://172.2.2.2).
- As per the instruction of SONA management, the Bb core team supports and helps the faculty members and students to access Bb services from trusted devices such as desktop, laptop, mobile etc. by creating a non-exportable client certificate. Users should have installed the client certificate in his/her devicefor accessing Bb services.
- The core team gives training to all the faculty members of the college on the following services of Black board.
    - Uploading a course contents and assessment patterns
    - Uploading assignments with rubrics and evaluating assignments

- Checking plagiarism on the assignments submitted
- Creating discussion forums for the courses
- Tracking student participation in the enrolled courses
- Making announcements

- At the beginning of each semester, the core team will interact with each department Bb coordinators for collecting the faculty workload. According to the information, faculty and student will be enrolled for the courses created in Bb. Students will be getting the access to course content, assignment and assessment posted by the faculty once they login into Bb.
- The core team conducts the Bb review meeting once in a month for monitoring the usage of Bb by the department faculty and students. In this regard, the department Bb coordinators need to submit their department usage report which has the following information
    - Total Hits in the courses
    - Total Time in the courses
- Apart from the courses in the curriculum, the departments are using the Bb services for conducting GATE courses and continuing education programmes.

2. Lecture Capturing System (LCS)

- The Sona College of Technology has implemented the Lecture Capture System, one of the teaching learning processes. It is a Comprehensive Video-Based Learning Platform used by our students. The Lecture capture system has been installed in 60 classrooms, covering 8 courses from 8th July 2016.
- Lecture Capture system is an automated audio-video recording solution for class room lectures. It provides access to classroom video lectures and activities in online. Students are accessing the recorded video lectures and other materials by using internet URL: http://182.73.107.187/login, a.impartus.com outside the campus. The students can access the videos through Intranet also, link http://172.21.1.2/login/ inside campus. Totally 315 professors are using the Lecture Capture solutions and 2800 Students are watching the video lectures through laptops, tablets and Android platform.

Benefits for Professors

- Help to improve the overall teaching performance.
- Improve the student test performance.
- Chance to correct unfortunate mistakes during classroom lectures.
- Improve content and delivery of classroom lectures.
- Review our own lectures.
- Improve the communication and teaching skills.
- Brought a self –awareness.
- Review specific topics and sections of lectures after completion of lectures.
- Absent students can also access this lecture.
- Students to have a recap of the lessons taught in the class.

Benefits for Students

- Accessible all the lectures anytime, anywhere.
- Watch the missed lectures during absent the class.
- Review all the important concepts many times.
- Spend less time for preparation of examination.
- Good for reviewing the topic which is not clearly understood.
- Help to improve the academic performance.
- Give more confidence while preparing for exams.
- Achieve a deeper and more current understanding.
- Availability of all contents at one place.

Also, Sona has constituted Management Review and Academic audit committees for monitoring the institutional strategic plan and its effective implementation. Table 10.1 describes the list of members in Management Review Committee (MRC).

Table 10.1 Management Review Committee

Sona-Constituted Committees			
Management Review Committee (MRC of Sona-QMS)			
S. No.	Name	Category / Role in the Committee	Designation
1	Dr. S.R.R. Senthil Kumar	Chairperson	Principal

2	Dr. C. V. Koushik	Academics	Director/Academics
3	Dr. J. JebaEmilyn	Management Representative	SONA QMS - Coordinator
4	Members	All Departments, Research Centres, Administrative Functions, Hostels, Sports and Other Specific Functions	• All HODs/Directors • PG Deans • Director/HR • COE • Librarian • Sports Director/PD • Member Secretary – Academic Council • Administrative Officer/s • Administrative Function Heads • (Purchase and Stores, Accounts, Student Training and Placement, Continuing Education, Transport, MIS, PR, etc) • Sr. Executive – Hostels

Functions:

To review findings of the internal audits of Sona-QMS as also to formulate improvements in established quality processes.

Frequency of Meeting: Twice a year

The following Table 10.2 describes the list of members in Academic Audit Committee.

Table 10.2 Academic Audit Committee

Academic Audit Committee			
S.No	**Category**	**Designation**	**Name**
1.	Chairman	Principal	Dr. S.R.R. Senthil Kumar
2.	Member Secretary & Convener	Audit Coordinator	Dr. R. Shivakumar
3.	Members	Internal Auditor – Mech	Mr.K.G.Saravanan
4.		Internal Auditor – EEE	Dr.R.Shivakumar
5.		Internal Auditor – Civil	Dr.S.Suresh
6.		Internal Auditor – ECE	Dr.R. Vinodhkumar
7.		Internal Auditor - CSE	Dr.A.C.Kaladevi
8.		Internal Auditor – EEE	Dr.J.Senthilkumar
9.		Internal Auditor – FT	Mrs.S.Priyalatha
10.		Internal Auditor – MBA	Mrs.S.Sathyakala
11.		Internal Auditor – MCA	Dr.M.Geetha
12.		Internal Auditor – Science and Humanities	Dr.V.Balasubramanyan

Functions

- To conduct audit of the academic departments which involves the teaching & learning process.
- To conduct audit of the Office of the COE for the proper conduct of internal and semester end examinations.
- To conduct audit of the evaluation process for continuous internal assessment.
- Frequency of Meeting: At least twice a year.

ORGANISATIONAL STRUCTURE

Sona has well defined organization structure which is shown in Figure 10.1 and accordingly, the administrative decisions are carried out. It shows the hierarchy of academics and administration is to be included.

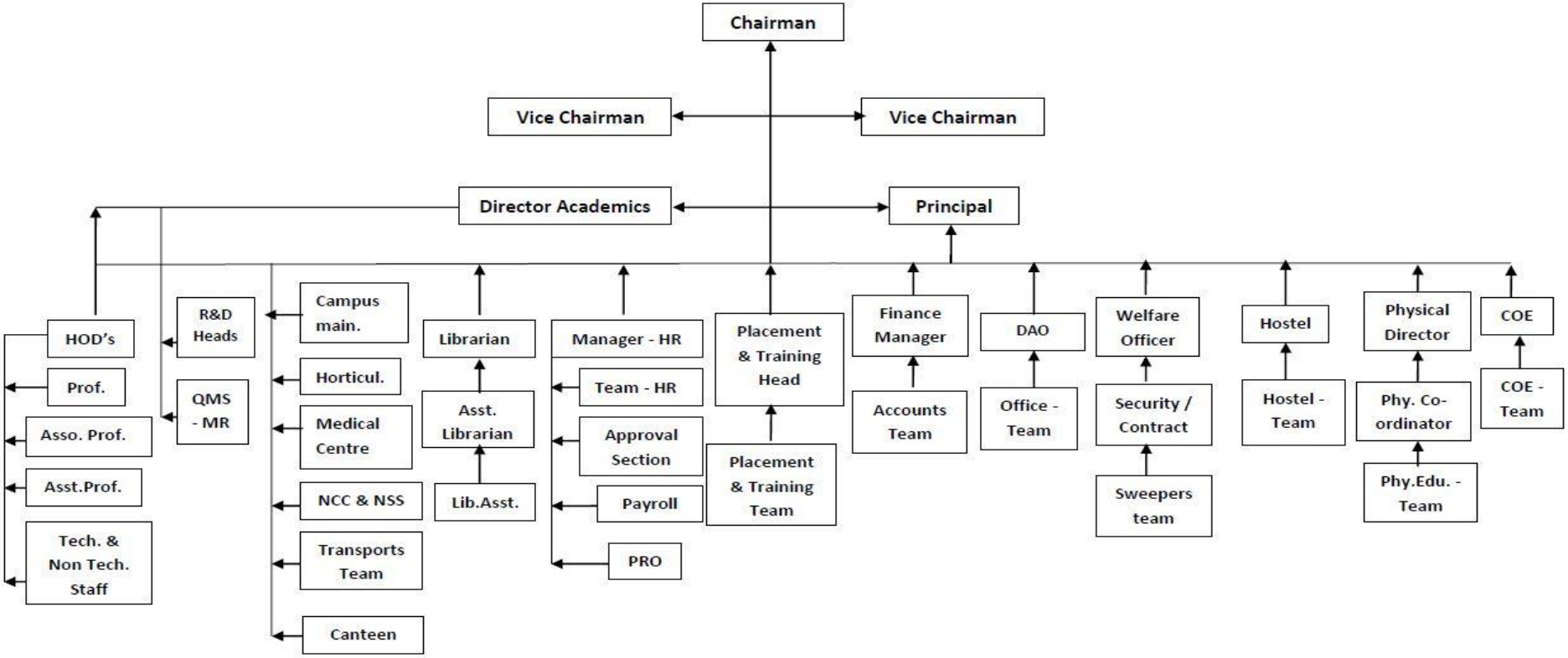


Figure 10.1 Organizational Structure

10.1.3 Governing body, administrative Setup, functions of various bodies, service rules, procedures, recruitment and promotional policies

10.1.3.1 Governing body, administrative setup, functions of various bodies

Sona has various committees under governing body, administrative setup. Table 10.3 describes the list of committees under statutory bodies, non-statutory and externally constituted committee and the functions of various bodies are also mentioned.

Table 10.3 List of committees

I – Statutory Bodies and Committees				
S. No.	Statutory Body/Committee	Mandated by Whom	Meetings per Year	List of Members
1	Governing Body (GB)	UGC	One	Enclosed
2	Academic Council (AC)	UGC	One	Enclosed
3	Discipline-wise Boards of Studies	UGC	As many as required	Enclosed
4	Finance Committee	UGC	Two	Enclosed
5	Planning and Monitoring Board	AU	Two	Enclosed
6	Anti-Ragging Committee (and Anti-Ragging Squad)	AU*	Two	Enclosed
7	Women Empowerment Cell	UGC (and AICTE)	Two	Enclosed
8	Complaints and Redressal Committee	AU*	Two	Enclosed
9	Discipline and Welfare Committee	AU	Two	Enclosed
II – Non-Statutory Committee				
10	Management Review Committee (Sona-QMS)	Sona - Constituted	Two	Enclosed
III – Externally-Constituted Committee				

11	Grievance Redressal Committee	AICTE	Constituted by Anna University, using AICTE guidelines, with five external members only for redressing grievances from students/staff/parents/etc. One Sona faculty appointed Coordinator to report grievance cases to AU-appointed Ombudsman Coordinator for Sona: Dr. M. Renuga, HOD/H&L

1 - Governing Body

The following Table 10.4 shows the list of members in governing body committee.

Table 10.4 Governing Body

1 – Governing Body			
S. No.	**Name**	**Category**	**Designation**
1	Mr. C. Valliappa	Management	Chairman, Sona College of Technology, Salem
2	Padma Bhushan Dr. R. Kumar	Educationalist	Professor, IISC, Bengaluru
3	Dr. V. Veerappan	Industrialist	Co-Founder &President,Tessolve Semiconductor Private Ltd, Bengaluru
4	Mr. T. R. Parasuraman	Industrialist	Deputy Managing Director, Toyota Industries Engine India, Bengaluru
5	Dr. S. Xavier Alphonse SJ	Educationalist and Special Nominee of the Chairman	Co-ordinator Jesuit Higher Education Commission, Tamil Nadu Former UGC Nominee & Former Principal of Loyola College, Chennai
6	Dr.(Ms).VimalRarh	UGC Nominee	Assistant Professor, Department of Chemistry, SGTB Khalsa College, Delhi
7	Dr. D.Shobha	State Government Nominee	Associate Professor, Civil Engineering, Government College of Engineering, Salem
8	Dr. M. Madhusoothanan	Anna University Nominee	Professor & Head, Dept. of Textile Technology, Anna University, Chennai

9	Mr. ChockoValliappa	Management	Vice Chairman, Sona College of Technology and Founder & CEO, Vee Technologies, Bengaluru
10	Mr. ThyaguValliappa	Management	Vice Chairman, Sona College of Technology and Founder & MD, SonaValliappa Group, Bengaluru
11	Dr. C. V. Koushik	Academics	Director – Academics, Sona College of Technology, Salem
12	Dr. R. Malathy	Teacher of the College	Professor & Head Department of Civil Engineering Sona College of Technology, Salem
13	Dr. J. Akilandeswari	Teacher of the College	Professor & Head Department of Information Technology Sona College of Technology, Salem
14	Dr. S.R.R. Senthil Kumar	Ex-officio (Member Secretary)	Principal Sona College of Technology, Salem

Special Invitees

1. Dr. V. Jayaprakash - Director – Industry Connect, Sona College of Technology,Salem
2. Mr. G. Goudhaman - Chartered Accountants, Salem.
3. Dr. V. Karthikeyan, Principal, Thiagarajar Polytechnic College, Salem

Terms of Reference(As stated in from UGC website)

Functions: Subject to the existing provision in the bye-laws of respective college and rules laid down by the state government, the Governing Body* of the above colleges shall have powers to:

- Fix the fees and other charges payable by the students of the college on the recommendations of the Finance Committee.
- Institute scholarships, fellowships, studentships, medals, prizes and certificates on the recommendations of the Academic Council.
- Approve institution of new programmes of study leading to degrees and/or diplomas.

Perform such other functions and institute committees, as may be necessary and deemed fit for the proper development, and fulfil the objectives for which the college has been declared as autonomous.

Term of Office:

Two years, except for the UGC Nominee whose term will be a full six years

Frequency of Meeting

At least twice a year

2 - Academic Council

The following Table 10.5 shows the list of members in Academic Council committee.

Table 10.5 Academic Council

S. No.	Category	Name	Designation
1	Chairman	Principal	Dr. S.R.R. Senthil Kumar
2	Academics	Director	Dr. C.V. Koushik
3	Deans and Heads of the Departments	1. Director - MBA	Dr. Swarup K Mohanty
4		2. Director – MCA	Dr. G.M.Kadhar Nawaz
5		3. HOD – FT	Dr.G.Gunasekaran
6		4. HOD – EEE	Dr.S.Padma
7		5. HOD – CSE	Dr. B. Sathiyabhama
8		6. HOD – MECH	Dr.D.Senthilkumar
9		7. HOD – IT	Dr. J. Akilandeswari
10		8. HOD – ECE	Dr. R.S.Sabeenian
11		9. HOD – Civil	Dr.R.Malathy
12		10. HOD – Sciences	Dr.C.Shanthi
13		11. HOD – First Year & Humanities	Dr. M. Renuga
14		HOD – Mathematics	Ms.S.Jayabharathi

15	Four Teachers of the college	Controller of Examinations	1. Dr.S. Radjarejesri
16		Professor – EEE	2. Dr. S.Chandrasekar
17		Associate Professor – FT	3. Dr.M.B.Sampath
18	Five Experts representing from all branches of Engineering	Professor – MCA	Dr.T.Padma
19		Professor – IT	Dr.V.Mohan Raj
20		Principal, B.N.M Institute of Technology Bangalore.	Dr. G.N. Krishnamurthy
21		Head, Academy Interface Program, TCS, Chennai.	Dr.A.K.Pattabiraman
22	Three nominees of the Anna University, Chennai	Indian Machine Tools Manufacturers Association, Bengaluru.	Mr.Rajashekara
23		Vice President, Bosch Group, Bengaluru.	Mr.V.Jagadeesh
24		Professor and Head Department of Mechanical Engineering, Refrigeration and Air conditioning division, Anna University, Chennai-25.	Dr.D.Mohanlal
25		Professor and Head Department of Civil Engineering Thanthai Periyar Government Institute of Technology, Vellore-632 002.	Dr.V.Kumar

26		Principal Incharge, Professor and Head Department of Mechanical Engineering Alagappa Chettiar College of Engineering and Technology, Karaikudi – 630 003.	Dr.A.Elango
27	Placement	Advisor, Placement	Prof.B.Saravanan
28	Training	Training Cell Head	Dr. S. Anita
29	Member Secretary/ Academic Council (Nominated by the Principal)	Professor – EEE	Dr.R.Shivakumar
30	Immediate past- Member Secretary/ Academic Council	Professor – CSE	Dr.A.C.Kaladevi
31	QMS Coordinator	Associate Professor – IT	Dr.J.Jeba Emilyn

Functions: In the Academic Council body, the teachers like the Principal, Directors, Deans, Heads of the departments, subject expert teacher, etc, act as members to take decision about the academic plan, implementation of academic strategies, quality improvement decision, etc, for the development of the college and to review all academic matters of Sona College and provide guidance and advice to the college in maintaining a high academic standard.

Frequency of Meetings: At least once a year

3 - Board of Studies

Discipline-wise Board of Studies (List of BOS members)

Board of Studies have been constituted for the following branches of study.

1. Mechanical Engineering
2. Electrical and Electronics Engineering
3. Computer Science and Engineering
4. Electronics and Communication Engineering
5. Information Technology
6. Civil Engineering
7. Fashion Technology
8. First year UG Engineering / Technology Programmes
9. Master of Business Administration
10. Master of Computer Applications.

Functions: To review the curriculum and syllabi of the programme/discipline concerned and provide relevant guidance and advice such that the programme/s are always in keeping with current industry requirements

Frequency of Meetings: As many times as necessary

The following Table 10.6 shows the list of members in Board of Studies in Department of Electronics and Communication Engineering.

Table 10.6 BoS members of Electronics and Communication Engineering

S. No.	Category	Designation	Name
	Chairman	Professor & Head	Dr. R. S. Sabeenian
	Faculty of each specialization	Professor	Dr. R. Vinod Kumar
		Assoc. Professor	Mr. J. P. Senthil Kumar
		Assoc. Professor	Ms. S. Deepa
		Assoc. Professor	Dr. K. R. Kavitha
		Assoc. Professor	Dr. N. Sasirekha
		Assoc. Professor	Mr. J. Harirajkumar
		Assistant Professor (Sr.G)	Ms. M. Jamuna Rani
		Assistant Professor (Sr.G)	Ms. T. Shanthi
		Assistant Professor (Sr.G)	Dr. K. Anguraj
		Asst. Professor	Dr. S. Jayapoorani

		Asst. Professor	Dr. G. Ravi
		Asst. Professor	Ms. P. Priya
		Asst. Professor	Dr. S. Vijayalakshmi
		Asst. Professor	Ms. K. Manju
		Asst. Professor	Ms. M. Senthil Vadivu
	Two Experts in the discipline from outside the college to be nominated by the academic council	Assoc. Professor, Department of ECE, National Institute of Technology, Tiruchirappalli - 620015.	Dr. M. Bhaskar
		Associate Professor Department of Electronics, Madras Institute of Technology, Chennai - 600044	Dr. P. Prakash
	One Expert to be nominated by the vice-chancellor	Associate Professor Department of ECE, CEG, Campus, Anna University, Chennai - 600025	Dr. K. Malathi
	One representative from industry / corporate sector / allied area relating to placement	Engineer-H, Retired Project Director, IRNSS, Bengaluru	Mr. K. N. Suryanarayana Rao
		Project Manager L&T, Bengaluru	Mr. V. Vinoth
		Project Manager Jasmine Infotech, Chennai	Mr. N. Prabhakaran
		Lead System Engineer Wipro GE Health Care, Bengaluru	Mr. Arunesh Karthik
		Director Sinetec Technologies, Coimbatore.	Mr. A. P. Sivaraman

		CEO VI Solutions, Bengaluru	Mr. Sunil Kumar
	One postgraduate meritorious alumnus to be nominated by the Principal	Assistant Professor(Sr.) School of SENSE VIT University, Vellore – 632 014.	Dr. V. Rajeshkumar
	Senior students from the third/final year	Student	Ms. B. Kaviya
		Student	Ms. G. Anusuya
		Student	Ms. M. Priyanka
		Student	Ms. S. Soundharya
		Student	Ms.G. Devi Meenakshi
		Student	Mr. M. S. Nithish
		Student	Mr. S. Sriram

Functions: To review the curriculum and syllabi of the programme/discipline concerned and provide relevant guidance and advice such that the programme/s are always in keeping with current industry requirements

Frequency of Meeting: As Many Times as Necessary

4 - Finance Committee

The following Table 10.7 shows the list of members in finance committee.

Table 10.7 Finance committee

4 – Finance Committee			
S. No.	Name	Category / Roll in the Committee	Designation
1	Sri. C. Valliappa	Management	Chairman
2	Sri. ChockoValliappa	Management	Vice Chairman
3	Sri. ThyaguValliappa	Management	Vice Chairman

4	Dr. S.R.R. Senthil Kumar	Person nominated by the Governing Body	Principal
5	Dr. C. V. Koushik	Academics	Director/Academics
6	Dr. C. Easwarlal	One senior-most teacher of the college nominated by rotation by the Principal for two years	Professor – EEE
7	Sri. R. Srivatsan	Chartered Accountant	Auditor
8	Sri. K. Ganesan	Member Secretary	Finance Manager
9	Sri. V. R. Lakshminarayanan	Accounts Officer	Accounts Officer

Functions:

To be an advisory body for the Governing Body

To consider budget estimates relating to the grant received/receivable from UGC, and income from fees, etc collected for the activities to undertake the scheme of autonomy

To audit accounts for the above

Frequency of Meeting: At least twice a year

5 - Planning and Monitoring Board

The following Table 10.8 shows the list of members in Planning and Monitoring Board.

Table 10.8 Planning and Monitoring Board

5 – Planning and Monitoring Board			
S. No.	Name	Category / Roll in the Committee	Designation
1	Sri.ThyaguValliappa	Management	Vice Chairman
2	Dr. S.R.R. Senthil Kumar	Chairperson	Principal
3	Dr. C. V. Koushik	Academics	Director/Academics

4	Dr. R. Malathy	Senior faculty member of the college	Professor / CIVIL
5	Dr.D. SenthilKumar	Senior faculty member of the college	Professor / MECH
6	Dr. M. Madheswaran	Senior faculty member from another college	Principal, Mahendra Engineering College, Namakkal
7	Mr. B. E. Rajendran	Industrial expert in the field of engineering and technology	Associate Vice-President/HR, JSW Steels Ltd, Salem
8	Mr. R. N. Elangovan	Industrial expert in the field of engineering and technology	Manager Learning and Development Titan Industries Ltd, Hosur

Functions:To formulate plans for the development and growth of Sona College on the advice of the Governing Body of the college and provide guidance and advice in the implementation and monitoring of the plans

Frequency of Meeting: At least twice a year

6 (a) - Anti Ragging Committee

The following Table 10.9 shows the list of members in Anti ragging committee.

Table 10.9 Anti Ragging Committee

Anti-Ragging Committee			
S.No	Category	Designation	Name
	Chairman	Principal	Dr. S.R.R.Senthil Kumar
	Member Secretary & Convener	Associate Professor / Chemistry	Dr. T. Maruthavanan
	Members	Assistant Professor / Fashion Technology	Mr. D. Vasanth Kumar
		General Manager, Hostels	Mr. V. Meenakshi Sundharam
		Associate Professor / CIVIL	Dr. A. Murugesan
		Asst. Professor / Mechanical & Associate Warden	Mr. A. Sivaprakasam
		HOD / EEE & Associate Warden	Dr. S. Padma
		Professor / CSE & Associate Warden	Dr. S. Sakthivel
		HOD / First Year	Dr. M. Renuga
		Assistant Professor / Mathematics & Residential Tutor	Ms. S. Uthamapriya
		Asst. Professor / CSE & Residential Tutor	Ms. S.Theetchenya
		Senior Physical Director	Mr. M. Rajavignesh
		Physical Directres	Ms. K. Anithaa

		Deputy Editor, The Hindu	Mr. Syed Muthahar
		State Executive Member, TNSF NGO Youth activities	Mr. Sahasranamam
		II Year Student	S.R. Keshav
		II Year Student	B. Monica
		Parent II Year	A Babu
		Law & Order, Salem West	Asst. commissioner of Police
		Suramangalam Police Station	Inspector of Police-Male
		All Women Police Station, Suramangalam	Inspector of Police-Female
		Administrative Officer	Mr. V. Venugopal
		I Year Student / ECE	Ms. I Evangeline Christina
		I Year Student / Mechanical	Mr. E. Joshua
		I Year Student / CSE	Mr. K. Jeeva
		Parent / I Year	Dr. D. Immanuel

Terms of Reference of the committee

Function: To maintain Sona a ragging-free campus

Tenure of members: Two years

Frequency of Meeting: Twice a year

Roles &Responsibilities:

To create awareness about ragging and ensure a student-friendly environment at all times

To facilitate campus monitoring to ensure ragging free campus

6 (b) - Anti Ragging squad committee

The following Table 10.10 shows the list of members in Anti ragging squad committee.

Table 10.10 Anti Ragging squad committee

6b - Anti-Ragging Squad			
S. No.	Name	Position	Designation
1	Dr. S.R.R. Senthil Kumar	Chairperson	Principal
2	Prof. M. Senthil Kumar	Member	Asst. Prof. / MECH
3	Prof. K. S. Yamuna	Member	Asst. Prof. / ECE
4	Prof. M.E. Paramasivam	Member	Asst. Prof. / EEE
5	Prof. S. AnithaElavarasi	Member	Asst. Prof. / CSE
6	Prof. K. Thangaraj	Member	Asst. Prof. / IT
7	Prof. R. S. Gandhimathi	Member	Asst. Prof. / CIVIL
8	Prof. S. Chinnadurai	Member	Asst. Prof. / FT

Function: To organize periodic and surprise monitoring of the campus to check ragging

Tenure of members: Two years

7 - Women Empowerment Committee

The following Table 10.11 shows the list of members in Women Empowerment Committee.

Table 10.11 Women Empowerment Committee

7 – Women Empowerment Committee			
S. No.	Name	Category / Roll in the Committee	Designation
1	Dr.M.Usha*	Ex-Officio Member	Senior Dean, ICE
2	Dr. M. Renuga	Member Secretary	HOD, Humanities and Languages and Chief Coordinator, Women Empowerment Committee, Sona College
3	Dr. J. Akilandeswari	Member	HOD, IT and Sona Coordinator, e-WIT (Anna University)
4	Prof. A. SuhanaNafais	Member	Asst. Prof, MCA and Coordinator, Women Empowerment Committee, Sona College
5	Prof.A.P.Jayakrishna	Member	Asst. Prof, ECE and Coordinator, Women Empowerment Committee, Sona College
6	Prof. M. Arivoli	Member	Asst. Prof, Civil and Department Counsellor for Women Safety
7	Prof. N. Sasirekha	Member	Assoc. Prof, ECE and Department Counsellor for Women Safety
8	Prof. T. Ilakkia	Member	Asst. Prof, EEE and Department Counsellor for Women Safety
9	Prof. S. Priyalatha	Member	Asst. Prof, FT and Department Counsellor for Women Safety
10	Prof.P.Thamilarasi	Member	Assoc. Prof, MECH and Department Counsellor for

			Women Safety
11	Prof. J. Jayanthi	Member	Assoc. Prof, CSE and Department Counsellor for Women Safety
12	Dr. C. Shanthi	Member	Prof, Physics and Department Counsellor for Women Safety
13	Dr. G. Shanthi	Member	Asst. Prof, Chemistry and Department Counsellor for Women Safety
14	Prof. A. Sasikala	Member	Asst. Prof, Computer Science and Department Counsellor for Women Safety
15	Dr. J. JebaEmilyn	Member	Assoc. Prof, Information Technology and Department Counsellor for Women Safety
16	Dr. P. K. Anjani	Member	Assoc. Prof, MBA and Department Counsellor for Women Safety
17	Dr. R. Thenmozhi	Member	Assoc. Prof, MBA and Member, President 2015-16, IIW Salem City
18	Prof. M. Thenmozhi	Member	Asst. Prof, MCA and Department Counsellor for Women Safety
19	Ms K Sumathi	Member	Matron,Main Women's Hostel

Functions:

To spread the awareness of gender issues among all women

To ensure that they have access to opportunities, devoid of any gender bias or discrimination on the grounds of sex, to help them rise to their full potential

Meetings: At least twice a year

8 - Complaints and Redressal Committee

The following Table 10.12 shows the list of members in Complaints and Redressal committee.

Table 10.12 Complaints and Redressal Committee

8 – Complaints and Redressal Committee			
S. No.	Name	Category / Roll in the Committee	Designation
1	Dr. M. Renuga	Chairperson	Professor and HOD / H&L
2	Dr. B. Sathiyabhama	Member	Professor and HOD / CSE
3	Prof. A. SuhanaNafais	Member	Asst. Prof. / MCA
4	Prof. M. S. Thenmozhi	Member	Asst. Prof. / MCA
5	Ms. Sri Kutty	Member	Clinical Psychologist
6	Dr.M.Usha*	Ex-Officio Member	Principal

Functions:To review any cases of sexual harassment on thecampus and provide proper redress

Meetings:As and when necessary, but definitely twice a year

Tenure of members: Two years

9 - Discipline and Welfare Committee

The following Table 10.13 shows the list of members in Discipline and Welfare committee.

Table 10.13 Discipline and Welfare Committee

9 – Discipline and Welfare Committee			
S. No.	Name	Category / Roll in the Committee	Designation
1	Dr. S. Padma	Chairperson	HOD / EEE
2	Dr. D. SenthilKumar	Convenor	HOD / Mech
3	Dr. R. Malathy	Member	HOD(i/c) / Civil
4	Dr. J. Akilandeswari	Member	HOD / IT
5	Dr. B. Sathiyabhama	Member	HOD / CSE
6	Prof. S. Theetchanya	Member	Asst. Prof. / CSE and Residential Tutor
7	Mr. V. MeenakshiSundaram	Member	Sr. Executive, Hostels

Objective:To ensure maintenance of good student discipline and provide proper amenities for student wellbeing on the campus

Periodicity of Meetings: As and when necessary, but definitely twice a year

Tenure of members:Two years

10 - Management Review Committee

The following Table 10.14 shows the list of members in Management Review Committee.

Table 10.14 Management Review Committee

10 – Management Review Committee (MRC of Sona-QMS)			
S. No.	Name	Category / Role in the Committee	Designation
1	Dr. S.R.R. Senthil Kumar	Chairperson	Principal
2	Dr. C. V. Koushik	Academics	Director/Academics
3	Dr. J. JebaEmilyn	Management Representative	SONA QMS – Coordinator
4	Members	All Departments, Research Centres, Administrative Functions, Hostels, Sports and Other Specific Functions	All HODs/Directors PG Deans Director/HR COE Librarian Sports Director/PD Member Secretary – Academic Council Administrative Officer/s Administrative Function Heads (Purchase and Stores, Accounts, Student Training and Placement, Continuing Education, Transport, MIS, PR, etc) Sr. Executive – Hostels

Functions:To review findings of the internal audits of Sona-QMS and also to formulate improvements in established quality processes

Meetings: Twice a year

11 - Grievance Redressal Committee

The following Table 10.15 shows the list of members in Grievance Redressal Committee.

Table 10.15 Grievance Redressal Committee

Externally-Constituted Committee			
11 – Grievance Redressal Committee			
S. No.	Name	Category	Designation
1	Dr. S.R.R. Senthil Kumar	Ex-Officio	Principal
2	Dr. M. Renuga	Coordinator	HOD- Humanities
3	Dr. S. Ganesan	Member	Registrar Anna University, Chennai
4	Dr. M. Chandrasekar	Member	Student Affairs, Anna University, Chennai
5	Dr. V. Jayabalan	Member	Controller of Examinations Anna University, Chennai
6	Dr. A. Rajadurai	Member	Director, Centre for Affiliation Anna University, Chennai
7	Regional Director	Member	Southern Regional Officer AICTE, Chennai

Meetings: At least twice a year

OTHER COMMITTEES:

1. Extra-Curricular Activities Committee

The following Table 10.16 shows the list of members in extra-curricular activities committee.

Table 10.16 Extra-Curricular activities committee

S.No	Category	Designation	Name
1.	Chairman	Principal	Dr. S.R.R. Senthil Kumar
2.	Member Secretary &	HOD- English	Dr. M. Renuga
3.	Members	Sports Director	Mr.D.Soundarraj
4.		NCC officer I	Mr. Senthil Kumar
6.		NSS Coordinator 1	Mr. P. Iyyanar
7.		NSS Coordinator 2	Mr. P. Jayaprakash
8.		YRC Coordinator	Mr. G. Suresh
9.		Fine Arts Association Coordinator	Mrs. V. Vijayalakshmi
10.		Sports Club Coordinator	Mr.V.Vijay
11.		Tamil Mandram Coordinator	Mr. B. Venkatesh
12.		Aptitude & IQ Club Coordinator	Mr. Vijay Peter
13.		Women's Development Wing Coordinator	Ms. SuhanaNafais
14.		English Dev. Club Coordinator	Ms. G. Sarathalakshmi
15.		Sonaria Club Coordinator	Mr. S. Jayachandran
16.		Science Club Coordinator	Dr. V. Balasubramanian
17.		Corporate Relationship Officer	Mr.B.Saravanen
18.		Continuing Education Coordinator	Ms.MadhuPriya
19.		Tremors Club Coordinator	Mr. S. Lakshmanan

Frequency of Meeting: At least twice a year

2. Academic Audit Committee

The following Table 10.17 shows the list of members in academic audit committee.

Table 10.17 Academic Audit Committee

Academic Audit Committee			
S.No	Category	Designation	Name
1.	Chairman	Principal	Dr. S.R.R. Senthil Kumar
2.	Member Secretary & Convener	Audit Coordinator	Dr. R. Shivakumar
3.	Members	Internal Auditor – Mech	Mr.K.G.Saravanan
4.		Internal Auditor – EEE	Dr.R.Shivakumar
5.		Internal Auditor – Civil	Dr.S.Suresh
6.		Internal Auditor – ECE	Dr.R. Vinodhkumar
7.		Internal Auditor - CSE	Dr.A.C.Kaladevi
8.		Internal Auditor – EEE	Dr.J.Senthilkumar
9.		Internal Auditor – FT	Mrs.S.Priyalatha
10.		Internal Auditor – MBA	Mrs.S.Sathyakala
11.		Internal Auditor – MCA	Dr.M.Geetha
12.		Internal Auditor – Science and Humanities	Dr.V.Balasubramanyan

Frequency of Meeting: At least twice a year

3. Standing Committee Members

The following Table 10.18 shows the list of members in standing committee.

Table 10.18 Standing Committee

S.No.	Category	Designation
1	Principal	Convener
2	Director – Academics	Member
3	Director- Industry Connect	Member
4	All HODs/Directors	Member
5	Member Secretary-Academic Council	Member
6	Controller of Examinations	Member

Roles and Responsibilities:

1. BoS meeting findings for Academic council approval.
2. Proposed amendments in Autonomous Regulations for Academic council approval.
3. Any other related matters.

Frequency of Meeting: At least twice a year

Research and Development Committee

The following Table 10.19 shows the list of members in Research and Development committee.

Table 10.19 Research and Development committee

S.No	Category	Designation	Name
1.	Chairman	Principal	Dr. S.R.R. Senthil Kumar
2.	Member Secretary & Convener	Dean - EEE	Dr. S. Chandrasekar
3.	Members	Professor & HOD - MECH	Dr.D.Senthilkumar
4.		Professor – HOD-EEE	Dr. S. Padma
5.		Professor – HOD-CSE	Dr.B.Sathiyabhama

6.		Professor –HOD- ECE	Dr. R.S. Sabeenian
7.		Professor – HOD-IT	Dr. J. Akilandeswari
8.		Professor – HOD-FT	Prof. G. Gunasekaran
9.		Professor – Physics	Dr. S. Saravanan
10.		Professor – Physics	Dr. RajasriSenJaiswal
11.		Prof. & Dean (R&D) – Civil	Dr. R. Malathy
12.		Professor – MCA	Dr.T.Padma
13.		Joint Director - MBA	Dr. M. Selvaraj

Frequency of Meeting: At least twice a year

5. **Library Committee**

The following Table 10.20 shows the list of members in library committee.

Table 10.20 Library committee

S. No	Category	Designation	Name
1	Chairman	Principal	Dr. S.R.R. Senthil Kumar
2	Ex-Officio Members	Library In-Charge –Mech	Mr. N. Venkatesan
3		Library In-Charge – EEE	Mr. G.Karthikeyan
4		Library In-Charge – ECE(UG)	Mrs.P.Priya
5		Library In-Charge - ECE(PG)	Mr. G Ravi
6		Library In-Charge – CSE	Mrs.S.Theetchenya
7		Library In-Charge – IT	Ms.I.Janani
8		Library In-Charge – Civil	Mr.M.Soundarajan
9		Library In-Charge – FT	Mr.K.Mani
10		Library In-Charge – Physics	Mr. M Muthukrishnan
11		Library In-Charge – Chemistry	Mr. M Mathivanan
12		Library In-Charge –Maths	Mrs.K.Buvaneswari
13		PTW & HTD	Mr.G.SaravanaPerumal
14		Library In-Charge – English	Mrs. M Saraswathy
15	Member Secretary & Convener	Librarian	Mr. N.Sreedharan

Frequency of Meeting: At least twice a year

10.1.3.2 Service rules, Procedures, Recruitment and promotional policies

A. SERVICES RULES

1. Hours of Work

The working hours for the teaching faculty are between 08.50 A.M and 5.00 P.M IST; for the non-teaching and administrative staff (including staff in the administration department) the hours are from 9.30 A.M to 05.30 P.M. An Employee is expected to put around 49 hours of work every week.

2. Attendance and Punctuality

Regular attendance is essential to the efficient functioning of the institution and is a necessary condition of employment. Employees are expected to report to work as scheduled and on time.

3. Identification Card

Identification cards are issued to all staff members and they are expected to carry / wear them while they are in the campus.

4. Code of conduct

a. Dress code / Foot wear

The college observes a formal dress code. All employees should use discretion in wearing attire that is appropriate for the work in the institute. All female teaching staff are required to wear white coats provided by the institute during lectures.

b. Foot wear

Staff members are requested to wear slip-on shoes (Cut shoes or Pump shoes) or regular slippers with normal heels. Bathroom slipper or Hawai slippers are not allowed.

c. Prohibited Activities

The institute prohibits the consumption of alcohol and drugs, and gambling inside the premises. In addition, any damage caused to the institute's property or cases of dishonesty and harassment or indulging in violent behaviour with students, visitors or other staff, etc. will lead to disciplinary action, which may also lead to suspension or termination for failure to comply with institute policy.

d. Use of Telephone, Internet and Computer

The institute understands that when employees work during the week it is

occasionally necessary to conduct personal business during office hours. However employees should limit their personal use of the telephone, computer and internet during office hours.

e. Library

The library will be kept opened from 8 a.m to 8 p.m on all working days and from 10 a.m to 5 p.m on Sundays. Staff and students can make use of this facility.

B. Policies and Procedures

Recruitment & Selection policy for Teaching Faculty

Recruitment and Selection process aims to search and hire suitable candidates to fill vacancies in SONA to fulfil the requirements as per Higher Approval Authority norms (UGC, AICTE & Anna University).

Any position that becomes vacant will be filled, on completion of a Faculty Requirement Form by the concerned department / functional heads duly approved by the Principal and Chairman.

The success and adaptability of the institution depends upon employees who are flexible, adaptable and committed to the success of the SONA.

Recruitment Process

Step 1: Recruitment Authorization

Faculty Requirement Form submitted by the concerned department / functional head, duly authorized by the Principal and Chairman

Step 2: Sourcing

CV's are obtained from various sources like:

Resume data Base

Posting Advertisements

Resumes from Job portals (Naukri.com & monsterindia.com)

Employee Referrals

Step 3: Pre Screening & Interview

Pre-screening carried out by the HRD and the CV's forwarded to the concerned department head for further short listing

HRD shall organize an interview of the candidates who are shortlisted by the HODs.

Step 4: Interview Process

Interview by Panel members consists of:

Department Head

Senior professors

External Expert (Based on requirement & availability)

Step 5: Final Approval, Offer and Joining

The selected candidates will be presented to the Principal and Chairman for final approval.

Appointment letters will be issued to the candidates approved by the Chairman

On the day of joining the candidate will report to the HRD. Further joining procedures will be completed by the HRD.

Probationary period

A new employee will be on probation for a period of one year from the date of joining. After the probationary period, the period of probation may be either extended, by another year or dispensed earlier. Employee's performance during the probationary period will be at the discretion of the management and thoroughly assessed, and only on satisfactory completion of initial or extended period of probation, new employee will be confirmed in the regular service of the Institution.

During the probationary period, employee may be terminated at the sole discretion of the management without assigning any reasons whatsoever, and without payment of any compensation. After the probationary period, employee will continue to be a deemed probationer till such time a written confirmation order is issued to employees, confirming their induction into the regular service of the Institution.

3. Increments and Promotions

i. Employee's performance and contribution to the department and the institution will be an important consideration for salary increments and promotions.

ii. Employee's increments and promotions will also be based on the appraisal done by the management, and superiors.

Resignation

Employees who wish to leave the services of SONA, he/she will be relieved only at the end of a semester, provided they have to tender three months' notice or surrender three month's salary. However, it is left to the discretion of the Management, to relieve earlier. Likewise, if employee's service is not satisfactory / required by the management, it has the discretion to terminate the services at any point of time, with a two months' notice.

Superannuation

The age of superannuation – (I) Teaching Faculty - 65 Years (II) Non Teaching – 58 Years

5. Employee Benefits

Medical Centre

Sona has a full – fledged Medical Centre, functioning during two sessions from 11.00 am to 01.00 pm and from 04.30 to 06.00 pm. Two Part time medical officers and one full – time staff nurse are available at the centre to provide medical attention to any staff or student in need of it.

Dr. A. S. Hemavathy - 11.00 am to 01.00 pm

Dr. T. Prakatheeswaran - 04.30 pm to 06.00 pm

Ms. A. Karpagavalli - 09.30 am to 06.00 pm

Provident Fund:

Employees who are eligible are entitled to Provident fund benefits as per the provisions of "Employees' Provident Fund and Miscellaneous Provisions Act 1952".

c. ESI

(i) The Management is keen on extending the benefits of "Employees State Insurance" to the employees of our College. All the staff members (Teaching, Non–Teaching and Supporting), earning Rs.15,000/- and below, are registered under the E.S.I. scheme,

(ii) As per the E.S.I. scheme, Staff has to contribute an amount of 1.75% of their total earnings every month. The Employer (College Management) in turn, shall contribute a sum of 4.75% of the total earnings of the employee

Gratuity

All employees are entitled to gratuity benefits as per the provisions of the "Gratuity Act 1972".

Group personal accident Insurance

All Employees completing 2 years of service in our Institution are eligible to cover under the Group insurance scheme. The benefits are:

(i) Accidental hospitalization for Rs.20,000/- per staff

(ii) Accidental death claim for Rs.2,00,000/- per staff

Financial Assistance for attending Seminars, Conferences, etc.,/Official visits/Paper Publications etc.,

The following Table 10.21 shows the criteria for facilitating professional

development programmes for all staff members with effect from 02-01-2014.

Table 10.21 Facilitating professional development programmes

<table>
<tr><th>Events/ Programs</th><th>Nature</th><th colspan="4">Financial Assistance provided</th></tr>
<tr><td rowspan="5">a. National / International Seminar, conference, Workshop, Symposium, Paper presentations, etc.,

b. SDP, FDP, Other Training programmesorganised by IITs, IIMs, NITs, CII, FICCI, ISTE, AICTE and other reputed institutions

c. For any other Official visit to places outside Salem (if recommended or nominated by Management)</td><td>Registration Fee / Course Fee</td><td colspan="4">100 %, subject to the following :
(National level – Max. limit : Rs. 3,000
International – Max. limit : Rs. 7,000)</td></tr>
<tr><td>Travel Allowance</td><td colspan="4"><u>1. International venue</u>
- One way travel
<u>2. Venue outside / within Tamilnadu</u>
- To & Fro by Road/Rail whichever is less
- For rail restricted to Sleeper Class.
- For HODs / Professors - permissible to 3 tier A/C.</td></tr>
<tr><td>Dearness Allowance (For Food & Local Conveyance)</td><td colspan="4">- D.A. – Rs.300/day for venues within Tamilnadu.
- D.A. – Rs.400/day for venues outside Tamilnadu.
- D.A. – Rs.500/day for state capitals.
- No D.A will be provided for International venues.</td></tr>
<tr><td rowspan="4">Lodging Allowance (Maximum Limit)</td><td>Cadre</td><td>Within Tamilnadu</td><td>Outside Tamilnadu & State Capitals</td><td>New Delhi, Mumba, Calcutta</td></tr>
<tr><td>For all Staff members</td><td>Rs.600/-</td><td>Rs.900/-</td><td>Rs.1200/-</td></tr>
<tr><td>HODs & Professors</td><td>Rs.900/-</td><td>Rs.1200/-</td><td>Rs.1800/-</td></tr>
<tr><td colspan="4">Lodging Expenses for International Venues to be borne by the Faculty</td></tr>
</table>

d. Norms for Paper Publications (Highly reputed Publishers, identified & listed by the Institution)	Cost of Publication	50% Publication cost in "Journals" (Impact Factor ">1" only) *(Max. limit – National: Rs. 3,000, International: Rs. 7,000)* Other costs (Postages, etc) to be borne by Faculty

NOTE:

Financial assistance for attending Seminars, Conferences, etc, will be provided to the Faculty members only four times a year in India, and once in a year at 'International venues'. In special cases depending upon the importance and appropriateness to the institution, granting permission to attend, or sanctioning higher financial assistance, is left to the discretion of the management.

For official visits (if recommended or nominated by the Management), actual expenses incurred towards conveyance shall be claimed

Leave and Vacation

The following Table 10.22 shows the details of leave and vacation details for all staff with effect from 02-01-2015.

Table 10.22 Leave and Vacation

Leave	Number of Days	Eligibility
STATUTORY HOLIDAYS	Statutory holidays as announced (18 days paid holidays)	All staff
CASUAL LEAVE	12 days	All staff
MEDICAL LEAVE	15 days per year with ½ pay and eligible for VL	After two years of service
MATERNITY LEAVE	3 months with full pay (for first 2 children only) Staff members availing Maternity leave are not eligible for	After one year of service

<table>
<tr><td></td><td colspan="3">vacation leave during the calendar year concerned and they can avail vacation leave only after completing one year of service from the date of rejoining. Staff members resuming duty after maternity leave have to complete six months of service to be eligible for the maternity leave pay</td><td></td></tr>
<tr><td rowspan="3">VACATION LEAVE

TEACHING</td><td>Vacation Period</td><td>Service less than 2 years</td><td>Service more than 2 years</td><td rowspan="3">After one year of service</td></tr>
<tr><td>Summer</td><td>2 Weeks</td><td>4 Weeks</td></tr>
<tr><td>Winter</td><td>1 Week</td><td>2 Weeks</td></tr>
<tr><td>NON - TEACHING</td><td colspan="3">Non teaching staff can avail the vacation leave

The non teaching staff can avail the vacation leave round the year subject to the approval of Principal and Heads of the Department</td><td>After one year of service
-Eligible for 14 days

After two years of service
-Eligible for 28 days</td></tr>
</table>

Note:

1. Compensation Off will be approved if the employees work on holidays with the approval of Principal& HOD.

2. Any category of the above leaves cannot be clubbed.

On Duty Norms

The following Table 10.23 shows the details of On-Duty norms for all staff.

Table 10.23 On-Duty Norms

S. No.	Nature of work	No. of days per semester
1.	Anna University – Valuation / Invigilation / Practical / AUR	10 days
2.	Any Autonomous Institutions (Practical + Valuation + Invigilation)	5 days

3.	Paper Presentation in conference, Seminars, Workshops & etc.	5 days
4.	SDP, FDP, Other Training programmes organized by IITs, IIMs, NITs, CII, FICCI, ISTE, AICTE, Anna University (1 per Sem)	Programme days
5.	Guest Lectures /Invited Lecturers / Resources person (Institution equivalent (or) above SONA standard)	Actual days
6.	Member of • BOS meeting / DC meeting • Session jury – Conference, Workshop & etc.,	
7.	Official visits /Programmes nominated by Management	Actual days

Note:

1. If the number of OD exceeds the above norms, needs approval of Principal, HR & HOD

2. In addition to the above, two days of on duty will be given for Ph.D. viva voce &Convocation.

D.A. Norms for Staff – I.V.s

The following Table 10.24 shows the details of D.A. Norms, for Staff members who are accompanying students during Industrial visits (I.V.).

Table 10.24 D.A. Norms for Staff – I.V.s

Particulars	Nature of Financial Assistance	Amount of Assistance provided
Norms for Staff members, accompanying students during Industrial visits	Dearness Allowance (For Food expenses)	- D.A. – Rs.200/day for venues with in Tamilnadu. - D.A. – Rs.300/day for venues outside Tamilnadu& State capitals

The following Table 10.25 shows the details of travelling allowances for staff members.

Table 10.25Travelling Allowance Chart

Allowance for Tour in India (Subject to change by Management)															
Daily Allowance rates															
S. No	Category	Level - I - Principal / Director / Dean / HOD					Level - II - Professor / Associate Professor / Head - Non Teaching					Level - III -Assistant Professor / Non Teaching Staff				
		Travelling	a	b	c	D	Travelling	a	B	C	d	Travelling	a	b	c	d
1	India (INR per day)	Actual Economy Class Flight Charge of First AC Train fare (Both Ways) with Management's approvals	3000	500	500	500	Two tier AC Train fare (One Way) or Three tier AC Train fare (Both Ways)	1500	300	200	250	Three tier AC Train fare (One Way) or Sleeper Class (Both Ways)	1000	300	200	100

Allowance for Oversees Tour																
Daily Allowance rates																
S. No	Category	Level - I - Principal / Director / Dean / HOD					Level - II - Professor / Associate Professor					Level - III -Assistant Professor				
		Travelling	a	b	c	d	Travelling	a	b	c	d	Travelling	a	B	c	d
1	USA	Actual Economy	90	60	50	10	Actual Economy	65	45	35	8	Actual Economy	45	30	25	5
2	Canada		120	80	70	12		90	60	50	9		60	40	35	6

3	Australia	Class Flight Charge (Both ways)	120	80	80	12	Class Flight Charge (One way)	90	60	60	9	Class Flight Charge (50 % of One way)	60	40	40	6
4	Japan (Japaneses		10300	7000	7000	1200		7725	5250	5250	900		5150	3500	3500	600
5	Malayasia		410	270	275	50		300	200	200	35		205	135	140	25
6	Singapore		130	85	90	15		95	60	70	12		65	40	45	8
7	UK(GBP/day)		75	50	50	9		55	35	35	7		40	25	25	5

a-Lodging b-Boarding c-Ground Transport d-Miscellaneous

Year of publication of Norms

D.A. Norms for staff – I.V.s	: 22.09.2010
Financial Assistance for facilitating professional development programmes	: 02.01.2014
On Duty Norms	: 02.01.2015
Leave and Vacation	: 02.01.2015
Travelling Allowance Chart	: 20.10.2017

Extent of awareness among the employees/students : Yes

Details of Organization structure, Authorities, Administrative setup etc., were available at website www.sonatech.ac.in. Meeting circular and meeting minutes were updated to employees through Management Information System (Sona-Times). Information about Service rules, policies and procedures were mentioned in employee handbook which is also available in Sona-Times.
The minutes of the statutory body meetings are enclosed in Annexure 10.1

10.1.4 Decentralization In Working and Grievance Redressal Mechanism

The institute functions with perfect decentralized administration as depicted in Table 10.26 that has complete transparency in the decision making process.
Also, the following are the staff members who have been administering various tasks and hold the responsibility of decision making with the task assigned to it.
Table 10.26 Functions of key administrative positions

S.No	Department	Staff in-charge
1	Admission	Dr.G.M.Kadhar Nawaz
2	HR (Recruitment, Training, Appraisal, Welfare & Grievances)	Ms.G.K. Aarthi
3	Corporate Relationship Officer	Mr Ramesh
4	General Administration / Stores	Mr. V Venugopal

5	Continuing Education	Mr. A. Venkatesan
6	Management Information System	Dr. T. Padma
7	AICTE/UGC/University Correspondence	Mr. V. Selvamuthu
8	Estate Maintenance	Mr.A.L.Karthik
9	Civil Construction & Maintenance activities	Mr. M. Adhiyamaan
10	Power Distribution	Mr. R. Nanda Kumar
11	Computer Maintenance Group	Mr. Govindarajan
12	Transport	Mr. V Venugopal

The Principal, Directors and the Heads of the Department (HOD) concerned take decisions in all academic matters. The HODs conduct periodic meetings with the faculty and students and offer them suggestions. They also discuss with the Principal, Directors, and Chairman of the Board of Management on important matters related to the college functioning, and decision is taken by them through consensus. Most rules and regulations are circulated among staff, and decision is taken only after a thorough discussion with the stakeholders. The final decisions taken are circulated among all stakeholders for adoption. The discussions normally emanate from the faculty, at the faculty meetings with the HODs and then in the HODs meeting with the Principal. Most of the information like organizing conferences, permitting a faculty to travel overseas for presenting a paper, etc. travel from bottom to top for approval by the Management. If there is a common rule governing all concerned, it comes from top to bottom, that too after initiating a talk with the faculty or HODs as the case may be.

CASE STUDY

Decentralization and Participative management in Research and Development (R&D)

Every department has a Department Consultative Committee (DCC), in which HOD acts as the chair person. DCC members regularly meet with the department faculty members and take necessary steps to formulate and implement strategic plans of the institution. The role of the DCC is to review and approve industries or other identified organizations for industrial training, internship or project work for students. Also, the DCC gets the feedback from all the faculty members and study the impulses of the department in general and take steps for further improvements and recommend to the management for further corrective actions through Principal. Every Head of the Department of the Institution is empowered to organize conferences, workshop, symposium, etc, to develop their faculties and students. For the student academic development, each HOD acts as the Chairperson of the respective board of studies and recommends changes in the curriculum according to

the industry needs. Recently we introduced Choice Based Credit System (CBCS) to enhance the knowledge of the students.

Every department has a vision to widen the research and development activities in the field of emerging areas like nano-technology, robotics, automation, etc. In our institution, all the R&D centres have been decentralised and monitored by the department heads or senior research heads. Our Institute's commitment to advanced research in the areas of science, engineering and technology has nurtured thirty plus centres of excellence. Every department is encouraged to have at least one such centre. Many departments have established two/three centres each.

These centre heads will present the progress of their research activities before the management once a fortnight. To encourage the faculty and students of Sona College to carry out consultancy projects and testing services for industry, the management provides 60:40 sharing in the net revenue of such projects.

The centres focus primarily on applied research, product development, learning-resources development and training of industry personnel. All these centres have in place advanced equipment and current technology.

There is a strong tendency towards inter-disciplinary research, especially in the areas of nano-technology, robotics, automation, etc, that generates new ideas and promotes the development of innovative products and processes. Both the faculty and the students alike contribute to the research, development and innovation at Sona.

The individual department research centres are monitored and controlled by the centre heads. The management gives full support in terms of finance and human resources to encourage application of patents submit research proposals, publications, participation in conferences and workshops, etc.

The Management gives ample freedom and flexibility to all the heads of the department lead all the Academic and Research and Development.

GRIEVANCE REDRESSAL MECHANISM

The management of the college follows an open system of administration and grievances from staff and students are given the utmost attention.

Complaints and suggestion boxes are kept at a number of places in the campus and also in thehostels.

The suggestions and complaints are carefully looked into and remedial measures undertaken.

Responses are also publicized through notice boards.

In case of indiscipline, a committee appointed by the principal enquires into the matter by callingwitnesses and recommendations are made about the action to be taken by the management.

Grievances regarding the staff are carefully looked into by the Heads of the Department inconsultation with the Principal and remedial measures taken.

Class Committee meetings are held in which grievances of students are taken note of and remedial measures taken. The following Table 10.27 shows the list of members in Grievance Redressal committee.

Table 10.27 Grievance Redressal committee

Externally-Constituted Committee			
Grievance Redressal Committee			
S. No.	Name	Category	Designation
1	Dr. S.R.R. Senthil Kumar	Ex-Officio	Principal
2	Dr. M. Renuga	Coordinator	HOD- Humanities
3	Dr. S. Ganesan	Member	Registrar Anna University, Chennai
4	Dr. M. Chandrasekar	Member	Student Affairs, Anna University, Chennai
5	Dr. V. Jayabalan	Member	Controller of Examinations Anna University, Chennai
6	Dr. A. Rajadurai	Member	Director, Centre for Affiliation Anna University, Chennai
7	Regional Director	Member	Southern Regional Officer AICTE, Chennai

Frequency of Meetings: At least twice a year

The following Table 10.28 shows the list of members in Anti-Ragging committee at hostel.

Table 10.28 Anti-Ragging committee at Hostel

Anti-Ragging Committee at Hostel			
S.No	Category	Designation	Name
1.	Chairman	Principal	Dr. S.R.R. Senthil Kumar
2.	Member Secretary & Convener	Professor – Physics & Deputy Warden, Hostels	Dr. V. Balasubramanian
3.	MEMBERS	Senior Executive Hostels	Mr. MeenachiSundaram
4.		Asst. Prof. (Sr. Gr.)- Civil	Mr. A. Nagarajan
5.		Asst. Prof. – Mechanical	Mr. A. Sivaprakasham
6.		Professor – CSE& Deputy warden Hostels	Dr. S. Sakthivel
7.		Asst.Prof – CSE & Residential Tutor, Hostels	Ms. S. Theetchenya

Frequency of Meeting: At least twice a year

10.1.5 Delegation of Financial Powers

The following Table 10.29 shows the details delegation of financial powers to various authorities.

Table 10.29 Delegation of financial powers

1	Academic Director	Upto Rs.100000/-
2	Director-Industry Connect	Upto Rs.100000/-
3	Principal	Upto Rs.100000/-
4	Deans	Upto Rs.50000/-
5	HODs	Upto Rs.50000/-

*Further, bills/claims worth of more than Rs.1, 00,000/- (Rupees One Lakh) will be approved by the Chairman

10.1.6 Transparency and availability of correct/unambiguous information in public domain

College maintains transparency in all its operation and working. At the beginning of every semester, college brings out calendar of events that contains information of semester activities and the same is sent to all departments. Information on policies, rules, processes and its dissemination of this information is made available to Stakeholders on the college website. The required information about the college is made available on the college website www.sonatech.ac.in

Dissemination and Availability of Institute / program specific information through the web

A website by the URL www.sonatech.ac.in is available from which the latest information & happenings of the Institution can be accessed.

Formation of a Cell in accordance with the provisions of Right to Information Act, 2005

Exclusive intranet facility is available, through which the Management Information Systems (sonatimes) can be accessed across the institution. The norms, procedures, circulars & all other updated relevant information are available on the Management Information Systems (sonatimes).

Moreover, a separate links has been provides for each and every specific information in the website (www.sonatech.ac.in) such as AICTE, NAAC etc.

Also, the dissemination of information takes place through,

Department website http://www.sonatech.ac.in/it/

Curriculum / syllabus books

Display boards

Apart from this, mission and vision is disseminated to all the stakeholders of the programs through faculty meetings, workshops, student induction programs, and parent meetings.

10.2 Budget Allocation, Utilization, & Public Accounting at Institute Level (In Lacs)

The following Tables 10.30a, 10.30a_1, 10.30a_2 and 10.30a_3 show the details of total income and actual expenditure for current financial year (2017 – 2018) and for last three years in institutional level.

Table B.10.30a For Current Financial Year (2017 – 2018) (Rs. In Lakhs)

Total Income in CFY (2017 – 2018): 4963.08				Actual Expenditure in CFY (till Oct 31st 2017): 5453.98			Total No. of Students in CFY: 4643
Fee	Govt.	Grant(s)	Other sources (Specify*)	Recurring including Salaries	Non-recurring	Special Projects/ Any other specify#	Expenditure per student
3908.34	Nil	181.66	873.08	4043.66	1156.28	254.04	1.17

*Consultancy and Testing, Continuing Education / Sports Centre, Interest on Deposits, Misc. Receipts

R&D Projects

Table B.10.30a_1 - For Current Financial Year minus 1 (2016 – 2017)

(Rs. In Lakhs)

Total Income in FY (2016 – 2017): 4429.58				Actual Expenditure in FY (2016 – 2017): 4685.4			Total No. of Students in FY : 4652
Fee	Govt.	Grant(s)	Other sources (Specify*)	Recurring including Salaries	Non-recurring	Special Projects / Any other specify#	Expenditure per student
3387.71	Nil	235.94	805.93	3836.96	596.53	251.91	1.01

*Consultancy and Testing, Continuing Education / Sports Centre, Interest on Deposits, Misc. Receipts

R&D Projects

Table B.10.30a$_{2}$ - For Current Financial Year minus 2 (2015 – 2016)
(Rs. In Lakhs)

Total Income in FY (2015 – 2016): 4556.33				Actual Expenditure in FY (2015 – 2016): 4386.16			Total No. of Students in FY : 4823
Fee	Govt.	Grant(s)	Other sources (Specify*)	Recurring including Salaries	Non-recurring	Special Projects/Any other specify#	Expenditure per student
3721.94	Nil	61.48	772.91	3977.84	317.05	91.27	0.91

*Consultancy and Testing, Continuing Education / Sports Centre, Interest on Deposits, Misc. Receipts
R&D Projects

Table B.10.30a$_{3}$ - For Current Financial Year minus 3 (2014 – 2015)
(Rs. In Lakhs)

Total Income in FY (2014 – 2015): 4150.53				Actual Expenditure in FY (2014 – 2015): 3860.34			Total No. of Students in FY : 4858
Fee	Govt.	Grant(s)	Other sources (Specify*)	Recurring including Salaries	Non-recurring	Special Projects/Any other specify#	Expenditure per student
3513.32	Nil	36.94	600.27	3444.95	327.26	88.13	0.79

*Consultancy and Testing, Continuing Education / Sports Centre, Interest on Deposits, Misc. Receipts
R&D Projects, Depreciation

The following Table 10.30b shows the budget allocation and actual expenditure in category wise for the current financial year (2017 – 2018) and for last three years in institutional level.

Table B.10.30b Budget allocation and actual expenditure in category wise

Budget Allocation and Utilization – Category wise (Rs. In Lakhs)								
Items	Budgeted in CFY (2017 - 2018)	Actual expenses in CFY (2017- 2018)	Budgeted in CFY m1 (2016 - 2017)	Actual expenses in CFY m1 (2016 - 2017)	Budgeted in CFY m2 (2015 - 2016)	Actual expenses in CFY m2 (2015 - 2016)	Budgeted in CFY m3 (2014 - 2015)	Actual expenses in CFY m3 (2014 - 2015)
Infrastructure - Built Up	750.00	748.25	150.00	170.57	130.00	132.68	150.00	119.15
Library	40.00	41.8	40.00	38.06	30.00	27.94	35.00	31.22
Laboratory Equipment	140.00	138.78	280.00	295.31	150.00	153.17	110.00	112.80
Laboratory Consumables	32.00	32.97	30.00	29.34	22.00	19.49	20.00	18.71
Teaching and Non Teaching Salary	2120.00	2138.33	1900.00	1855.74	1870.00	1839.39	1800.00	1744.56
Maintenance and Spares	12.00	12.35	10.00	9.78	8.00	6.50	5.00	6.24
R&D	260.00	254.04	250.00	252.65	95.00	91.27	90.00	88.13
Training and Travel	43.00	45.24	38.00	39.97	35.00	42.31	30.00	30.71
Miscellaneous Expenses	50.00	52.20	42.00	45.42	35.00	38.19	30.00	29.51
Others (Specify*)	1253.00	1240.02	1180.00	1170.39	1275.00	1233.04	1120.00	1071.64
Total	4700.00	4703.98	3920.00	3907.23	3650.00	3583.97	3390.00	3252.66

*Furniture, Vehicle, A.C, Teaching Aids & Audio, Video Systems etc., Library (Camera & Accessories), Operational & Administrative Expenses[#], Interest

[#] Electricity/Advertisement/Promotional/Security/Placement Training etc.

10.2.1 Adequacy of budget allocation

The yearly budget is prepared according to the needs & requirements of the departments taking into consideration of annual intake of students, laboratory & infrastructure developments. Students, faculty & staff requirements and promotions and latest technologies etc., Formal budget estimates will be prepared by each department and will be reviewed in HODs meeting with the Principal and the Secretary.

After deliberations formal budget made altered in departments and forwarded to Principal for preparing final budget at college level. The final budget is sent to Management for approval and sanction. The Management is approving almost 100% which was proposed by the institute. The budget allocation and utilization for the last three years is adequate. The Table 10.31 shows the details of adequacy of budget allocation for the current financial year and for the last three years in institutional level.

Table 10.31 Adequacy of budget allocation

Sl. NoS.NO.	Assessment Year	Budget Allocated in Lakhs (Rs.)	Actual Expenditure in Lakhs (Rs.)	Adequate/ in Adequate
1	CFY	4700.00	4703.98	ADEQUATE
2	CFYm1	3920.00	3907.23	ADEQUATE
3	CFYm2	3650.00	3583.97	ADEQUATE
4	CFYm3	3390.00	3252.66	ADEQUATE

10.2.2 Utilization of allocated funds (in %)

Funds are allocated by the Management of the College. Department Heads / Section-in-charges are intimated of the extent of funds allocated against their budget proposals. Major works like construction, up-gradation of existing infrastructure, procurement and maintenance of common utilities, house-keeping,

procurement of furniture etc. are controlled directly by the Accounts officer. Actions for procurement of lab equipment, up-gradation of existing lab facilities, purchase of consumables etc. are initiated from the respective departments and the funds are released on a case by case basis from the accounts office of the college on approval by the Management. During the last three years, the budget was utilized to meet expenses such as staff salary, infrastructure development, purchase of equipment, expenses towards consumables and contingencies, travel etc. Almost 95% of the allocated budget provided by the management is effectively utilized by the institution for the last three years. The Table 10.32 shows the percentage of funds utilization for the current financial year and for the last three years in institution level.

Table 10.32 Utilization of allocated funds

Sl. No.	**Assessment Year**	**Budget Allocated in Lakhs (Rs.)**	**Actual Expenditure in Lakhs (Rs.)**	**Percentage of Utilization**
1	CFY	4700.00	4703.98	100%
2	CFYm1	3920.00	3907.23	99.6%
3	CFYm2	3650.00	3583.97	98.1%
4	CFYm3	3390.00	3252.66	95.9%

10.2.3 Availability of the audited statements on the institute's website

No

10.3 Program Specific Budget Allocation, Utilization

The following tables 10.33a, 10.33a_1, 10.33a_2 and 10.33a_3 show the details of total income and actual expenditure for current financial year (2017 – 2018) and for last three years in department of Electronics and Communication Engineering.

Table B.10.33a - For Current Financial Year (2017 – 2018) (Rs. In Lakhs)

Total Budget in FY (2017 – 2018) (For 12 Months): 478.7		Actual Expenditure in FY (2017 - 2018) : 299.68		Total No. of Students in FY: 639
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
183.20	391.00	153.49	397.23	0.86

Table B.10.33a_1 - For Current Financial Year minus 1 (2016 – 2017)
(Rs. In Lakhs)

Total Budget in FY (2016 – 2017): 395.5		Actual Expenditure in FY (2016 - 2017): 391.11		Total No. of Students in FY: 615
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
54.20	360.00	56.50	352.36	0.67

Table B.10.33a$_2$ - For Current Financial Year minus 2 (2015 – 2016)

(Rs. In Lakhs)

Total Budget in FY (2015 – 2016): 375.00		Actual Expenditure in FY (2015 - 2016): 382.67		Total No. of Students in FY: 590
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
30.50	352.00	27.74	349.86	0.64

Table B.10.33a$_3$ - For Current Financial Year minus 3 (2014 – 2015)

(Rs. In Lakhs)

Total Budget in FY (2014 – 2015): 350.50		Actual Expenditure in FY (2014 - 2015): 349.11		Total No. of Students in FY: 568
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
30.00	323.00	30.84	320.54	0.62

The following Table 10.33b shows the budget allocation and actual expenditure in category wise for the current financial year (2017 – 2018) and for last three years for the department of Electronics and Communication Engineering.

Table B.10.33b Budget allocation and actual expenditure in category wise

Budget Allocation and Utilization – Category wise (Rs. In Lakhs)								
Items	Budgeted in CFY (2017 - 2018)	Actual expenses in CFY (2017- 2018)	Budgeted in CFY m1 (2016 - 2017)	Actual expenses in CFY m1 (2016 - 2017)	Budgeted in CFY m2 (2015 - 2016)	Actual expenses in CFY m2 (2015 - 2016)	Budgeted in CFY m3 (2014 - 2015)	Actual expenses in CFY m3 (2014 - 2015)
Laboratory Equipment	10.20	10.18	8.00	8.48	7.25	7.35	5.25	5.24
Software	3.00	3.20+23.60*	6.00	6.00	-	-	-	-
Laboratory Consumables	3.20	3.39	1.75	1.78	1.40	1.32	1.00	1.07
Maintenance and Spares	1.20	1.12	0.65	0.60	0.50	0.38	0.30	0.36
R&D	11.3	11.67	5.60	5.87	3.25	3.01	1.20	1.22
Training and Travel	3.70	3.55	3.25	3.07	3.00	2.92	2.50	2.66
Miscellaneous Expenses**	5.40	5.29	4.75	4.66	4.00	4.02	3.10	3.09
Total	38	38.40+23.60*	30.00	30.46	19.40	19.00	13.35	13.64
* *Academic Activities includes Department Symposium, Guest Lecture and Work Shop etc								
* From Chockalingam Trust								

10.3.1 Adequacy of budget allocation

The allocated budget was used to meet the new facilities for equipment, replacement of outdated equipment and new labs due to revision in syllabi.Budget requirements under recurring and non-recurring heads are collected from every departments and sections before the commencement of the financial year. Allocations are made as per the availability of funds. Spending is monitored by the accounts section. The institution carefully monitors the expenses so that the necessities are met without affecting the smooth working of the institution. The management has been very efficiently doing this over the past several years that the institution never had any serious budget crunch that affected the functioning of the college. The Table 10.34 shows the details of adequacy of budget allocation for the current financial year and for the last three years for the department of Electronics and Communication Engineering.

Table 10.34 Adequacy of budget allocation

Sl. No.	**Assessment Year**	**Budget Allocated in Lakhs (Rs.)**	**Actual Expenditure in Lakhs (Rs.)**	**Adequate/ in Adequate**
1	CFY	574.20	550.72	ADEQUATE
2	CFYm1	414.2	408.86	ADEQUATE
3	CFYm2	382.5	377.64	ADEQUATE
4	CFYm2	353	351.38	ADEQUATE

10.3.2 Utilization of Allocated Funds

Funds are allocated by the Management of the College. Department Heads are intimated of the extent of funds allocated against their budget proposals. Actions for procurement of lab equipment, up-gradation of existing lab facilities, purchase of consumables, etc. are initiated from the department and the funds are released

on a case by case basis from the accounts office of the college on approval by the Management. During the last three years, the budget was utilized to meet expenses like purchase of equipment, expenses towards consumables and contingencies, etc. The Table 10.35 shows the percentage of funds utilization for the current financial year and for the last three years for the department of Electronics and Communication Engineering.

Table 10.35 Utilization of allocated funds

Year	**Budgeted (Lakhs)**	**Expenses (Lakhs)**	**Utilization of funds**
Budgeted in CFY (2017-2018)	574.20	550.72	95.91%
Budgeted in CFY (m1) (2016-2017)	414.2	408.86	98.71%
Budgeted in CFY (m2) (2015-2016)	382.5	377.64	98.70%
Budgeted in CFY (m2) (2014-2015)	353	351.38	99.54%

10.4 Library and Internet

10.4. Library and Internet

10.4.1. Quality of learning resources (hard / soft)

A. Sona Library

Library Details		
S.No.	Category	Value
1	Carpet Area of Library (in m2)	825.26
2	Reading Space (in m2)	260
3	Number of Seats in Reading Space	200
4	Number of Users (Issue book) per Day	100-150
5	Number of Users (Reading space) per Day	200-250
6	Timings: During Working Day, weekend and Vacation	Working Day: 8.00 AM to 8.00 PM Weekend : 10.00 AM to 4.00 PM
7	Number of Library Staff	8
8	Number of Library Staff with a Degree in Library	6
9	Library Management	Yes - AUTOLIB
10	Computerization for Search, Indexing	Yes
11	Issue/Return Records Bar Coding used	Yes
12	Library Services on Internet/Intranet INDEST or other similar membership archives	Yes

The Library has developed an excellent collection of books, journals and non-book material in science, engineering, technology, humanities, social sciences and management. It maintains separate collections of Reference Books, Bound volumes of journals, Technical Reports, Theses, Video Cassettes, Compact Discs and Microforms. The library is using Autolib OPAC (Online Public Access Catalogue), wherein the users can search the Library Online Catalogue by Author's name, title,

subject, and keywords available on the campus LAN. The Table 10.37 shows the total collection of library resources in Sona.

Library Resource Collections

Resources	Numbers
Books & eBooks	80,640
CD's & Videos	2,479
Bound Volumes of Journals	2,034
Reports/ Standards	3,090
Photocopies	236
Total Collection	88,479
Current Journals on Subscription	123

Our College is an institutional member in DELNET, IIM (B), TERI & INSDAG Service

Current Awareness Service(CAS)

Inter Library Loan(ILL)

Reference Service

News Paper Clipping Service

Book Bank Service

INTERNET Access

OPAC

Audio-Video Viewing

Photocopying

Internet Service

36 terminals are available for the users to browse the internet through 24 Mbps Broadband connectivity.

Current Awareness Service (CAS)

This service provides the latest information to users in the area of Science and Technology and Engineering on demand.

Inter Library Loan (ILL)

Books (not available with us) may be obtained from other libraries on request. The institution is a Member in Developing Library Network (DELNET). American Information Resource Centre (AIRC) & Indian Institute of Management (IIMB)

Electronic Library

The collection consists of CD-ROMs, Floppies and AV materials including a collection of video courses. NPTEL video courses produced by the Joint ventures by IIT's & IISC's, Stanford University and AIMA are made available to the users so that they can listen to the expert lectures in the concerned subjects.

Reference Service

Staffs are available in the reference section of the reading room to suggest sources of Information and to assist in locating the required materials.

Display of current events / information

Printing

Digitalization

User orientation / information literacy

New Arrivals Section

In the New Arrivals section, one copy of the new title or new edition is displayed for one month for attracting the students and staff members for using the library effectively and at the same time updating their knowledge.

Titles and Volumes per Title

Year	Number of new titles added	Number of new editions added	Number of new volumes added
2014-15	1023	-	2521
2015-16	310	-	1817
2016-17	775	-	2340
2017-18	663	-	1536

Scholarly journal

Details		2014-15	2015-16	2016-17	2017-18
Engg. and Tech.	As soft copy	3213	460	4982	2640
	As hard copy	130	123	130	123

B. Digital Library

Availability of digital library content : Yes

Availability of an exclusive server : Yes

Availability over Intranet/Internet : Yes

Availability of exclusive space/room : Yes

Number of users per day : 300-350

Product Description	No of Journal / eBooks
IEEE ASPP	169
Elsevier - Engineering + Computer	275
EBSCO	1078
NPTEL	260 Courses
Sage	12

Human Resource for Library

S.No.	Name	Designation	Qualification
1.	Sreedharan.N	Librarian	B.A., M.L.I.S.
2.	Vijayakumar.K.S	Asst.Librarian	B.Sc., M.L.I.S.
3.	Jaganmohanram.R	Asst.Librarian	B.Sc, M.L.I.S.
4.	Muthukumar.R	Asst.Librarian	M.L.I.S.
5.	Tamilarasi.E	Library Assistant	B.Com.(CA).,
6.	Poornimadevi.C	Library Assistant	B.A., M.L.I.S.
7.	Anuradha.R	Library Assistant	B.A., CLIS
8.	Revathi.S	Tr.Library	HSC (+2), CLIS

Library Expenditure on Books, Magazines/Journals, and Miscellaneous Content

Year	Expenditure				Comments if any
	Books Rs.	Magazines/journals (for hard copy subscription)	Magazines/journals (for soft copy subscription)	Misc. content	
2014-15	1255778	437689	1770157	-	-
2015-16	782377	607980	1432576	-	-
2016-17	1072725	571851	1344977	-	-
2017-18	840908	743466	1767303	-	-

10.4.2 Internet

A. Internet Details

The following Table 10.45 shows the Internet details in Sona. It includes the details of service provider, bandwidth, speed and accessibility.

Table 10.45 Internet Details

Internet Details	
Name of the Internet provider	Airtel+Tata Communication Limited
Available bandwidth	Leased Line
Access speed	155+50 Mbps(1:1)Symmetric
Availability of Internet in an exclusive lab	Yes
Availability in most computing lab	Yes
Availability in Departments and other units	Yes
Availability in Faculty rooms	Yes
Institute own e-mail facility to faculty/students	Yes
Security/privacy of e-mail/internet users	Yes
Wi Fi availability:	Yes

The Cyber roam Model 500iNG It provides the security against threats in the following

Web and application filter

Intrusion prevention system

Gateway antivirus

Gateway anti-spam

Handled 25 lakhs sessions

B. Safety Norms and Checks

Checks for wiring and electrical installations for leakage and earthing

Proper fencing for high tension equipment

Lightning arresters

Proper overload & earth fault protections

Rubber mats

Earthing arrangements

Use of ISS certified materials

Periodical testing of protective equipment

Underground cables distribution

Preventive maintenance works

Firefighting measurements: Effective safety arrangements with emergency/ multiple exits and ventilation/ exhausts in auditoriums and large class rooms/ laboratories, fire-fighting equipment and training, availability of water and other such facilities.

Fire extinguishers are provided in all the places where they are required.

Safety civil structure

All safety measures like helmets, safety belts, goggles etc., are used in construction works.

Area surrounding the buildings under construction is cordoned off and entry is restricted.

Handling hazardous chemicals and other such activities

Display boards giving clear instructions are kept in important locations.

Counseling and Emergency Medical Care and First aid

Institute through its health Centre provides preventive, promotive& curative health services to thestudents, employees & their families. Resident doctor on campus & 24 x 7 availability ofambulance services to take care of emergency needs.

A holistic health service available at health centre includes physician and counselors. Alternative health services like Homeopathy & yoga areavailable. Referral for Ayurvedicservices is available. Physiotherapy services promote fitness &address sports related problems.

First aid facility is provided at all hostels.

Declaration

I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines in force as on date and the institute shall fully abide by them. It is submitted that information provided in this Self-Assessment Report is factually correct. I understand and agree that an appropriate disciplinary action against the Institute will be initiated by the NBA in case any false statement/information is observed during pre-visit, visit, post visit and subsequent to grant of accreditation.

Date: **Signature & Name**

Place: **Head of the Institution with seal**

ANNEXURES

ANNEXURE I

PROGRAM OUTCOMES

On completion of the B.E (ECE) degree graduates will be able to

1. Utilize the basic knowledge in mathematics, science and engineering in Electronics and Communication Engineering field.

2. Identify, formulate and solve complex problems to achieve demonstrated conclusions using mathematical principles and engineering sciences.

3. Design system components that meet the requirement of public safety and offer solutions to the societal and environmental concerns.

4. Apply research based knowledge to design and conduct experiments, analyze, synthesize and interpret the data pertaining to Electronics and Communication Engineering problems and arrive at valid conclusions.

5. Construct, choose and apply the techniques, resources and modern engineering tools required for Electronics and Communication Engineering applications.

6. Apply the contextual knowledge to assess societal, health, safety and cultural issues and endure the consequent responsibilities relevant to the professional engineering practice.

7. Examine the impact of engineering solutions in global and environmental contexts and utilize the knowledge for sustained development.

8. Develop consciousness of professional, ethical and social responsibilities as experts in the field of Electronics and Communication Engineering.

9. Perform effectively as a member/leader in multidisciplinary teams.

10. Communicate the engineering activities to engineering society for documentation and presentation.

11. Demonstrate knowledge and understanding of the engineering and management principles to manage projects in multidisciplinary environment.

12. Demonstrate resourcefulness for contemporary issues and lifelong learning.

PROGRAM SPECIFIC OUTCOMES

On the completion of the B.E (ECE) degree the Electronics and Communication graduates will be able to

PSO1 Apply the fundamental concept of Electronics and Communication Engineering to design a variety of components and systems for applications including signal processing, Image processing, Communication, Networking, Embedded systems, VLSI and control system.

PSO2 Select and apply cutting-edge engineering hardware and software tools to solve complex Electronics and Communication Engineering problems.

ANNEXURE 1.4

Detail of different committees in the department

DEPARTMENT ACADEMIC COMMITTEE [DAC]

The following list of faculty members are the members of department academic committee. They are monitoring the academic activities of faculty members and academic performance of students. It is the responsibility of the committee to prepare the result analysis for both Continuous Internal Evaluation (CIE) test and Semester End Examinations (SEE).

S. No.	Academic year	Name of the Faculty Member	Designation
1	2017-18	Dr. R.S.Sabeenian	Professor & Head
2		Dr. R.Vinod kumar	Professor
3		Dr. K.R.Kavitha	Asso. Professor
4		Ms. S.Vijayalakshmi	Asst. Professor
5		Ms. R.Gayathri	Asst. Professor
6		Ms. P. Priya	Asst. Professor
1.	2016-17	Dr.Kishana Ram Kashwan	Professor & Head
2.		Dr.R.S.Sabeenian	Professor & Deputy Head
3.		Dr.R.Vinod kumar	Professor
4.		Ms.S.Vijayalakshmi	Asst. Professor
5.		Ms.M.Senthil Vadivu	Asst. Professor
1.	2015-16	Dr.B.Gopi	Professor & Head
2.		Dr.R.S.Sabeenian	Professor
3.		Dr.R.Vinod kumar	Professor
4.		Dr.B.Thiyaneswaran	Asst. Professor
5.		Ms.S.Vijayalakshmi	Asst. Professor

DEPARTMENT AUDIT COMMITTEE [DAUC]

Department Audit committee is formed to conduct the audit for the CIE tests conducted for all the years. The committee is audited the question paper setting, whether Bloom's taxonomy is followed and the correctness of the answer paper evaluation. The committee is submitted a report on each audit which is submitted to the Examination cell.

Sl. No	Academic year	Name of the Faculty Member	Designation
1.	2017-18	Dr. R.S.Sabeenian	Professor & Head
2.		Dr. R.Vinod kumar	Professor
3.		Prof. J.P.Senthil Kumar	Asso.Professor
4.		Prof. S.Deepa	Asso.Professor
5.		Dr. K.R.Kavitha	Asso.Professor
6.		Dr. N.Sasirekha	Asso.Professor
7.		Prof .J.Harirajkumar	Asso.Professor
8.		Ms. R.Gayathri	Asst.Professor
9.	2016-17	Dr.R.S.Sabeenian	Professor & Head
10.		Dr.R.Vinod kumar	Professor
11.		Prof.J.P.Senthil Kumar	Asso.Professor
12.		Prof.S.Deepa	Asso.Professor
13.		Dr.K.R.Kavitha	Asso.Professor
14.		Dr.N.Sasirekha	Asso.Professor
15.		Mr.J.Harirajkumar	Asso.Professor
16.		Ms.M.Senthil Vadivu	Asst. Professor
17.	2015-16	Dr.B.Gopi	Professor & Head
18.		Dr.R.S.Sabeenian	Professor
19.		Dr.R.Vinod kumar	Professor
20.		Prof.J.P.Senthil Kumar	Asso.Professor
21.		Prof.S.Deepa	Asso.Professor
22.		Dr.K.R.Kavitha	Asso.Professor
23.		Dr.N.Sasirekha	Asso.Professor
24.		Mr.J.Harirajkumar	Asso.Professor
25.		Dr.B.Thiyaneswaran	Asst.Professor

DEPARTMENT CONSULTATIVE COMMITTEE [DCC]

The department consultative committee is framed to give advices on academic and professional activities, guide and offer suggestions to the faculty members and students for the submission of project proposals.

Sl.No	Academic year	Name of the Faculty member	Designation
1.	2017-18	Dr. R.S. Sabeenian	Professor & Head
2.		Dr. R.Vinod Kumar	Professor
3.		Prof. S. Deepa	Asso. Professor
4.		Dr. K.R. Kavitha	Asso. Professor
5.		Prof .J. Harirajkumar	Asso. Professor
6.		Ms. T. Shanthi	Asst. Prof. (Sr.G)
7.		Ms. S.Vijayalakshmi	Asst. Professor
8.		Dr.Kishana Ram Kashwan	Professor & Head
9.	2016-17	Dr.R.S.Sabeenian	Professor & Deputy Head
10.		Dr. K.R. Kavitha	Asso. Professor
11.		Prof .J. Harirajkumar	Asso. Professor
12.		Ms.M.Susaritha	Asst. Professor
13.		Ms. S.Vijayalakshmi	Asst. Professor
14.		Ms.D.P.Sangeetha	Asst. Professor
15.		Ms.A.Sangeetha	Asst. Professor
16.		Dr.B.Gopi	Professor & Head
17.	2015-16	Dr. R.S. Sabeenian	Professor
18.		Prof.J.P.Senthil kumar	Asso.Professor
19.		Dr. K.R. Kavitha	Asso. Professor
20.		Mr.J. Harirajkumar	Asso. Professor
21.		Ms. T. Shanthi	Asst. Prof. (Sr.G)
22.		Ms.M.Senthil Vadivu	Asst.Professor
23.		Ms. S.Vijayalakshmi	Asst. Professor

CLASS COUNSELORS LIST

Academic year : 2017-18

Sl.No	year	Name of the Faculty member	Designation
1.	II year	A-S.Vijayasharathi	Asst. Professor
		B-B.Geethalakshmi	Asst. Professor
		C-M.Amutha	Asst. Professor (Sr.G)
		D-K.Saranya	Asst. Professor
2.	III year	A-S.Jayapoorani	Asst. Professor
		B-N.Sasirekha	Asso. Professor
		C-K.R.Kavitha	Asso. Professor
		D-M.Jamuna rani	Asst. Professor (Sr.G)
3.	IV year	A-R.Vinodkumar	Professor
		B-T.Shanthi	Asso. Professor
		C-S.Deepa	Asso. Professor

CLASS COUNSELORS LIST

Academic year : 2016-17

Sl.No	year	Name of the Faculty member	Designation
1.	II year	A-S.Jayapoorani	Asst. Professor
		B-N.Sasirekha	Asso. Professor
		C-K.R.Kavitha	Asso. Professor
		D-M.Jamuna rani	Asst. Professor (Sr.G)
2.	III year	A-R.Vinodkumar	Professor
		B-D.Jayanthi	Asso. Professor
		C-S.Deepa	Asso. Professor
3.	IV year	A-M.Susaritha	Asst. Professor
		B-D.P.Sangeetha	Asst. Professor
		C-A.Sangeetha	Asst. Professor

CLASS COUNSELORS LIST

Academic year : 2015-16

Sl.No	year	Name of the Faculty member	Designation
1.	II year	A - R.Vinodkumar B - D.Jayanthi C - S.Deepa	Professor Asso. Professor Asso. Professor
2.	III year	A - M.Susaritha B - D.P.Sangeetha C - A.Sangeetha	Asst. Professor Asst. Professor Asst. Professor
3.	IV year	A - M.Senthil vadivu B - J.P.Senthil kumar C - T.Shanthi	Asst. Professor Asst. Professor Asst. Professor (Sr.G)

Annexure 2.1.2

Structure of the Curriculum for other regulations

Regulations- 2015

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture Credits (L)	Tutorial (T)	Practical# (P)	Total Hours	
U15ENG101	Technical English – I	2	0	2	4	3
U15MAT102	Matrices and Calculus	3	2	0	5	4
U15PHY103	Engineering Physics	3	0	0	3	3
U15CHE104	Engineering Chemistry	3	0	0	3	3
U15FOC105	Fundamentals of Computing	3	0	0	3	3
U15BEE106	Basic Electrical and Electronics Engineering	3	0	0	3	3
U15PCL107	Physics and Chemistry Laboratory - I	0	0	2	2	1
U15CPL108	Computer Practices Laboratory	0	0	2	2	1
U15EPL109	Engineering Practices Laboratory	0	0	2	2	1
U15ENG201	Technical English – II	2	0	2	4	3
U15MAT202	Vector Calculus and Complex Analysis	3	2	0	5	4
U15PHY203A	Physics For Electrical and Electronics Engineering	3	0	0	3	3
U15CHE205A	Chemistry For Electrical and Electronics Engineering	3	0	0	3	3
U15CPR206	Introduction to Data Structures in C	3	0	0	3	3
U15EGR207	Engineering Graphics	2	2	0	4	3
U15PCL208	Physics and Chemistry Laboratory – II	0	0	2	2	1
U15CPL209	Programming Laboratory II	0	0	3	3	1
U15BEEL210	Basic Electrical and Electronics Engineering Laboratory	0	0	3	3	1
U15MAT301C	Transforms and Linear Algebra	3	2	0	5	4
U15EC301	Electronic Devices	4	0	0	4	4
U15EC302	Network Analysis and Synthesis	4	0	0	4	4
U15EC303	Digital System Design	4	0	0	4	4
U15EC304	Signals and Systems	4	0	0	4	4
	Seminar*	0	0	1	1	0
	Library*	0	0	1	1	0

U15EC305	Electronic Devices Laboratory	0	0	4	4	2
U15EC306	Digital Laboratory	0	0	4	4	2
U15ENG301	English Laboratory	0	0	4	4	2
U15MAT401C	Probability and Stochastic Processes	3	2	0	5	4
U15EC401	Engineering Electromagnetics	3	2	0	5	4
U15EC402	Electronic Circuits	3	0	0	3	3
U15EC403	Linear Integrated Circuits	3	0	0	3	3
U15EC404	Measurements and Instrumentation	3	0	0	3	3
	Games and Sports*	0	0	2	2	0
	Library*	0	0	2	2	0
	Seminar*	0	0	2	2	0
U15EC405	Linear Integrated Circuits Laboratory	0	0	4	4	2
U15EC406	Electronic Circuits and Simulation Laboratory	0	0	4	4	2
U15EC407	Virtual Instrumental SCI Laboratory	0	0	4	4	2
U15EC501	Analog Communication Systems	3	0	0	3	3
U15EC502	Digital Signal Processing	3	2	0	5	4
U15EC503	Transmission Lines and Waveguides	3	2	0	5	4
U15EC504	Microprocessors and Microcontroller	3	0	0	3	3
U15CS507	C++ with Data Structures	3	0	0	3	3
U15EC505	Automatic Control Systems	3	2	0	5	4
	Games and Sports*	0	0	2	2	0
	Library*	0	0	1	1	0
	Group Discussion*	0	0	2	2	0
	Comprehensive Review*	0	0	2	2	0
U15EC506	Microprocessors and Microcontroller Laboratory	0	0	4	4	2
U15EC507	Digital Signal Processing Laboratory	0	0	4	4	2
U15EC601	Digital Communication	3	2	0	5	4
U15EC602	Antenna and Wave Propagation	3	2	0	5	4
U15GE601C	Quantitative Aptitude and Reasoning	1	4	0	5	3
	Professional Elective - I	3	0	0	3	3
	Professional Elective - II	3	0	0	3	3
	Open Elective - I	3	0	0	3	3
	Library*	0	0	1	1	0
	Seminar*	0	0	1	1	0
	Comprehensive Review*	0	0	2	2	0
	Internship / In-plant Training	0	0	0	0	0

U15EC603	Communication Laboratory	0	0	4	4	2
U15CS605	C++ Laboratory	0	0	4	4	2
U15EC604	Mini Project	0	0	4	4	2
	Professional Ethics and Human Values	3	0	0	3	3
	Microwave Engineering	3	0	0	3	3
	Professional Elective - III	3	0	0	3	3
	Professional Elective - IV	3	0	0	3	3
	Professional Elective – V	3	0	0	3	3
	Open Elective - II	3	0	0	3	3
	Comprehensive Review*	0	0	2	2	0
	Library*	0	0	2	2	0
	Seminar*	0	0	2	2	0
	Internship / In-plant Training	0	0	0	0	0
	Microwave Laboratory	0	0	4	4	2
	Embedded Systems Laboratory	0	0	4	4	2
	Major Project	0	0	20	20	10
	Internship / In-plant Training	0	0	0	0	0
	Total	**119**	**26**	**115**	**260**	**176**
LIST OF PROFESSIONAL ELECTIVES						
U15EC901	Satellite Communication	3	0	0	3	3
U15EC902	Telecommunication and Switching Networks	3	0	0	3	3
U15EC903	Artificial Intelligence	3	0	0	3	3
U15EC904	Computer Networks	3	0	0	3	3
U15EC905	Digital Image Processing	3	0	0	3	3
U15EC906	CMOS VLSI Design	3	0	0	3	3
U15EC907	Optical Fibre Communication	3	0	0	3	3
U15EC908	Cellular and Mobile Communication	3	0	0	3	3
U15EC909	Sensor Networks	3	0	0	3	3
U15EC910	Network Security	3	0	0	3	3
U15EC911	Embedded Systems	3	0	0	3	3
U15EC912	Modern Radio Communication	3	0	0	3	3
U15EC913	RADAR Engineering	3	0	0	3	3
U15EC914	FPGA based System Design	3	0	0	3	3
U15EC915	Numerical Methods for Engineering Computation	3	0	0	3	3
U15EC916	Disaster Management	3	0	0	3	3

***No credit for Seminar, Library, Games and Comprehensive review.**

Regulations- 2015R

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	
U15ENG101AR	Technical English – I	2	0	2	4	3
U15MAT102CR	Mathematics – I for ECE	3	2	0	5	4
U15PHY103BR	Physics for ECE	4	0	0	4	4
U15CHE104BR	Applied Chemistry	3	0	0	3	3
U15CPR105BR	C Programming	3	0	0	3	3
U15EGR106BR	ngineering Graphics for ECE	2	2	0	4	3
U15PCL107BR	Physics and Chemistry Laboratory - I	0	0	4	4	2
U15CPL108BR	C Programming Laboratory	0	0	4	4	2
	Library	0	0	2	2	0
	Seminar	0	0	2	2	0
U15ENG201AR	Technical English – II	2	0	2	4	3
U15MAT202CR	Mathematics – II for ECE	3	2	0	5	4
U15MEC203R	Basic Mechanical Engineering	3	0	0	3	3
U15CHE204BR	Environmental Engineering Science	3	0	0	3	3
U15BEE205BR	Basic Electrical Engineering	3	0	0	3	3
U15PCL206CR	Physics and Chemistry Laboratory - II	0	0	4	4	2

U15EPL207R	Engineering Practices Laboratory	0	0	4	4	2
U15BEL208R	Basic Electrical Engineering Laboratory	0	0	4	4	2
	Library*	0	0	2	2	0
	Seminar*	0	0	2	2	0
U15MAT301CR	Transforms and Linear Algebra	3	2	0	5	4
U15EC301R	Electronic Devices	3	0	0	3	3
U15EC302R	Network Analysis and Synthesis	3	2	0	5	4
U15EC303R	Digital System Design	3	0	0	3	3
U15EC304R	Signals and Systems	3	2	0	5	4
	Seminar*	0	0	1	1	0
	Library*	0	0	1	1	0
U15EC305R	Electronic Devices Laboratory	0	0	2	2	1
U15EC306R	Digital Laboratory	0	0	2	2	1
U15ENG302R	English Laboratory	0	0	4	4	2
U15GE301R	Soft Skills and Aptitude - I	0	0	2	2	1
U15MAT401CR	Probability and Stochastic Processes	3	2	0	5	4
U15EC401R	Engineering Electromagnetics	3	2	0	5	4
U15EC402R	Electronic Circuits	3	0	0	3	3
U15EC403R	Linear Integrated Circuits	3	0	0	3	3
U15EC404R	Digital Signal Processing	3	2	0	5	4

U15EC405R	Analog Communication Systems	3	0	0	3	3
	Library*	0	0	1	1	0
	Seminar*	0	0	2	2	0
U15EC406R	Linear Integrated Circuits Laboratory	0	0	2	2	1
U15EC407R	Electronic Circuits and Simulation Laboratory	0	0	2	2	1
U15EC408R	Digital Signal Processing Laboratory	0	0	2	2	1
U15GE401R	Soft Skills and Aptitude - II	0	0	2	2	1
	Digital Communication	3	0	0	3	3
	Transmission Lines and Waveguides	3	2	0	5	4
	Microprocessors and Microcontroller	3	0	0	3	3
	C++ with Data Structures	3	0	0	3	3
	Automatic Control Systems	3	2	0	5	4
	VLSI Design	3	0	0	3	3
	Library*	0	0	1	1	0
	Seminar*	0	0	2	2	0
	Microprocessors and Microcontroller Laboratory	0	0	2	2	1
	VLSI Laboratory	0	0	2	2	1
	Communication Laboratory	0	0	4	4	2
	Soft Skills and Aptitude - III	0	0	2	2	1
	Antenna and Wave	3	0	0	3	3

	Propagation					
	Digital Image Processing	3	0	0	3	3
	Professional Ethics and Human Values	3	0	0	3	3
	Professional Elective - I	3	0	0	3	3
	Professional Elective - II	3	0	0	3	3
	Open Elective - I	3	0	0	3	3
	Library*	0	0	1	1	0
	Group Discussion*	0	0	2	2	0
	Internship / Industrial Training	0	0	0	0	0
	Digital Image Processing Laboratory	0	0	2	2	1
	C++ Laboratory	0	0	4	4	2
	Soft Skills and Aptitude - IV	0	0	2	2	1
	Mini Project	0	0	4	4	2
	Embedded Systems	3	0	0	3	3
	Optical Fiber Communication	3	0	0	3	3
	Microwave Engineering	3	0	0	3	3
	Professional Elective - III	3	0	0	3	3
	Professional Elective - IV	3	0	0	3	3
	Open Elective - II	3	0	0	3	3
	Library*	0	0	1	1	0

	Internship / Industrial Training	0	0	0	0	0
	Microwave and Optical Laboratory	0	0	4	4	2
	Embedded Systems Laboratory	0	0	4	4	2
	Comprehensive Review	0	0	2	2	1
	Major Project	0	0	20	20	10
	Internship / Industrial Training	0	0	0	0	0
	Total	**118**	**22**	**114**	**254**	**176**
LIST OF PROFESSIONAL ELECTIVES						
	Satellite Communication	3	0	0	3	3
	Wireless Communication	3	0	0	3	3
	Cellular and Mobile Communication	3	0	0	3	3
	Cellular Technologies and Applications	3	0	0	3	3
	Modern Radio Communication	3	0	0	3	3
	Statistical Theory of Communication	3	0	0	3	3
	High Speed Network	3	0	0	3	3
	Computer Networks	3	0	0	3	3
	Wireless Networks	3	0	0	3	3
	Network Security	3	0	0	3	3
	Advanced Digital Signal Processing	3	0	0	3	3
	Speech Processing	3	0	0	3	3

	Artificial Neural Network	3	0	0	3	3
	Pattern Recognition	3	0	0	3	3
	Artificial Intelligence	3	0	0	3	3
	Advanced Microprocessors	3	0	0	3	3
	FPGA based System Design	3	0	0	3	3
	Computer Architecture	3	0	0	3	3
	Measurement and Instrumentation	3	0	0	3	3
	Bio-Medical Instrumentation	3	0	0	3	3
	Virtual Instrumentation	3	0	0	3	3
	RADAR Engineering	3	0	0	3	3
	RF MEMS	3	0	0	3	3
	Electromagnetic Interference and Electromagnetic Compatibility	3	0	0	3	3
	Antennas for Wireless Application	3	0	0	3	3
	Nano Electronics	3	0	0	3	3
	Disaster Management	3	0	0	3	3
	Numerical Methods for Engineering Computation	3	0	0	3	3

***No credit for Seminar, Library, Games and Group Discussion.**

Annexure 2.1.3.

Components of the curriculum for other regulations

Regulation - 2015

Course Component	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic Sciences	17	36	30
Engineering Sciences	16	39	29
Humanities and Social Sciences	6	15	11
Program Core	39.6	95	70
Program Electives	9	15	15
Open Electives	3.4	6	6
Project(s)	6.8	24	12
Internships/Seminars	-	6	0
Employability Enhancement	1.7	5	3
		Total number of Credits	**176**

Regulation - 2015R

Course Component	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic Sciences	15.3	35	27
Engineering Sciences	17.6	42	31
Humanities and Social Sciences	8	18	14
Program Core	39.7	89	70
Program Electives	7	12	12
Open Electives	3.4	6	6
Project(s)	6.8	24	12
Internships/Seminars	-	9	-
Employability Enhancement	2.2	8	4
		Total number of Credits	**176**

ANNEXURE 2.2.3

Details of Student Project

Guidelines for preparation of project reports and thesis.

1. The slides should have title of the project, literature review, existing methodology based on literature, draw back on existing methods, motivation, objective, applications, block diagram, stage by stage explanation, results & discussion, Work completed chart, publication if any, and reference with standard IEEE format.
2. The first slide consists of title of project work, batch no, name of team members with register numbers and supervisor.
3. Literature review may within 2 slides. It may consist of 2 column table. 1st column consists of 1st author name and title and corresponding explanation is given 2nd column (use bullets). **Kindly avoid the paragraph style.**
4. Existing methodology within 1 slide. It may consist of 2 column table. 1st column consists of method name and corresponding draw back may give in 2nd column (use bullets). **Kindly avoid the paragraph style.**
5. Motivation and objective are to be with 1-2 lines and some cases maximum of 3 lines. (Use separate slides).
6. Application of the project.
7. The block diagram of the project should be neatly drawn and **don't copy** from the other sources such as journal papers or Google images.
8. The stage by stage explanation may give it in consequent slides.
9. In case of hardware projects, each modules may explained separately as follows,
    - The complete circuit diagram shown in one slide. (Draw the circuit diagram using ORCAD, Multi-SIM or work bench etc..)
    - Use 1 slide for each module (some cases 2 slides).
    - It consists of module diagram, circuit diagram and component list with range if any.
    - Result obtained on the module.
10. In case of simulation projects, each stage may explained separately as follows,
    - Use 1 slide for each stage.
    - The slide consists of explanation, exact command/ function/ tool used.
    - Result obtained on the stage.

11. The overall input and result obtained is given in separate slide and any measurement parameter such as accuracy, sensitivity, etc may also give).
12. Comparison of existing method with proposed method may give in separate slide.
13. Collective photography of project may within a slide.
14. List of publication in separate slide.
15. Conclusion.
16. Reference should list in IEEE format.
17. The slides should be within 18 to 20.
18. The slide number and date of presentation are included in all the slides except slide number in 1st slide.
19. The above guidelines are mandatory and student may innovatively add based on their needs.

INSTRUCTION FOR PREPARING PROJECT REPORT

- The template should be strictly followed.

  Short tips:

  Page setup: Top: 1.3", bottom: 1.1", Left: 1.4", Right: 1.2". **Paper:** A4.

  Report stacked in the following order:

Cover Page & Title Page

Bonafide Certificate

Abstract

Table of Contents

List of Tables

List of Figures

List of Symbols, Abbreviations and Nomenclature

Chapter1- Introduction.

Chapter2- Literature review. (Literature, Existing Methods, draw backs).

Chapter3- Problem statement (Covers existing methods, drawbacks, motivation, objective and Applications).

Chapter4- Proposed methodology (Block diagram, circuit diagrams).

Chapter5

Chapter6 **-Use separate chapters for each module.**

Chapter7

Chapter8- Results & Discussion.

Chapter9- Conclusion.

Chapter10-List of publications.

Chaptet11-Reference.

Appendices

- **Photography for hardware project – colour print out.**

- The above guidelines are to be followed for preparing report and hard copy of report template.

Mapping of project title with PO

CAY (2017-18)

Project No	Project Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2
1.	Wireless Health Mentoring System	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.	Real time GSM based skid cooling LPG Pipeline Monitoring System	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.	Advance fire detection in Video using Image Processing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.	Recognition and classification of Hand Written Tamil Character from palm leaves Manuscripts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5.	Segmentation, feature extraction & classification of brain tumour through MRI Images	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.	Deep sea fisherman patrol system using Arduino	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7.	Implementation of Efficient Vending Machine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

8.	Environment based irrigation system using wireless technologies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
9.	Library automation using RFID Tag	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10.	Blood Vessel Segmentation using image Processing Technique	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
11.	Garbage collection and classification Robot Using YOLO Architecture	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12.	Advance fire detection in Video using Image Processing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
13.	Smart notice board using raspberry pi and node-red	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
14.	Density based smart lighting system using IOT.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15.	Adaptive equalization of Lorentz system &its application in cryptography	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
16.	Face recognition using deep learning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
17.	Digital image enhancement using SVD-DWT techniques.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

18.	Hyperspectral image classification using svm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
19.	Image enhancement of micro structural images.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
20.	Extraction of human features from closed circuit television video footage for investigation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
21.	IOT and finger print based patient report	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
22.	Auto irrigation system using soil moisture sensor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
23.	Women's safety device using GSM & GPS and shock generation circuit	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
24.	Camera stabilization over vertical axis using laser as reference point	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
25.	ATM transaction using fingerprint recognition and aadhar card	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
26.	Implementation of analytics for APIS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
27.	Fire fighting robot	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
28.	Removal of noise in ECG signal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

29.	A novel paradigm of blind indoor navigation system using Li-Fi technology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
30.	Data acquisition system for environmental monitoring	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
31.	Estimating power releases from corona discharges using dip technique	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
32.	Smart vehicle tracking & monitoring system using arm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
33.	Image enhancement using PSO for video based image analysis	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
34.	Automatic detection of entry in to a restricted area using IOT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
35.	CNC writing machine using Arduino	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
36.	Automatic speed control according to speed limits and GPS tracking for accidental monitoring of vehicle	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
37.	Android based robotic control for surveillance application	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
38.	Design and implementation of smart energy meter using IOT.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
39.	Reliable data collection using WSN on maps	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

CAY m1 (2016-2017).

Project No	Project Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1.	Microcontroller based device to detect vital signs using microwave signals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.	Development of patch antenna for RFID for smart library management	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.	Recognition of handwritten tamil characters in palm leaf manuscripts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.	DLC of defects in fabrics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5.	Energy efficient IM-leach protocol for wireless sensor network	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.	Implementation of SOPC based on audio application using de2 board	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7.	Railway signal automation using wireless communication	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8.	Automatic accident control and announcement system	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
9.	Automatic attendance system by visual programming language	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

10.	Fault detection in PCB using image processing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
11.	Smart traffic control system with emergency vehicle using IOT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12.	Automatic bus ticket management system	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
13.	Blood vessel segmentation of fundus images using morphological operation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
14.	Identification of tumors in lungs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15.	IOT based power theft monitoring system	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
16.	Identification of car using voice recognition system	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
17.	Soil nutrient analysing and monitoring using zigbee network	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
18.	Abnormality and severity detection of brain tumours in MR images	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
19.	Early detection of glaucoma using thresholding technique	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
20.	Virtual mouse using hand gestures and colour detection	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

21.	Analysis and prediction of the freezing of gait using EEG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
22.	Adaptive speed governor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
23.	Obesity reduction using smart shoe	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
24.	Development of animal detection algorithm for advanced driver assistant system	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
25.	Denoising of degraded ancient documents using modified decision based unsymmetric trimmed median filter	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
26.	Gray level rectangular patterned co-occurrence matrix for texture identification	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
27.	Design of low-power reconfigurable CSA and RCA by using HBFA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
28.	Mobile robot localization using phase of passive uhf RFID signal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
29.	Li-Fi technology on vehicle application	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
30.	Wireless e-notice board Using IOT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
31.	Intelligent autonomous ironing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

	machine using PIC microcontroller														
32.	Charging of mobile phone by heat using see beck effect	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
33.	A low power broad-bandwidth noise cancellation VLSI circuit design for in-ear headphones	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
34.	Milk monitoring system for early detection of microbial activity	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
35.	Real time tracking and soldiers monitoring system using raspberry-pi	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
36.	Arabic text to voice conversion using image processing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
37.	Arduino based industrial safety equipment using wireless technology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
38.	Animal health monitoring system using GSM and GPS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
39.	Water quality measurement and theft Detection and control	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

CAY m2 (2015-16)

Project No	Project Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1.	Eco-friendly air-conditioner	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.	Automated coach for sports using multiple moving object tracking and analysis	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.	Improving the performance of transform based super resolution using pre and post filtering techniques	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.	Load balancing of mobile ad hoc network using ant-colony algorithm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5.	Energy efficiency clustering protocol for wireless sensor network	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.	Energy efficiency clustering protocol for wireless sensor network	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

7.	Modeling of strain compensated quantum dot solar cells	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8.	Design of BCD to seven-segment code converter using quantum dot cellular automata	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
9.	Prescription drug abuse control system	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10.	Medical system for rural areas	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
11.	Automated door locking system for class rooms	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12.	Performance analysis of log periodic antenna for celestial applications	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
13.	Diagnosis of diabetic retinopathy using GLCM features	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
14.	Virtual dress up system	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15.	Wireless wearable personal protection device	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
16.	Smart and intelligent auditorium	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
17.	VLT percentage detector for car windows	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
18.	Glaucoma detection	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

19.	Industrial automation using IOT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
20.	Energy efficient CMAC protocol	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
21.	Pothole detector	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
22.	Encoding and decoding techniques for digital watermarking	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
23.	Autonomous unmanned aerial vehicle	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
24.	Interfacing mobile application with vehicle	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
25.	A contrast improved colour to greyscale conversion using least square methods	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
26.	Certain investigations on evaluating the performance of adaptive document image binarization technique	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
27.	Classification and detection of melanoma	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
28.	Pedestrian detection using imaging technique for ADAS and security applications	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
29.	EEG-based mobile robot control through an adaptive brain robot	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

	interface														
30.	Biometric security system for two wheelers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
31.	Online network enabled industry pollution monitoring and control system	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
32.	Aiding readers of library	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
33.	Forest fire control system	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
34.	Integrated system for safe transportation of children to school	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
35.	Drowsiness detection and accident control system in vehicles	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
36.	Character recognition from document images	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
37.	Text segmentation from the image document	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
38.	An interactive cane for visually impaired	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
39.	Detection and measurement module implementation for nuclear radiation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
40.	Energy efficiency in wireless	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

	sensor networks using MEMS														
41.	An intelligent target localization in wireless sensor networks	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
42.	Photo sensitive and vibration sensor security system with random password change by using GSM modem	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
43.	Novel FPGA implementation of hand sign recognition system with som-hebb classifier	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

ANNEXURE 2.2.5

Details of Students' training

Academic Year: 2017– 2018

Name of the student	Year & sec	Topic /Area	Company Name	Company Sector & Incorporation Status	Date From Date To	No Of Students
1. G.Palanisamy 2. B.Mathurshan 3. N.Murali Krishnan 4. M.Mohammed Mustaffa 5. S.K.Kiruthik Pranav 6. S.Guru Narayanan.	IV	Arduino	Exor Robotics Private limited	Engineering Private	12.7.2017 to 14.7.2017	6
1. Nadhiyasrinithi S 2. Roshini S 3. Obulakshmi O 4. Ramya J 5. Nivetha A 6. Praveena T 7. Ragul M 8. Pranav Jothi M 9. Nandha Kumar P 10. Nithin Samuel A 11. Praveen S	III	Fundamentals of Telecommunications	BSNL,Salem	Telecom Government	27.11.2017 to 1.12.2017	12

12. Prabhakaran L						
1. Nadhiyasrinithi S 2. Pharkavi M 3. Monisha A 4. Naveena P 5. Ramya J 6. Praveena T 7. Ragul M 8. Pranav Jothi M 9. Nandha Kumar P 10. Priyadharshini G 11. Muthunarayanan S 12. Prabhakaran L 13. N.Mukunth 14. J.Sai pradeep 15. G.Saravanan 16. T.Murli kumar 17. M.Rajkumar	III	Raspberry Pi	Enthu Technologies, Coimbatore	Private Engineering	26.12.2017 to 30.12.2017	17
1.Raunak	III	Making of watches and case assembly unit	TITAN Hosur	Private Manufacturing	15.5.2017 to 20.5.2017	1
1.Praveena T 2.Priyadharshini G	III	Manufacturing	TANMAG, Salem	Government Mining	20.06.2017 to	2

		of magnesites			22.06.2017	
1. Pranav Jothi M 2. Ashwanth K 3. Hari Krishna G R 4. Dinesh B 5. Anantha Murugan .S 6. Amzed Basha A 7. Deva Prakash K 8. Ashwathi N 9. Deepika S 10. Annapoorani S 11. Amritha D	III	PCB Designing ,circuit creation, troubleshooting & product manufacturing	Sunshive Electronic Solutions, Coimbatore	Private Engineering	27.11.2017 to 29.11.2017	11
1.Roshini.S	III	Industry safety Awareness & PCB	VISTEON Electronics,Chennai	Private Engineering	29.05.2017 to 2.6.2017	1
1.Muthunarayanan S	III	Fundamentals of Telecommunications	BSNL,Trichy	Telecom Government	27.11.2017 to 1.12.2017	1
1.Raj Thilak	III	Programming	NI LabVIEW CLAD	Private Engineering	4.12.2017 to	1

		using LAbVIEW	Certification		22.12.2017	
1. Dharshini V 2. Saranya R 3. Sumathi L	II	Embedded Systems	UNIQ Technologies	Engineering Private	27.12.17 to 29.12.17	3
1. A.Kavin 2. P.N.Keerthi 3. P. Indhumathi 4. G.Gowtham Venkatesh 5. S.P.Keerthana 6. G.Madhumita 7. V.Mohan Vel 8. M.Hariharasudhan 9. A.Imtheyasbasha 10. D.Kishore 11. J.Harish Kumar 12. G.V.Kiran Aditya	III	IPv6	Bharat Sanchar Nigam Limited, RGMTTC, Chennai	Telecom Government	22.1.2018 to 24.1.2018	12
1. Udhayanithi T 2. Gowtham U 3. Surya V 4. Viknesh S R 5. Shanmugavel M 6. Vikram S 7. Vignesh N 8. Surendar G 9. Siddhu J 10. Venkatesh M 11. Saran Kumar S V 12. Vijay K 13. Siva Kumar M 14. Yuvaraj Kumar K	III	Telecom	Bharat Sanchar Nigam Limited, RGMTTC, Chennai	Telecom Government	26.2.2018 to 5.3.2018	14

Academic Year: 2016 – 2017

Name of the student	Year & sec	Topic /Area	Company Name	Company Sector & Incorporation Status	Date From Date To	No Of Students
1.P.N.Keerthi	II	Fundamentals of Telecommunications	BSNL, Hosur	Telecom Government	23.05.2017 to 27.05.2017	1
2.N.Kesavan	II	PCB design and Fabrication	Sona continuing education training centre, Sona college of Technology, Salem	Engineering Private	05.06.2017 to 10.06.2017	1
1. M.Mohammed Muhil 2. P.Suguna 3. U.Gowtham 4. N.Vignesh 5. P.Suguna 6. U.Gowtham 7. N.Vignesh 8. K.S.Shrin Shahana 9. B.Shruthi 10. S.Sowmiya 11. Rajthilak S	II		UNIQ Technologies, Chennai	Engineering Private	16.05.2017 to 20.05.2017 20.05.2017 to 25.5.2017 01.06.2017 to 5.6.2017 29.05.2017 to 3.7.2017	13
1. A.Sowmyavarshine	II	Fundamentals of	Bharat Sanchar Nigam Limited	Telecom Government	15.05.2017 to	1

		Telecommunications			20.5.2017	
1.V.S.Sowmiya	II	Centralized Electrical Maintenance	SAIL,Salem	Basic Metal and Steel Public ,central	07.06.2017 to 9-6-2017	1
1.S.Sowmiya	II	Centralized Electrical Maintenance	SAIL,Salem	Basic Metal and Steel Public ,central	20.06.2017 to 23.6.2017	1
1. V.Suchithra 2. Sowmhiyaa S 3. Thaarani M	III	Fundamentals of Telecommunications	BSNL, Chennai	Telecom Government	29.5.2017 to 2.6.2017	3
1.Santhosh Kumar R 2.Sounder R	III	Control and instrumentation, meter and relay Testing	Thermal Power Station Mettur	Manufacturing Government Body	5.6.2017 to 9.6.2017	2

Academic Year: 2015-2016

Name of the student	Year & sec	Topic /Area	Company Name	Company Sector & Incorporation Status	Date From Date To	No Of Students
1.S.Sindhuja	II	Fundamentals of Telecommunications	BSNL, Salem	Telecom Government	23.05.2015 to 27.05.2015	**1**
1. Karthikeyan M 2. Manikandan .R 3. Haja Kamaludeen Jahangeer 4. Narendran P 5. Jose paul richard gilbert D 6. Vigneswaran. D.A 7. Sri ram .R 8. Upendran.K 9. Vishwanath.G 10. Roshini.M 11. Santhyasri.M 12. Sundareswaran.S 13. Divya bharathi M 14. Divya .S 15. Garalapati	III & IV	Developing project prototype	Foundation For Innovation And Collaborative Education, (FICE) private limited, Bangalore & M.S. Ramaiah Institute of Technology	Private	27.7.2015 to 31.7. 2015	23

sunodh kumar 16. Krishna kumar.S 17. Nagendra Hari Karthick 18. P.Neranjene 19. D.Nethra devi 20. Pratul saurabh 21. Rahul S 22. Nishanth M 23. Ragunath L						

ANNEXURE 3.2.2

Course outcome attainment

2012-16 Batch

S.No	Sub Code	Course Name	Assessed COs	Direct assessment A	Indirect assessment B	Total
1.	U10GE101R	Technical English – I	CO1	85.15	88.18	86.07
			CO2	76.56	87.40	79.81
			CO3	85.93	89.50	87.01
			CO4	70.31	87.13	75.36
			CO5	77.34	88.71	80.75
2.	U10GE102R	Multivariable Calculus and Matrices	CO1	92.18	87.13	90.67
			CO2	78.90	88.71	81.85
			CO3	96.87	89.23	94.58
			CO4	82.81	87.40	84.19
			CO5	93.75	89.50	92.48
3.	U10GE103R	Engineering Physics	CO1	64.06	89.50	71.69
			CO2	57.81	90.02	67.48
			CO3	69.53	90.81	75.92
			CO4	63.28	90.55	71.46

			CO5	54.68	90.81	65.53
4.	U10GE104R	Engineering Chemistry	CO1	80.4	89.76	83.26
			CO2	85.93	89.50	87.01
			CO3	82.03	88.97	84.11
			CO4	90.62	87.66	89.74
			CO5	80.46	88.18	82.78
5.	U10GE105R	Engineering Graphics	CO1	77.34	89.23	80.91
			CO2	91.40	89.76	90.91
			CO3	81.25	89.50	83.73
			CO4	92.18	89.50	91.38
			CO5	95.31	89.76	93.65
6.	U10GE106R	Fundamentals Of Computing	CO1	75.78	88.97	79.74
			CO2	72.65	89.23	77.63
			CO3	88.28	90.81	89.04
			CO4	84.37	91.33	86.46
			CO5	87.50	91.07	88.57
7.	U10GE107R	Physic and Chemistry Lab-1	CO1	98.42	92.3	96.61

			CO2	98.42	91.60	96.38
			CO3	98.42	90.55	96.06
8.	U10GE108R	Computer Practice Lab	CO1	100	88.97	96.69
			CO2	100	90.02	97.01
			CO3	100	89.23	96.77
9.	U10GE109R	Engineering Practice Lab	CO1	100	90.81	97.24
			CO2	100	91.86	97.56
			CO3	100	92.65	97.80
10.	U10GE201R	Technical English - II	CO1	89.84	82.29	87.57
			CO2	68.75	83.33	73.12
			CO3	75.78	84.11	78.28
			CO4	82.81	83.33	82.96
			CO5	76.56	87.76	79.92
11.	U10GE202R	Vector calculus, differential equations and complex analysis	CO1	72.65	79.68	74.76
			CO2	78.90	80.98	79.53
			CO3	78.90	75.26	77.81
			CO4	84.37	80.72	83.28

			CO5	87.5	78.64	84.84
12.	U10GE203BR	Engineering Physics - II	CO1	71.87	81.51	74.76
			CO2	72.65	80.72	75.07
			CO3	53.12	82.29	61.87
			CO4	77.34	84.89	79.60
			CO5	60.93	78.64	66.25
13.	U10GE204BR	Engineering Chemistry - II	CO1	81.25	86.19	82.73
			CO2	89.84	81.25	87.26
			CO3	76.56	82.03	78.20
			CO4	70.31	86.19	75.07
			CO5	88.28	76.56	84.76
14.	U10GE205R	Programming in C	CO1	76.56	79.68	77.5
			CO2	75	82.29	77.18
			CO3	71.87	82.03	74.92
			CO4	71.09	86.45	75.70
			CO5	58.59	78.90	64.68
15.	U10GE207R	Basic Electrical and Electronics	CO1	71.09	79.94	73.75

		Engineering	CO2	67.96	81.51	72.03
			CO3	80.46	83.59	81.40
			CO4	79.68	80.20	79.84
			CO5	81.25	80.72	81.09
16.	U10GE208R	Physics and Chemistry Laboratory	CO1	90.62	87.76	89.76
			CO2	89.84	89.58	89.76
			CO3	92.96	85.67	90.78
17.	U10GE209R	C Programming Laboratory	CO1	91.40	84.11	89.21
			CO2	97.65	88.28	94.84
			CO3	100	87.76	96.32
18.	U10GE211R	Basic Electrical and Electronics Engineering Laboratory	CO1	100	86.19	95.85
			CO2	99.21	87.76	95.78
			CO3	99.21	89.58	96.32
19.	U10EC302R	Electronics Circuits-1	CO1	50.66	78.070	58.88
			CO2	67.76	80.702	71.64
			CO3	78.95	79.605	79.14
			CO4	72.37	82.895	75.53

			CO5	81.58	83.114	82.04
20.	U10EC303R	Digital Electronics	CO1	69.08	79.167	72.11
			CO2	68.42	82.018	72.50
			CO3	64.47	86.404	71.05
			CO4	73.68	84.211	76.84
			CO5	71.71	87.281	76.38
21.	U10EC304R	Signals and Systems	CO1	60.53	85.307	67.96
			CO2	67.11	78.070	70.39
			CO3	63.82	86.842	70.72
			CO4	66.45	80.263	70.59
			CO5	77.63	78.289	77.83
22.	U10EC305R	Computer Networks	CO1	58.55	81.140	65.33
			CO2	56.58	87.500	65.86
			CO3	63.16	86.842	70.26
			CO4	69.08	84.211	73.62
			CO5	65.13	85.965	71.38
23.	U10EE309R	Electrical Engineering	CO1	66.45	78.289	70.00

			CO2	61.18	80.482	66.97
			CO3	61.18	78.070	66.25
			CO4	80.92	79.167	80.39
			CO5	80.26	77.412	79.41
24.	U10GE301AR	Transforms and Partial Differential Equations	CO1	55.92	77.851	62.50
			CO2	66.45	77.412	69.74
			CO3	54.61	80.482	62.37
			CO4	61.18	78.070	66.25
			CO5	58.55	79.167	64.74
25.	U10GE302R	Personality and Career Enhancement- I	CO1	71.71	87.281	76.38
			CO2	79.61	89.254	82.50
			CO3	76.32	89.912	80.39
			CO4	46.71	86.842	58.75
			CO5	65.13	85.965	71.38
26.	U10EC306R	Electronics Circuits - I Laboratory	CO1	100.00	88.816	96.64
			CO2	100.00	89.912	96.97
			CO3	99.34	89.693	96.45

27.	U10EC307R	Digital Electronics Laboratory	CO1	98.68	87.061	95.20
			CO2	100.00	85.526	95.66
			CO3	66.45	88.158	72.96
28.	U10EC308R	Computer Networks Laboratory	CO1	100.00	89.254	96.78
			CO2	100.00	86.842	96.05
			CO3	100.00	86.842	96.05
29.	U10GE401AR	Numerical methods for engineering computation	CO1	71.90	81.36	74.73
			CO2	72.55	78.73	74.40
			CO3	62.75	81.14	68.26
			CO4	51.63	80.04	60.16
			CO5	60.78	83.77	67.68
30.	U10EC402R	Electromagnetic fields	CO1	54.90	80.48	62.58
			CO2	63.40	82.24	69.05
			CO3	67.32	82.24	71.80
			CO4	67.32	83.33	72.12
			CO5	63.40	82.68	69.18
31.	U10GE403R	Electronic Circuits - II	CO1	76.47	83.33	78.53

			CO2	76.47	81.14	77.87
			CO3	69.28	83.33	73.50
			CO4	67.97	83.11	72.51
			CO5	73.20	83.99	76.44
32.	U10GE404R	Linear Integrated Circuits	CO1	64.71	82.68	70.10
			CO2	47.71	81.58	57.87
			CO3	71.24	82.46	74.61
			CO4	79.74	82.89	80.68
			CO5	79.74	82.46	80.55
33.	U10EE408R	Control System	CO1	42.48	79.61	53.62
			CO2	55.56	81.14	63.23
			CO3	62.09	82.02	68.07
			CO4	67.32	82.89	71.99
			CO5	77.78	82.02	79.05
34.	U10GE403R	Environmental Science and engineering	CO1	56.21	82.02	63.95
			CO2	67.97	82.89	72.45
			CO3	68.63	80.26	72.12

			CO4	58.82	80.04	65.19
			CO5	65.36	82.68	70.56
35.	U10EC405R	Linear Integrated Circuits Lab	CO1	100.00	84.43	95.33
			CO2	100.00	83.77	95.13
			CO3	100.00	82.46	94.74
36.	U10GE402R	Personality and career enhancement - II	CO1	53.59	82.68	62.32
			CO2	54.90	83.77	63.56
			CO3	47.06	80.48	57.09
			CO4	54.90	80.92	62.71
			CO5	51.63	83.11	61.08
37.	U10EC406R	Electronic circuit and Simulation Lab	CO1	100.00	100	100.00
			CO2	100.00	83.77	95.13
			CO3	100.00	83.99	95.20
38.	U10EC407R	PCB Lab	CO1	98.44	83.33	93.91
			CO2	100.00	83.33	95.00
			CO3	100.00	81.14	94.34
39.	U10EC502R	Analog Communication	CO1	85.96	89.47	88.42

		System	CO2	88.16	92.76	91.38
			CO3	86.40	92.76	90.86
			CO4	87.50	88.16	87.96
			CO5	87.72	88.16	88.03
40.	U10EC503R	Digital Signal Processing	CO1	86.84	76.97	79.93
			CO2	86.18	86.18	86.18
			CO3	87.94	93.42	91.78
			CO4	87.72	81.58	83.42
			CO5	89.91	81.58	84.08
41.	U10EC504R	Transmission Lines and Waveguides	CO1	91.01	75.66	80.26
			CO2	88.38	75.00	79.01
			CO3	85.09	75.00	78.03
			CO4	90.13	84.87	86.45
			CO5	87.94	84.87	85.79
42.	U10EC505R	Microprocessor and its applications	CO1	88.82	67.76	74.08
			CO2	89.91	69.74	75.79
			CO3	92.54	73.03	78.88

			CO4	89.69	78.95	82.17
			CO5	87.72	78.95	81.58
43.	U10EC506R	Measurements and Instrumentations	CO1	85.31	72.37	76.25
			CO2	88.60	76.97	80.46
			CO3	90.57	78.95	82.43
			CO4	91.23	92.76	92.30
			CO5	89.04	92.76	91.64
44.	U10GE501BR	Probability and Random Processes	CO1	87.50	63.82	70.92
			CO2	87.72	63.82	70.99
			CO3	85.09	62.50	69.28
			CO4	85.31	90.13	88.68
			CO5	86.62	90.13	89.08
45.	U10EC508R	Digital Signal Processing Lab	CO1	87.06	100.00	96.12
			CO2	91.01	100.00	97.30
			CO3	91.23	100.00	97.37
46.	U10EC507R	Microprocessor Lab	CO1	87.06	97.37	94.28
			CO2	90.57	100.00	97.17

			CO3	90.35	100.00	97.11
47.	U10EC507R	Measurements and Instrumentations Lab	CO1	86.18	100.00	95.86
			CO2	84.65	100.00	95.39
			CO3	89.91	100.00	96.97
48.	U10EC508R	PACE	CO1	87.28	64.47	71.32
			CO2	82.24	70.39	73.95
			CO3	85.09	73.03	76.64
49.	U10EC601R	Digital Image Processing	CO1	90.13	81.36	87.50
			CO2	86.18	78.73	83.95
			CO3	76.97	81.14	78.22
			CO4	86.18	80.04	84.34
			CO5	86.18	83.77	85.46
50.	U10EC602R	Digital Communication	CO1	71.05	80.48	73.88
			CO2	73.03	82.24	75.79
			CO3	73.68	82.24	76.25
			CO4	59.87	83.33	66.91
			CO5	59.87	82.68	66.71

51.	U10EC603R	Antenna and Wave Propagation	CO1	63.82	83.33	69.67
			CO2	65.79	81.14	70.39
			CO3	71.71	83.33	75.20
			CO4	50.00	83.11	59.93
			CO5	50.00	83.99	60.20
52.	U10EC604R	VLSI Design	CO1	72.37	82.68	75.46
			CO2	69.74	81.58	73.29
			CO3	67.11	82.46	71.71
			CO4	45.39	82.89	56.64
			CO5	45.39	82.46	56.51
53.	U10EC605R	Micro Controller and RISC Architecture	CO1	92.76	79.61	88.82
			CO2	88.16	81.14	86.05
			CO3	84.87	82.02	84.01
			CO4	61.84	82.89	68.16
			CO5	61.84	82.02	67.90
54.	U10EC606R	Telecommunication and Switching Networks	CO1	65.79	82.02	70.66
			CO2	72.37	82.89	75.52

			CO3	84.87	80.26	83.49
			CO4	51.97	80.04	60.39
			CO5	51.97	82.68	61.19
55.	U10GE602R	Personality and Career Enhancement-IV	CO1	87.50	82.89	86.12
			CO2	78.29	83.77	79.93
			CO3	69.08	81.14	72.70
			CO4	46.71	81.80	57.24
			CO5	46.71	83.33	57.70
56.	U10EC607R	Communication Laboratory	CO1	96.05	84.43	92.57
			CO2	100.00	83.77	95.13
			CO3	100.00	82.46	94.74
57.	U10EC608R	VLSI Laboratory	CO1	100.00	83.99	95.20
			CO2	99.34	83.77	94.67
			CO3	100.00	83.99	95.20
58.	U10EC609R	Digital Image Processing Laboratory	CO1	99.34	83.33	94.54
			CO2	100.00	83.33	95.00
			CO3	100.00	81.14	94.34

59.	U10GE701BR	Professional Ethics and Human Values	CO1	78.12	74.07	76.91
			CO2	75.19	77.78	75.97
			CO3	72.21	80.83	74.80
			CO4	74.50	76.69	75.16
			CO5	74.50	77.34	75.35
60.	U10EC701R	Wireless Networks	CO1	84.87	78.00	82.81
			CO2	80.26	75.82	78.93
			CO3	75.66	76.25	75.84
			CO4	64.47	75.82	67.88
			CO5	64.47	77.34	68.33
61.	U10EC702R	Optical Fiber Communication	CO1	84.21	78.21	82.41
			CO2	84.87	80.61	83.59
			CO3	84.21	74.51	81.30
			CO4	78.95	80.61	79.45
			CO5	78.95	81.05	79.58
62.	U10EC703R	Microwave Engineering	CO1	67.76	72.55	69.20
			CO2	74.34	71.68	73.54

			CO3	82.89	74.73	80.44
			CO4	82.89	76.03	80.84
			CO5	82.89	74.07	80.25
63.	U10EC912R	Computer Hardware and Interfacing	CO1	65.29	74.59	68.08
			CO2	75.21	73.77	74.78
			CO3	86.78	75.68	83.45
			CO4	42.15	77.32	52.70
			CO5	42.15	78.14	52.95
64.	U10EC921R	Embedded and Real Time Systems	CO1	81.40	75.86	79.74
			CO2	83.72	80.46	82.74
			CO3	89.53	78.93	86.35
			CO4	68.60	80.08	72.05
			CO5	68.60	83.14	72.97
65.	U10EC704R	Optical and Microwave Laboratory	CO1	100.00	90.41	97.12
			CO2	100.00	91.94	97.58
			CO3	96.71	92.81	95.54
66.	U10EC705R	Electronic System Design Laboratory	CO1	99.34	92.81	97.38

			CO2	100.00	93.46	98.04
			CO3	100.00	92.59	97.78
67.	U10EC706R	Project Work Phase - I	CO1	100.00	93.03	97.91
			CO2	100.00	93.25	97.97
			CO3	100.00	92.16	97.65
68.	U10EC801R	Cellular and Mobile Communication	CO1	76.95	85.96	79.65
			CO2	74.84	84.87	77.85
			CO3	72.64	83.77	75.98
			CO4	75.53	85.96	78.66
			CO5	75.53	87.72	79.19
69.	U10EC802R	Disaster Management	CO1	70.81	90.13	76.61
			CO2	74.68	87.06	78.40
			CO3	78.45	88.38	81.43
			CO4	73.14	90.57	78.37
			CO5	73.14	86.84	77.25
70.	U10EC922R	Satellite Communication	CO1	73.99	84.87	77.26
			CO2	75.74	82.68	77.82

			CO3	77.37	92.54	81.92
			CO4	79.63	93.64	83.84
			CO5	79.63	94.96	84.23
71.	U10EC925R	Medical Electronics and Instrumentation	CO1	70.12	91.01	76.39
			CO2	72.36	91.23	78.02
			CO3	74.48	89.25	78.91
			CO4	75.27	91.45	80.13
			CO5	75.27	92.11	80.32
72.	U10EC803R	Project Work Phase – II	CO1	93.20	92.54	93.00
			CO2	93.20	92.54	93.00
			CO3	93.20	95.61	93.92

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S.No	Sub Code	Course Name	Assessed COs	Direct assessment A	Indirect assessment B	Total
1.	U10GE101R	Technical English – I	CO1	71.64	83.08	75.07
			CO2	45.52	81.09	56.19
			CO3	69.40	83.58	73.66
			CO4	52.24	84.83	62.01
			CO5	80.60	85.57	82.09
2.	U10GE102R	Multivariable Calculus and Matrices	CO1	90.30	82.84	88.06
			CO2	77.61	83.83	79.48
			CO3	64.93	86.07	71.27
			CO4	65.67	84.58	71.34
			CO5	58.96	85.32	66.87
3.	U10GE103R	Engineering Physics	CO1	84.33	84.83	84.48
			CO2	81.34	87.06	83.06
			CO3	67.91	86.32	73.43
			CO4	53.73	84.58	62.99
			CO5	67.16	89.05	73.73
4.	U10GE104R	Engineering Chemistry	CO1	79.10	85.07	80.90
			CO2	90.30	83.08	88.13
			CO3	83.58	81.09	82.84
			CO4	88.06	82.84	86.49
			CO5	76.87	83.83	78.96
5.	U10GE105R	Engineering Graphics	CO1	82.84	86.07	83.81
			CO2	70.15	84.58	74.48
			CO3	75.37	85.32	78.36
			CO4	64.93	84.83	70.90
			CO5	96.27	85.07	92.91
6.	U10GE106R	Fundamentals Of Computing	CO1	79.85	83.08	80.82
			CO2	80.60	81.09	80.75
			CO3	76.87	82.84	78.66
			CO4	97.01	83.83	93.06
			CO5	97.01	89.05	94.63
7.	U10GE107R	Physic and Chemistry Lab-1	CO1	99.25	85.07	95.00
			CO2	99.25	83.08	94.40
			CO3	99.25	81.09	93.81
8.	U10GE108R	Computer Practice Lab	CO1	100.00	86.07	95.82
			CO2	100.00	89.55	96.87
			CO3	100.00	86.82	96.04
9.	U10GE109R	Engineering Practice Lab	CO1	100.00	88.06	96.42
			CO2	100.00	87.31	96.19
			CO3	100.00	86.07	95.82
10.	U10GE201R	Technical English - II	CO1	74.63	81.59	76.72
			CO2	58.96	81.84	65.82
			CO3	50.00	79.35	58.81

			CO4	51.49	82.84	60.90
			CO5	71.64	80.35	74.25
11.	U10GE202R	Vector calculus, differential equations and complex analysis	CO1	66.42	82.59	71.27
			CO2	71.64	81.84	74.70
			CO3	56.72	79.60	63.58
			CO4	78.36	78.86	78.51
			CO5	71.64	81.84	74.70
12.	U10GE203BR	Engineering Physics - II	CO1	70.15	80.10	73.13
			CO2	63.43	82.09	69.03
			CO3	52.24	82.84	61.42
			CO4	54.48	81.59	62.61
			CO5	49.25	81.09	58.80
13.	U10GE204BR	Engineering Chemistry - II	CO1	83.58	84.08	83.73
			CO2	91.04	83.83	88.88
			CO3	88.81	82.34	86.87
			CO4	76.12	79.10	77.01
			CO5	78.36	80.60	79.03
14.	U10GE205R	Programming in C	CO1	67.16	85.32	72.61
			CO2	70.90	82.09	74.25
			CO3	61.94	81.59	67.84
			CO4	67.91	79.35	71.34
			CO5	56.72	80.35	63.81
15.	U10GE207R	Basic Electrical and Electronics Engineering	CO1	55.22	83.08	63.58
			CO2	52.24	82.09	61.19
			CO3	50.75	81.09	59.85
			CO4	61.19	81.09	67.16
			CO5	70.14	81.09	73.43
16.	U10GE208R	Physics and Chemistry Laboratory	CO1	99.25	85.32	95.07
			CO2	88.06	84.58	87.01
			CO3	79.10	85.82	81.12
17.	U10GE209R	C Programming Laboratory	CO1	100.0	85.07	95.52
			CO2	97.76	83.33	93.43
			CO3	95.52	82.09	91.49
18.	U10GE211R	Basic Electrical and Electronics Engineering Laboratory	CO1	100.0	84.33	95.30
			CO2	100.0	82.34	94.70
			CO3	97.01	83.83	93.06
19.			CO4	79.10	85.82	81.12
20.			CO5	67.91	79.35	71.34
21.	U10EC302R	Electronics Circuits-1	CO1	62.42	77.64	66.99
			CO2	57.96	79.75	64.50
			CO3	45.86	78.69	55.71
			CO4	33.12	78.06	46.60
			CO5	49.04	79.54	58.19
22.	U10EC303R	Digital Electronics	CO1	77.71	81.86	78.95

			CO2	71.34	80.38	74.05
			CO3	89.17	80.80	86.66
			CO4	64.97	79.54	69.34
			CO5	64.97	81.43	69.91
23.	U10EC304R	Signals and Systems	CO1	59.24	79.11	65.20
			CO2	75.16	81.22	76.98
			CO3	64.33	80.59	69.21
			CO4	61.78	79.96	67.24
			CO5	68.15	78.06	71.12
24.	U10EC305R	Computer Networks	CO1	51.59	81.43	60.55
			CO2	50.32	81.43	59.65
			CO3	54.78	81.86	62.90
			CO4	53.50	80.80	61.69
			CO5	57.32	80.59	64.30
25.	U10EE309R	Electrical Engineering	CO1	80.25	78.27	79.66
			CO2	85.35	78.06	83.16
			CO3	85.99	77.64	83.48
			CO4	92.99	78.48	88.64
			CO5	90.45	79.75	87.24
26.	U10GE301AR	Transforms and Partial Differential Equations	CO1	73.25	76.79	74.31
			CO2	82.80	78.06	81.38
			CO3	84.71	78.90	82.97
			CO4	78.34	79.11	78.57
			CO5	78.98	79.96	79.27
27.	U10GE302R	Personality and Career Enhancement- I	CO1	96.18	83.33	92.32
			CO2	94.27	83.12	90.92
			CO3	94.27	81.01	90.29
			CO4	95.54	83.54	91.94
			CO5	97.45	82.07	92.84
28.	U10EC306R	Electronics Circuits - I Laboratory	CO1	98.73	84.60	94.49
			CO2	98.73	85.65	94.80
			CO3	99.36	85.86	95.31
29.	U10EC307R	Digital Electronics Laboratory	CO1	98.09	85.65	94.36
			CO2	100.00	87.13	96.14
			CO3	98.09	88.82	95.31
30.	U10EC308R	Computer Networks Laboratory	CO1	99.36	87.13	95.69
			CO2	99.36	89.03	96.26
			CO3	99.36	89.66	96.45
31.	U10GE401AR	Numerical methods for engineering computation	CO1	76.43	78.3	76.98
			CO2	81.53	75.7	79.79
			CO3	70.70	78.1	72.91
			CO4	75.16	77.0	75.71
			CO5	75.16	80.6	76.79
32.	U10EC402R	Electromagnetic fields	CO1	57.96	77.4	63.80
			CO2	79.62	79.1	79.47
			CO3	71.97	79.1	74.12
			CO4	84.08	80.2	82.90
			CO5	88.54	79.5	85.84
33.	U10GE403R	Electronic Circuits -	CO1	79.62	80.2	79.78

		II	CO2	81.53	78.1	80.49
			CO3	82.80	80.2	82.01
			CO4	82.17	80.0	81.50
			CO5	82.17	80.8	81.76
34.	U10GE404R	Linear Integrated Circuits	CO1	81.53	79.5	80.93
			CO2	82.80	78.5	81.51
			CO3	84.71	79.3	83.10
			CO4	89.17	79.7	86.34
			CO5	80.89	79.3	80.42
35.	U10EE408R	Control System	CO1	50.96	76.6	58.64
			CO2	56.05	78.1	62.65
			CO3	58.60	78.9	64.69
			CO4	45.22	79.7	55.58
			CO5	78.34	78.9	78.51
36.	U10GE403R	Environmental Science and engineering	CO1	85.35	78.9	83.42
			CO2	77.07	79.7	77.87
			CO3	82.17	77.2	80.68
			CO4	82.17	77.0	80.62
			CO5	77.07	79.5	77.81
37.	U10EC405R	Linear Integrated Circuits Lab	CO1	97.45	79.7	92.14
			CO2	100.00	80.6	94.18
			CO3	100.00	78.1	93.42
38.	U10GE402R	Personality and career enhancement - II	CO1	100.00	81.2	94.37
			CO2	77.71	80.6	78.57
			CO3	77.71	80.0	78.39
			CO4	81.53	85.0	82.57
			CO5	80.89	79.3	80.42
39.	U10EC406R	Electronic circuit and Simulation Lab	CO1	87.50	80.8	85.49
			CO2	86.05	80.6	84.41
			CO3	87.50	80.8	85.49
40.	U10EC407R	PCB Lab	CO1	96.20	80.2	91.39
			CO2	98.73	80.2	93.16
			CO3	98.73	78.1	92.53
41.	U10EC502R	Analog Communication System	CO1	71.97	83.01	75.29
			CO2	85.99	83.44	85.22
			CO3	82.17	82.17	82.17
			CO4	80.25	78.34	79.68
			CO5	78.34	80.25	78.92
42.	U10EC503R	Digital Signal Processing	CO1	75.16	73.25	74.59
			CO2	92.99	72.40	86.82
			CO3	82.17	70.91	78.79
			CO4	92.99	70.06	86.11
			CO5	93.63	70.06	86.56
43.	U10EC504R	Transmission Lines and Waveguides	CO1	71.34	74.73	72.36
			CO2	84.08	73.67	80.96
			CO3	77.71	72.40	76.11
			CO4	80.25	71.97	77.77
			CO5	75.80	70.06	74.08
44.	U10EC505R	Microprocessor	CO1	74.52	81.95	76.75

			CO2	84.71	79.62	83.18
			CO3	94.90	81.74	90.96
			CO4	89.81	83.23	87.83
			CO5	93.63	82.38	90.25
45.	U10EC506R	Measurements and Instrumentations	CO1	74.52	81.95	76.75
			CO2	84.71	80.47	83.44
			CO3	94.90	80.47	90.57
			CO4	89.81	82.80	87.71
			CO5	93.63	83.44	90.57
46.	U10GE501BR	Probability and Random Processes	CO1	54.78	66.67	58.34
			CO2	73.89	68.58	72.29
			CO3	76.43	68.58	74.08
			CO4	63.69	67.09	64.71
			CO5	57.96	67.52	60.83
47.	U10EC508R	Digital Signal Processing Lab	CO1	99.36	78.56	93.12
			CO2	100.0	80.68	94.20
			CO3	100.0	80.68	94.20
48.	U10EC507R	Microprocessor Lab	CO1	100.0	81.10	94.33
			CO2	100.0	81.10	94.33
			CO3	100.0	81.53	94.46
49.	U10EC507R	M & I Lab	CO1	100.0	87.47	96.24
			CO2	100.0	87.90	96.37
			CO3	100.0	87.69	96.31
50.	U10EC508R	PACE	CO1	90.00	82.80	87.84
			CO2	90.50	84.08	88.57
			CO3	90.60	83.23	88.39
51.	U10EC601R	Digital Image Processing	CO1	84.71	81.95	83.89
			CO2	76.43	79.41	77.32
			CO3	85.35	81.74	84.27
			CO4	93.63	80.68	89.75
			CO5	98.09	84.29	93.95
52.	U10EC602R	Digital Communication	CO1	53.50	80.25	61.53
			CO2	85.99	82.59	84.97
			CO3	88.54	82.38	86.69
			CO4	88.54	83.44	87.01
			CO5	85.99	82.17	84.84
53.	U10EC603R	Antenna and Wave Propagation	CO1	75.16	83.44	77.64
			CO2	62.42	79.41	67.52
			CO3	77.07	81.74	78.47
			CO4	73.89	80.68	75.92
			CO5	77.71	82.38	79.11
54.	U10EC604R	VLSI Design	CO1	64.97	82.38	70.19
			CO2	75.80	81.32	77.45
			CO3	81.53	82.17	81.72
			CO4	84.08	82.80	83.69
			CO5	94.27	81.95	90.57
55.	U10EC605R	Micro Controller and RISC Architecture	CO1	70.06	79.62	72.93
			CO2	67.52	83.44	72.29
			CO3	71.34	80.25	74.01

			CO4	82.17	81.74	82.04
			CO5	73.25	83.65	76.37
56.	U10EC606R	Telecommunication and Switching Networks	CO1	75.16	82.59	77.39
			CO2	79.62	83.44	80.76
			CO3	89.17	80.89	86.69
			CO4	76.43	80.68	77.71
			CO5	71.97	83.23	75.35
57.	U10GE602R	Personality and Career Enhancement-IV	CO1	97.45	83.44	93.25
			CO2	82.80	81.95	82.55
			CO3	90.45	83.23	88.28
			CO4	50.32	82.80	60.06
			CO5	59.24	83.86	66.62
58.	U10EC607R	Communication Laboratory	CO1	98.73	83.86	94.27
			CO2	100.0	81.10	94.33
			CO3	100.0	83.01	94.90
59.	U10EC608R	VLSI Laboratory	CO1	100.0	84.50	95.35
			CO2	100.0	84.29	95.29
			CO3	100.0	84.50	95.35
60.	U10EC609R	Digital Image Processing Laboratory	CO1	100.0	83.86	95.16
			CO2	100.0	83.86	95.16
			CO3	100.0	81.74	94.52
61.	U10GE701BR	Professional Ethics and Human Values	CO1	87.90	82.59	86.31
			CO2	71.34	81.53	74.39
			CO3	44.59	84.29	56.50
			CO4	68.15	84.93	73.18
			CO5	68.15	85.14	73.25
62.	U10EC701R	Wireless Networks	CO1	87.90	84.29	86.82
			CO2	91.72	84.93	89.68
			CO3	90.45	84.29	88.60
			CO4	89.17	84.50	87.77
			CO5	89.17	85.56	88.09
63.	U10EC702R	Optical Fiber Communication	CO1	74.52	84.93	77.64
			CO2	83.44	87.05	84.52
			CO3	87.90	83.23	86.50
			CO4	87.90	85.14	87.07
			CO5	87.90	84.93	87.01
64.	U10EC703R	Microwave Engineering	CO1	69.43	83.65	73.69
			CO2	76.43	84.08	78.73
			CO3	85.35	84.50	85.10
			CO4	85.99	85.14	85.73
			CO5	85.99	86.84	86.24
65.	U10EC912R	Computer Hardware and Interfacing	CO1	59.87	85.56	67.58
			CO2	63.06	84.08	69.36
			CO3	66.24	85.14	71.91
			CO4	82.17	81.32	81.91
			CO5	82.17	82.38	82.23
66.	U10EC921R	Embedded and Real Time Systems	CO1	67.52	83.44	72.29
			CO2	68.79	85.14	73.69
			CO3	73.25	81.10	75.61

			CO4	91.72	81.74	88.73
			CO5	91.72	82.59	88.98
67.	U10EC704R	Optical and Microwave Laboratory	CO1	100.0	87.05	96.11
			CO2	100.0	88.32	96.50
			CO3	100.0	89.60	96.88
68.	U10EC705R	Electronic System Design Laboratory	CO1	100.0	89.17	96.75
			CO2	99.36	90.45	96.69
			CO3	100.0	89.17	96.75
69.	U10EC706R	Project Work Phase - I	CO1	100.0	91.93	97.58
			CO2	100.0	89.60	96.88
			CO3	100.0	94.48	98.34
70.	U10EC801R	Cellular and Mobile Communication	CO1	78.98	86.20	81.15
			CO2	72.61	85.56	76.50
			CO3	72.61	87.26	77.01
			CO4	92.36	87.05	90.76
			CO5	92.36	89.17	91.40
71.	U10EC802R	Disaster Management	CO1	22.93	90.23	43.12
			CO2	21.66	87.69	41.46
			CO3	26.75	84.50	44.08
			CO4	3.82	89.38	29.49
			CO5	3.82	87.26	28.85
72.	U10EC922R	Satellite Communication	CO1	82.80	88.11	84.39
			CO2	85.35	89.17	86.50
			CO3	88.54	91.72	89.49
			CO4	75.16	88.96	79.30
			CO5	75.16	87.05	78.73
73.	U10EC925R	Medical Electronics and Instrumentation	CO1	80.89	85.35	82.23
			CO2	88.54	87.47	88.22
			CO3	89.17	85.77	88.15
			CO4	82.80	86.84	84.01
			CO5	82.80	87.05	84.08
74.	U10EC803R	Project Work Phase – II	CO1	100.00	86.41	95.92
			CO2	100.00	90.23	97.07
			CO3	100.00	90.45	97.13

ANNEXURE 3.3.2

PO attainment

PO attainment Direct Assessment

2012-16 Batch

COURSE CODE	COURSE TITLE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
U10GE101R	Technical English - I	0.00	0.00	0.00	0.00	67.82	67.82	67.82	67.82	67.82	67.82	67.82	67.82	67.82	67.82
U10GE102R	Multivariable Calculus And Matrices	88.75	88.75	88.75	88.75	88.75	88.75	0.00	0.00	0.00	0.00	88.75	88.75	88.75	88.75
U10GE103R	Engineering Physics - I	70.41	70.41	70.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	70.41	70.41	70.41
U10GE104R	Engineering Chemistry - I	85.38	85.38	85.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.38	85.38	85.38
U10GE105R	Engineering Graphics	88.12	0.00	88.12	0.00	88.12	88.12	0.00	0.00	0.00	0.00	88.12	88.12	88.12	88.12
U10GE106R	Fundamentals of Computing	84.29	0.00	84.29	84.29	84.29	84.29	0.00	0.00	84.29	0.00	84.29	84.29	84.29	84.29
U10GE107R	Physics & Chemistry Laboratory - I	96.35	0.00	0.00	0.00	0.00	0.00	96.35	0.00	96.35	0.00	0.00	96.35	96.35	96.35
U10GE108R	Computer Practice Laboratory	96.82	96.82	96.82	96.82	96.82	96.82	0.00	0.00	96.82	0.00	0.00	96.82	96.82	96.82
U10GE109R	Engineering Practices Laboratory	97.53	97.53	97.53	97.53	0.00	0.00	0.00	0.00	97.53	0.00	97.53	97.53	97.53	97.53
U10GE201R	Technical English - II	0.00	0.00	0.00	0.00	80.38	80.38	80.38	80.38	80.38	80.38	80.38	80.38	80.38	80.38
U10GE202R	Vector Calculus, Differential	80.05	80.05	80.05	80.05	80.05	80.05	0.00	0.00	0.00	0.00	80.05	80.05	80.05	80.05

	Equations and complex analysis														
U10GE203BR	Engineering Physics - II	71.52	71.52	71.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.52	71.52	71.52
U10GE204BR	Engineering Chemistry - II	81.61	81.61	81.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81.61	81.61	81.61
U10GE205R	Programming in C	74.00	74.00	74.00	74.00	74.00	74.00	0.00	0.00	0.00	0.00	0.00	74.00	74.00	74.00
U10GE207R	Basic Electrical and Electronics Engineering	77.63	77.63	77.63	77.63	0.00	0.00	0.00	0.00	77.63	0.00	77.63	77.63	77.63	77.63
U10GE208R	Physics & Chemistry Laboratory – II	90.10	90.10	90.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.10	90.10	90.10
U10GE209R	C Programming Laboratory	93.46	93.46	93.46	93.46	93.46	93.46	0.00	0.00	93.46	0.00	0.00	93.46	93.46	93.46
U10GE211R	Basic Electrical and Electronics Engineering Laboratory	95.99	95.99	95.99	95.99	0.00	0.00	0.00	0.00	95.99	0.00	95.99	95.99	95.99	95.99
U10GE301AR	Transforms and Partial Differential Equations	65.12	65.12	66.40	65.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.12	65.12	65.12
U10EC302R	Electronic Circuits – I	73.45	73.45	73.45	73.45	73.45	73.45	0.00	0.00	73.45	73.45	73.45	73.45	73.45	73.45
U10EC303R	Digital Electronics	73.78	73.78	73.78	73.78	74.05	73.78	0.00	0.00	0.00	72.30	73.78	73.78	73.78	73.78
U10EC304R	Signals and Systems	71.50	71.50	71.50	71.50	71.50	0.00	0.00	0.00	0.00	0.00	71.50	71.50	71.50	71.50
U10EC305R	Computer Networks	69.29	69.29	69.29	69.29	69.29	69.29	0.00	0.00	0.00	0.00	69.29	69.29	69.29	69.29
U10GE302R	Personality And Career Enhancement- I	0.00	0.00	0.00	79.76	0.00	79.21	0.00	0.00	79.42	2.67	3.00	79.76	79.76	79.76
U10EE309R	Electrical Engineering	72.61	72.37	72.61	72.61	72.61	72.61	72.61	72.61	0.00	72.61	72.61	72.61	72.61	72.61
U10EC306R	Electronic Circuits	96.69	96.69	96.69	96.69	96.69	0.00	0.00	0.00	96.69	0.00	96.69	96.69	96.69	96.69

	- I Laboratory														
U10EC307R	Digital Electronics Laboratory	87.94	87.94	87.94	87.94	87.94	0.00	0.00	0.00	87.94	0.00	87.94	87.94	87.94	87.94
U10EC308R	Computer Networks Laboratory	96.29	96.29	96.29	96.29	96.29	0.00	96.29	0.00	96.29	0.00	0.00	96.29	96.29	96.29
U10GE401AR	Numerical Methods for Engineering Computation	69.05	69.05	69.05	69.05	69.05	69.05	0.00	0.00	0.00	0.00	69.05	69.05	69.05	69.05
U10EC402R	Electromagnetic Field	68.95	68.95	68.95	68.95	68.95	68.95	0.00	0.00	0.00	0.00	68.95	68.95	68.95	68.95
U10EC403R	Electronic Circuits – II	75.77	75.77	75.67	75.77	75.77	75.77	0.00	0.00	0.00	0.00	75.77	75.77	75.77	75.77
U10EC404R	Linear Integrated Circuits	72.76	72.76	72.37	72.76	72.76	72.76	0.00	0.00	0.00	0.00	72.76	72.76	72.76	72.76
U10EE408R	Control Systems	67.19	67.19	68.25	67.19	67.19	67.19	0.00	0.00	0.00	0.00	67.19	67.19	67.19	67.19
U10GE403R	Environmental Science and Engineering	0.00	0.00	68.85	68.85	70.56	68.85	68.85	68.85	68.85	0.00	68.85	68.85	68.85	68.85
U10GE402R	Personality And Career Enhancement- II	0.00	0.00	61.35	0.00	0.00	0.00	0.00	61.35	61.35	61.35	61.35	0.00	61.35	61.35
U10EC405R	Linear Integrated & Circuits Laboratory	95.07	95.07	95.07	95.07	0.00	0.00	0.00	0.00	95.07	95.07	95.07	95.07	95.07	95.07
U10EC406R	Electronic Circuits and Simulation Laboratory	96.78	96.78	96.78	96.78	96.78	0.00	0.00	0.00	96.78	96.78	96.78	96.78	96.78	96.78
U10EC407R	PCB Laboratory	94.42	94.42	94.42	94.42	94.42	0.00	0.00	0.00	94.42	94.42	94.42	94.42	94.42	94.42
U10GE501BR	Probability and Random Process	77.79	77.79	0.00	77.79	0.00	77.79	0.00	0.00	0.00	0.00	77.79	77.79	77.79	77.79
U10EC502R	Analog Communication System	89.33	89.33	89.33	89.39	89.33	89.33	0.00	0.00	0.00	0.00	89.33	89.33	89.33	89.33

U10EC503R	Digital Signal Processing	85.08	85.23	85.73	85.23	85.45	85.08	0.00	0.00	0.00	0.00	85.08	85.08	85.08	85.08
U10EC504R	Transmission Lines and Waveguides	81.91	81.91	81.86	81.91	82.16	81.91	0.00	0.00	0.00	0.00	82.32	81.91	81.91	81.91
U10EC505R	Microprocessor and its Applications	78.50	78.50	78.50	78.50	78.50	78.50	78.50	0.00	0.00	0.00	78.50	78.50	78.50	78.50
U10GE502R	Personality And Career Enhancement- III	0.00	0.00	76.34	0.00	0.00	0.00	0.00	76.34	76.34	76.34	76.34	0.00	76.34	76.34
U10EC506R	Measurements and Instrumentations	84.62	84.62	84.12	84.62	84.62	84.62	84.62	0.00	0.00	0.00	84.62	84.62	84.62	84.62
U10EC507R	Microprocessor Laboratory	96.18	96.18	96.18	96.18	96.18	96.18	0.00	0.00	0.00	96.18	96.18	96.18	96.18	96.18
U10EC508R	Digital Signal Processing Laboratory	96.93	96.93	96.93	96.93	96.93	96.93	0.00	0.00	0.00	96.93	96.93	96.93	96.93	96.93
U10EC509R	Measurements and Instrumentations Laboratory	96.07	96.07	96.07	96.07	96.18	96.07	0.00	0.00	0.00	96.07	96.07	96.07	96.07	96.07
U10EC601R	Digital Image processing	83.89	83.89	83.89	83.89	83.89	0.00	0.00	0.00	0.00	83.88	83.89	83.89	83.89	83.89
U10EC602R	Digital Communication	71.91	71.91	71.46	71.18	71.91	0.00	0.00	0.00	0.00	71.91	71.91	71.91	71.91	71.91
U10EC603R	Antenna and Wave Propagation	67.08	68.24	68.80	68.80	67.08	67.08	0.00	0.00	0.00	67.08	67.08	67.08	67.08	67.08
U10EC604R	VLSI Design	66.72	66.72	66.72	66.72	66.72	66.72	0.00	0.00	0.00	66.72	66.72	66.72	66.72	66.72
U10EC605R	Microcontroller and RISC Architecture	78.99	76.53	78.99	76.53	78.99	78.99	0.00	0.00	0.00	78.99	78.99	78.99	78.99	78.99
U10EC606R	Telecommunication and Switching	70.25	68.36	70.25	68.36	70.25	70.25	0.00	0.00	0.00	70.25	70.25	70.25	70.25	70.25

	Networks														
U10GE602R	Personality And Career Enhancement- IV	0.00	0.00	70.74	0.00	0.00	0.00	0.00	70.74	70.74	70.74	70.74	0.00	0.00	70.74
U10EC607R	Communication Laboratory (Analog, Digital and RF)	94.14	94.14	94.14	94.14	94.14	0.00	0.00	0.00	94.14	0.00	94.14	94.14	94.14	94.14
U10EC608R	VLSI Laboratory	95.02	95.02	95.02	95.02	95.02	0.00	0.00	0.00	95.02	0.00	95.02	95.02	95.02	95.02
U10EC609R	Digital Image Processing Laboratory	94.63	94.63	94.63	94.63	94.63	0.00	0.00	0.00	94.63	0.00	94.63	94.63	94.63	94.63
U10GE701BR	Professional Ethics and Human Values	75.44	0.00	0.00	0.00	0.00	75.64	75.64	75.64	75.64	75.64	75.64	75.64	75.64	75.64
U10EC701R	Wireless Networks	74.76	0.00	74.76	0.00	74.76	74.76	0.00	0.00	0.00	0.00	74.76	74.76	74.76	74.76
U10EC702R	Optical Fiber Communication	81.27	80.98	81.15	81.27	80.82	80.98	80.98	0.00	0.00	0.00	81.27	81.27	81.27	81.27
U10EC703R	Microwave Engineering	76.85	76.85	76.85	76.85	76.85	0.00	76.85	0.00	0.00	0.00	76.85	76.85	76.85	76.85
U10EC921R	Elective – I	78.77	78.77	78.77	78.77	78.77	78.77	0.00	0.00	0.00	0.00	78.77	78.77	78.77	78.77
U10EC912R	Elective – II	66.39	66.39	66.39	66.39	66.39	66.39	0.00	0.00	0.00	0.00	66.39	66.39	66.39	3.00
U10EC911R	Internet and Java	0.00	0.00	0.00	0.00	0.00	70.23	70.23	0.00	70.23	70.23	70.23	70.23	70.23	70.23
U10EC704R	Optical and Microwave Laboratory	96.75	96.75	96.75	96.75	95.54	0.00	0.00	0.00	0.00	96.75	96.75	96.75	96.75	96.75
U10EC705R	Electronic System Design Laboratory	97.73	97.73	97.73	97.73	97.73	97.73	0.00	0.00	0.00	0.00	97.73	97.73	97.73	97.73
U10EC706R	Project Work Phase - I	97.84	97.84	97.84	97.84	97.84	97.84	97.84	97.84	97.84	97.84	97.84	97.84	97.84	97.84
U10EC801R	Cellular and Mobile	78.27	76.92	78.17	77.92	78.27	78.27	0.00	0.00	0.00	78.42	78.27	78.27	78.27	78.27

	Communication														
U10EC802R	Disaster Management	78.41	78.41	0.00	0.00	78.41	78.41	78.41	78.41	78.41	78.41	78.41	78.41	78.41	78.41
U10EC922R	Elective – III	81.01	81.01	79.87	79.22	82.00	81.01	0.00	0.00	0.00	81.01	81.01	81.01	81.01	81.01
U10EC925R	Elective IV	78.75	0.00	0.00	0.00	78.75	78.75	0.00	0.00	0.00	78.75	78.75	78.75	78.75	78.75
U10EC803R	Project Work Phase - II	93.31	93.31	93.31	93.31	93.31	93.31	93.31	93.31	93.31	93.31	93.31	93.31	93.31	93.31
	Direct Assessment	82.52	83.82	83.57	83.91	81.51	77.17	67.36	70.20	82.39	74.03	78.29	80.31	81.56	80.08186

2012-16	**PO** 1	**PO** 2	**PO** 3	**PO** 4	**PO** 5	**PO** 6	**PO** 7	**PO** 8	**PO** 9	**PO** 10	**PO** 11	**PO** 12	**PSO** 1	**PSO** 2
Direct	82.52	83.82	83.58	83.92	81.51	77.17	67.37	70.21	82.40	74.03	78.29	80.31	81.56	80.08
70% of Direct	57.76	58.67	58.51	58.74	57.06	54.02	47.16	49.15	57.68	51.82	54.80	56.22	57.09	56.06
20% of Exit survey	16.32	16.47	16.35	15.80	16.17	15.68	16.25	16.27	16.64	16.67	16.64	16.37	16.30	16.60
10% of recruiter survey	8.67	8.78	9.26	9.25	9.01	9.13	8.54	8.68	8.89	8.58	9.19	9.26	9.20	9.05
PO Attainment	**82.75**	**83.93**	**84.12**	**83.80**	**82.24**	**78.83**	**71.94**	**74.10**	**83.21**	**77.07**	**80.63**	**81.84**	**82.59**	**81.71**

2011-15 Batch

Sub Code	Subject Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
U10GE101R	Technical English - I	0.00	0.00	0.00	0.00	69.80	69.80	69.80	69.80	69.80	69.80	69.80	69.80	69.80	69.80
U10GE102R	Multivariable Calculus and Matrices	75.40	75.40	75.40	75.40	75.40	75.40	0.00	0.00	0.00	0.00	75.40	75.40	75.40	75.40
U10GE103R	Engineering Physics - I	75.54	75.54	75.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.54	75.54	75.54
U10GE104R	Engineering Chemistry - I	83.46	83.46	83.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	83.46	83.46	83.46
U10GE105R	Engineering Graphics	80.09	0.00	80.09	0.00	80.09	80.09	0.00	0.00	0.00	0.00	80.09	80.09	80.09	80.09
U10GE106R	Fundamentals of Computing	85.58	0.00	85.58	85.58	85.58	85.58	0.00	0.00	85.58	0.00	85.58	85.58	85.58	85.58
U10GE107R	Physics & Chemistry Laboratory - I	94.40	0.00	0.00	0.00	0.00	0.00	94.40	0.00	94.40	0.00	0.00	94.40	94.40	94.40
U10GE108R	Computer Practice Laboratory	96.24	96.24	96.24	96.24	96.24	96.24	0.00	0.00	96.24	0.00	0.00	96.24	96.24	96.24
U10GE109R	Engineering Practices Laboratory	96.14	96.14	96.14	96.14	0.00	0.00	0.00	0.00	96.14	0.00	96.14	96.14	96.14	96.14
U10GE201R	Technical English - II	0.00	0.00	0.00	0.00	67.30	67.30	67.30	67.30	67.30	67.30	67.30	67.30	67.30	67.30
U10GE202R	Vector Calculus, Differential Equations and complex Analysis	72.55	72.55	72.55	72.55	72.55	72.55	0.00	0.00	0.00	0.00	72.55	72.55	72.55	72.55
U10GE203BR	Engineering Physics - II	65.00	65.00	65.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.00	65.00	65.00
U10GE204BR	Engineering Chemistry - II	83.10	83.10	83.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	83.10	83.10	83.10

U10GE205R	Programming in C	69.97	69.97	69.97	69.97	69.97	69.97	0.00	0.00	69.97	0.00	0.00	69.97	69.97	69.97
U10GE207R	Basic Electrical and Electronics Engineering	65.04	65.04	65.04	65.04	0.00	0.00	0.00	0.00	65.04	0.00	65.04	65.04	65.04	65.04
U10GE208R	Physics & Chemistry Laboratory – II	87.73	87.73	87.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	87.73	87.73	87.73
U10GE209R	C Programming Laboratory	93.48	93.48	93.48	93.48	93.48	93.48	0.00	0.00	93.48	0.00	0.00	93.48	93.48	93.48
U10GE211R	Basic Electrical and Electronics Engineering Laboratory	94.35	94.35	94.35	94.35	0.00	0.00	0.00	0.00	94.35	0.00	94.35	94.35	94.35	94.35
U10GE301AR	Transforms and Partial Differential Equations	79.30	79.30	79.60	79.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	79.30	79.30	79.30
U10EC302R	Electronic Circuits – I	58.40	58.40	58.40	58.40	58.40	58.40	0.00	0.00	58.40	58.40	58.40	58.40	58.40	58.40
U10EE309R	Electrical Engineering	84.44	84.00	84.44	84.44	84.44	84.44	84.44	84.44	0.00	84.44	84.44	84.44	84.44	84.44
U10EC303R	Digital Electronics	75.78	75.78	75.78	75.78	74.80	75.78	0.00	0.00	0.00	76.50	75.78	75.78	75.78	75.78
U10EC304R	Signals and Systems	69.76	69.76	69.77	69.76	69.10	0.00	0.00	0.00	0.00	0.00	67.93	69.76	69.76	69.76
U10EC305R	Computer Networks	61.82	61.82	61.82	61.82	61.82	61.82	0.00	0.00	0.00	0.00	61.82	61.82	61.82	61.82
U10GE302R	Personality and Career Enhancement - I	0.00	0.00	0.00	91.66	0.00	91.74	0.00	0.00	91.72	91.66	91.66	91.66	91.66	91.66
U10EC306R	Electronic Circuits - I Laboratory	94.87	94.87	94.87	94.87	94.87	0.00	0.00	0.00	94.87	0.00	94.87	94.87	94.87	94.87
U10EC307R	Digital Electronics Laboratory	95.27	95.27	95.27	95.27	95.27	0.00	0.00	0.00	95.27	0.00	95.27	95.27	95.27	95.27
U10EC308R	Computer Networks Laboratory	96.13	96.13	96.13	96.13	96.13	0.00	96.13	0.00	96.13	0.00	0.00	96.13	96.13	96.13

U10GE401AR	Numerical Methods	76.44	76.44	76.44	76.44	76.44	76.44	0.00	0.00	0.00	0.00	76.44	76.44	76.44	76.44
U10EC402R	Electromagnetic Field	77.23	77.23	77.23	77.23	77.23	77.23	0.00	0.00	0.00	0.00	77.23	77.23	77.23	77.23
U10EC403R	Electronic Circuits – II	81.11	81.11	81.09	81.11	81.11	81.11	0.00	0.00	0.00	0.00	81.11	81.11	81.11	81.11
U10EC404R	Linear Integrated Circuits	82.46	82.46	82.73	82.46	82.46	82.46	0.00	0.00	0.00	0.00	82.46	82.46	82.46	82.46
U10EE408R	Control System	64.01	64.01	65.28	64.01	64.01	64.01	0.00	0.00	0.00	0.00	64.01	64.01	64.01	64.01
U10GE403R	Environmental Science and Engineering	0.00	0.00	80.08	80.08	77.81	80.08	80.08	80.08	80.08	0.00	80.08	80.08	80.08	80.08
U10GE402R	Personality and Career Enhancement - II	0.00	0.00	82.86	0.00	0.00	0.00	0.00	82.86	82.86	82.86	82.86	0.00	82.86	82.86
U10EC405R	Linear Integrated & Circuits Laboratory	93.25	93.25	93.25	93.25	0.00	0.00	0.00	0.00	93.25	93.25	93.25	93.25	93.25	93.25
U10EC406R	Electronic Circuits and Simulation Laboratory	85.13	85.13	85.13	85.13	85.49	0.00	0.00	0.00	85.13	85.13	85.13	85.13	85.13	85.13
U10EC407R	PCB Laboratory	92.36	92.36	92.36	92.36	92.36	0.00	0.00	0.00	92.36	92.36	92.36	92.36	92.36	92.36
U10GE501BR	Probability and Random Process	66.05	66.05	0.00	66.05	0.00	66.05	0.00	0.00	0.00	0.00	66.05	66.05	66.05	66.05
U10EC502R	Analog Communication System	80.26	80.26	80.26	80.61	80.26	80.26	0.00	0.00	0.00	0.00	80.26	80.26	80.26	80.26
U10EC503R	Digital Signal Processing	82.57	81.96	82.61	81.96	83.14	82.57	0.00	0.00	0.00	0.00	82.57	82.57	82.57	82.57
U10EC504R	Transmission Lines and Waveguides	76.26	76.26	77.09	76.26	76.86	76.26	0.00	0.00	0.00	0.00	77.23	76.26	76.26	76.26
U10EC505R	Microprocessor and its Applications	85.79	85.79	85.79	85.79	85.79	85.79	85.79	0.00	0.00	0.00	85.79	85.79	85.79	85.79
U10EC506R	Measurements and	85.81	85.81	85.47	85.81	85.81	85.81	85.81	0.00	0.00	0.00	85.81	85.81	85.81	85.8

	Instrumentations														1
U10GE502R	Personality and Career Enhancement - III	0.00	0.00	84.92	0.00	0.00	0.00	0.00	84.92	84.92	84.92	84.92	0.00	84.92	84.92
U10EC507R	Microprocessor Laboratory	94.37	94.37	94.37	94.37	94.37	94.37	0.00	0.00	0.00	94.37	94.37	94.37	94.37	94.37
U10EC508R	Digital Signal Processing Laboratory	93.84	93.84	93.84	93.84	93.84	93.84	0.00	0.00	0.00	93.84	93.84	93.84	93.84	93.84
U10EC509R	Measurements and Instrumentations Lab	96.31	96.31	96.31	96.31	96.34	96.31	0.00	0.00	0.00	96.31	96.31	96.31	96.31	96.31
U10EC601R	Digital Image processing	85.84	85.84	85.84	85.84	85.84	0.00	0.00	0.00	0.00	87.97	85.84	85.84	85.84	85.84
U10EC602R	Digital Communication	81.01	81.01	82.20	82.95	81.01	0.00	0.00	0.00	0.00	81.01	81.01	81.01	81.01	81.01
U10EC603R	Antenna and Wave Propagation	75.73	74.85	74.89	74.89	75.73	75.73	0.00	0.00	0.00	75.73	75.73	75.73	75.73	75.73
U10EC604R	VLSI Design	80.72	80.72	80.72	80.72	80.72	80.72	0.00	0.00	0.00	80.72	80.72	80.72	80.72	80.72
U10EC605R	Micro controller and RISC Architecture	75.53	76.18	75.53	76.18	75.53	75.53	0.00	0.00	0.00	75.53	75.53	75.53	75.53	75.53
U10EC606R	Telecommunication and Switching Networks	79.58	79.92	79.58	79.92	79.58	79.58	0.00	0.00	0.00	79.58	79.58	79.58	79.58	79.58
U10GE602R	Personality and Career Enhancement - IV	0.00	0.00	78.15	0.00	0.00	0.00	0.00	78.15	78.15	78.15	78.15	0.00	78.15	78.15
U10EC607R	Communication Laboratory (Analog, Digital and RF)	94.50	94.50	94.50	94.50	94.50	0.00	0.00	0.00	94.50	0.00	94.50	94.50	94.50	94.50
U10EC608R	VLSI Laboratory	95.33	95.33	95.33	95.33	95.33	0.00	0.00	0.00	95.33	0.00	95.33	95.33	95.33	95.33
U10EC609R	Digital Image Processing Laboratory	94.95	94.95	94.95	94.95	94.95	0.00	0.00	0.00	94.95	0.00	94.95	94.95	94.95	94.95
U10GE701BR	Professional Ethics and	73.93	0.00	0.00	0.00	0.00	75.58	75.58	75.58	75.58	75.58	75.58	75.58	75.58	75.5

2011-15		PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PSO	PSO	
	Human Values															8
U10EC701R	Wireless Networks	90.33	0.00	90.33	0.00	90.33	90.33	0.00	0.00	0.00	0.00	90.33	90.33	90.33		90.33
U10EC702R	Optical Fiber Communication	84.81	86.61	85.70	84.81	86.80	86.61	86.61	0.00	0.00	0.00	84.81	84.81	84.81		84.81
U10EC703R	Microwave Engineering	83.50	83.50	83.50	83.50	83.50	0.00	83.50	0.00	0.00	0.00	83.50	83.50	83.50		83.50
U10EC912R	Computer Hardware and Interfacing –E-I	77.09	77.09	77.09	77.09	77.09	77.09	0.00	0.00	0.00	0.00	77.09	77.09	77.09		77.09
U10EC921R	Embedded and Real Time System – E- II	80.93	80.93	80.93	80.93	80.93	80.93	0.00	0.00	0.00	0.00	80.93	80.93	80.93		80.93
U10EC704R	Optical and Microwave Laboratory	96.50	96.50	96.50	96.50	96.88	0.00	0.00	0.00	0.00	96.50	96.50	96.50	96.50		96.50
U10EC705R	Electronic System Design Laboratory	96.73	96.73	96.73	96.73	96.73	96.73	0.00	0.00	0.00	0.00	96.73	96.73	96.73		96.73
U10EC706R	Project Work Phase - I	97.60	97.60	97.60	97.60	97.60	97.60	97.60	97.60	97.60	97.60	97.60	97.60	97.60		97.60
U10EC801R	Cellular and Mobile Communication	83.90	76.76	85.00	84.59	83.90	83.90	0.00	0.00	0.00	85.37	83.90	83.90	83.90		83.90
U10EC802R	Disaster Management	38.11	38.11	0.00	0.00	38.11	38.11	38.11	38.11	38.11	38.11	38.11	38.11	38.11		38.11
U10EC922R	Satellite Communication - E-III	85.29	85.29	88.00	87.09	85.44	85.29	0.00	0.00	0.00	85.29	85.29	85.29	85.29		85.29
U10EC803R	Project Work Phase - II	96.71	96.71	96.71	96.71	96.71	96.71	96.71	96.71	96.71	96.71	96.71	96.71	96.71		96.71
U10EC925R	Medical Electronics & Instrumentation E-IV	88.01	0.00	0.00	0.00	88.01	88.01	0.00	0.00	0.00	88.01	88.01	88.01	88.01		88.01
Direct Assessment		80.14	77.26	81.34	80.67	80.17	77.15	53.44	50.53	73.74	72.41	81.94	80.79	83.23		83.33

	1	2	3	4	5	6	7	8	9	10	11	12	1	2
Direct	80.14	77.26	81.34	80.67	80.17	77.15	53.44	50.53	73.74	72.41	81.94	80.79	83.23	83.33
70% of Direct	56.09	54.08	56.94	56.47	56.12	54.01	37.41	35.37	51.61	50.68	57.36	56.55	58.26	58.33
20% of exit survey	17.40	17.20	17.20	16.60	16.80	17.80	16.80	16.40	17.40	16.40	17.20	17.80	17.60	17.40
10% of recruiters survey	7.50	8.45	8.75	8.45	8.70	7.85	8.40	8.95	7.80	7.75	8.30	7.85	8.50	8.25
PO Attainment	**80.99**	**79.73**	**82.89**	**81.52**	**81.62**	**79.66**	**62.61**	**60.72**	**76.81**	**74.83**	**82.86**	**82.20**	**84.36**	**83.98**

ANNEXURE-5.8

Publication Details

SCOPUS INDEXED JOURNALS

June 2016 -May 2017

S.No	Author	Title	Volume No.	Issue No.	Year	Page.No.	Publisher	Impact factor
1	**Dr.R.S. Sabeenian**	WBM- White Black Mass Estimation Technique Based Iris Recognition for Improved Biometric Authentication	24	10	August 2016	100-120	Transylvanian Review	Thomson Reuters
2	**Dr.R.S. Sabeenian**	Multi Attribute Feature Approximation Based Snapshot Generation and Video Compression Using Fractional Wavelet Transform	24	10	August 2016	170-182	Transylvanian Review	Thomson Reuters
3	**Dr.R.S. Sabeenian**	Neighbour Block Difference Vector (NBDV) Based Motion Estimation and Self Occlusion Detection in Video Compression	24	10	August 2016	73-95	Transylvanian Review	Thomson Reuters
4	**Kashwan K. R**	An Extended Bilateral Filter for Speckle Noise Reduction in Ultrasound Kidney	7	3	Sep 2016	13-25	Journal of Next Generation Information Technology	Scopus 0.5

5	**T.Premakumari** M.Chandrasekaran	R3-SVD: An efficient R3 optimization technique for improved video streaming using singular value decomposition and PSO approach in peer to	24	7	Dec 2016	2226-2234	Middle –East Journal of scientific Research	Scopus IF 0.36
6	**T.Premakumari** M.Chandrasekaran	Bandwidth distribution algorithm based DDR scheduler with route selection for real time video streaming in peer to peer networks	15	6	Dec 2016	1139-1145	Asian Journal of Information Technology	Scopus IF 0.35

June 2015 -May 2016

S.No	Author	Title	Volume No.	Issue No.	Year	Page. No.	Publisher	Impact factor
1.	**Ravi G** Kashwan K. R.	Performance Analysis 0f Energy Aware Zone Routing Protocol Using Span	37	1	Aug 2015	1-6	International Journal of Computers and Applications	Scopus SNIP: 0.455
2.	Dattathreya K. A **Kashwan K. R**	FPGA Implementation of Reconfigurable Secure Image Encoding Using Serial 2D-DWT Processor and AES Algorithm	9	1	2015	72-83	International Journal of Digital Content Technology and its Applications	Scopus SNIP: 0.989
3.	K.Vidyavathi **R.S.Sabeenian,**	Certain Investigations on video streaming and Frame rate classification for multimedia Applications	67	3	Sept 2015	547-553	Journal of Theoretical and Applied Information Technology	Scopus 0.320
4	S.Lavanya **R.S.Sabeenian**,	Novel Segmentation of Iris Images for Biometric Authentication Using Multi Feature Volumetric Measure, Research	11	4	Oct 2015	347-354	Journal of Applied Sciences, Engineering and Technology	Scopus 0.5
5	**S VijayaLakshmi** S Padma	Hybrid SVD based Hilbert Huang transform technique for Abnormality detection in Brain MRI images	12	6	Mar 2016	686-695	Research Journal of Applied sciences, Engineering and Technology	Scopus 0.654

June 2014 -May 2015

S.No	Author	Title	Volume No.	Issue No.	Year	Page.No.	Publisher	Impact
1.	**S.Deepa**	Intelligent user interactive model for Real Time Text-Graphic Generation	Vol.64	No.3	June 2014	681-686	Journal of Theoretical and Applied Information Technology	Scopus 0.32
2.	**M.SenthilVadivu**	Fuzzy Rule set based Fetal Heart Rate Detection & separation using wavelet signal analysis under Psychological Moments	Vol.64	No.2	June 2014	420-426	Journal of Theoretical and Applied Information Technology	Scopus 0.32
3.	G. Selvaraj and **K. R. Kashwan**	Performance Analysis on Router Arbitration for On-chip Networking	Vol.8	No.6	Aug 2014	706-13	Research Journal of Applied Science, Engineering and Technology	Scopus SNIP: 0.454
4.	K.Vidyavathi and **R.S.Sabeenian**	Certain Investigations on video streaming and Frame rate classification for multimedia Applications	Vol.67	No.3	Sept 2014	547-553	Journal of Theoretical and Applied Information Technology	Scopus 0.320
5.	K.Vidyavathi and **R.S.Sabeenian**	Estimation and Compensation of Video Motion - A Review	Vol.9	No.6	Nov 2014	164-169	Journal of Convergence Information Technology (JCIT)	Scopus 0.371

6.	**K.R.Kavitha**	Theoretical study and estimation of recombination rate and photo current of quantum dot solar cell	9	8	March 2015	601-615	Research Journal of Applied sciences, Engineering and Technology	Scopus 0.654

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June 2016 -May 2017

S.No	Author	Title	Volume No.	Issue No.	Year	Page.No.	Publisher	Impact factor
1	P.Anandan and **R.S.Sabeenian**	Medical Image Compression using wrapping based fast discrete curvelet transform and arithmetic coding	7	8	June 2016	2059-2069	Circuits and Systems	IF 0.33
2	**K.R.Kavitha** & B.Muarali Babu	Performance Characterization Of Quantum Dot Solar Cell Using Homotopy Decomposition Method	6	8	August 2016	236-251	Asian Journal of research in social sciences and humanities	SJIF 4.557
3	**G.Ravi** **K. R. Kashwan**	A Review on Energy Efficient Routing for Effective Communication in MANET	6	8	August 2016	1903-1912	Asian Journal of Research in Social Sciences and Humanities	SJIF 4.557

4	K.Vidhyavathi& **R.S.Sabeenian**	MALSS: Macro level subblock search algorithm based video coding applications	6	Special	Sep 2016	333-342	Asian Journal of research in social sciences and humanities	SJIF 4.557
5	S.Ponlatha & **R.S.Sabeenian**	High quality video compression for noise removal classification using transforms	6	Special	Sep 2016	232-244	Asian Journal of research in social sciences and6humanities	SJIF 4.557
6	Lavanya. S & **R.S.Sabeenian**	Region based segmentation of IRIS images for efficient bio metric authentication using sectional mass estimation technique and gray level distribution measure	6	Special	Sep 2016	192-205	Asian Journal of research in social sciences and humanities	SJIF 4.557
7	**K.R.Kavitha**& B.Muarali Babu	3 D Numerical Modeling Of Quantum Dot Photo Detector Using Haar Wavelet Transform	6	10	October 2016	352-377	Asian Journal of research in social sciences and humanities	SJIF 4.557

June 2015 -May 2016

S.No	Author	Title	Volume No.	Issue No.	Year	Page. No.	Publisher	Impact factor
1	G. Selvaraj and **K. R. Kashwan**	Evaluation and Analysis of Bidirectional and Unidirectional Routers for Network-On-Chip	10	4	2015	9111-9122	International Journal of Applied Engineering Research	SJR Impact Factor: 0.127
2	S.Ponlatha, **Dr.R.S Sabeenian,** & J.Dhivya	An Efficient method for Video Compression using Motion estimation and Block	10	46	2015	32228- 32239	International Journal of Applied Engineering	0.166

		tree coding					Research	
3	**Vijayalakshmi.S** and Padma.S	BMRI TISEHHT: Brain MRI image segment based on enhanced Hilbert huang transform	10	9	2015	23313-22337	International Journal of Applied Engineering Research	0.166
4	**J.P.Senthil kumar** & M.Chandrasekaran	A comparative study on optimum transmission channel estimation in MIMO-OFDM wireless communication system	10	22	2015	43262-43268	International Journal of Applied Engineering Research	0.166

June 2014 -May 2015

S.No	Author	Title	Volume No.	Issue No.	Year	Page.No.	Publisher	Impact factor
1.	S.Deepa	User Interactive Hierarchical Text to Graphic Generation using Fuzzy Rule sets and Particle Swarm Optimization Techniques	Vol.9	No.22	Nov 2014	15937-15948	International Journal of Applied Engineering Research	0.166
2.	M.Senthil Vadivu	Pattern Mining Techniques for Fetal Heart Rate Detection using Data Mining Under Various Psychological Moments	Vol.9	No. 22	Nov 2014	22191-22202	International Journal of Applied Engineering Research	0.166

3.	S.Ponlatha and R.S.Sabeenian	Robust Feature Selection Based Lossless Video Compression OF Tiny Video Scenes Using MultiFeature Reduction Technique and Wavelet Transform	Vol.9	No.24	Dec 2014	263339-26349	International Journal of Applied Engineering Research	0.166
4	R.S.Sabeenian	Laplacian Regularization Regression Based Impulse Denoising	10	10	April 2015	9918-9922	International Journal of Applied Engineering Research ISSN 0973-4562	0.166
5	R.S.Sabeenian	Motion Estimation and Detection for Curved UHD TV	10	10	April 2015	9923-9925.	International Journal of Applied Engineering Research	0.166
6	D.Jayanthi	Logical effort for SCV based ripple carry adder	10	55	April 2015	81-85	International Journal of Applied Engineering Research	0.166

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June 2017 -May 2018

S.No	Author	Title	Vol No.	Issue No.	Year	Page.No.	Publisher	Impact Factor
1	**K.Manju** **R.S.Sabeenian**	A review on optic disc and cup segmentation	10	1	March	373-379	Bio medical and pharmacology journal	-
2	**M.Susaritha**, J.Senthil Kumar & **S.Vijayalakshmi**	A Survey on architectural modifications for improving performances of devices using FINFET techniques.	4	7	July 2017	1008 - 1012	International Research Journal of Engineering and Technology (IRJET)	IF 5.181

June 2016 -May 2017

S.No	Author	Title	Volume No.	Issue No.	Year	Page.No.	Publisher	Impact Factor
1	**R.S.Sabeenian**	New Edge-Directed Interpolation Based-Lifting DWT and MSPIHT Algorithm for Image Compression	7	9	July 2016	2242-2252	International Journal of Circuits and Systems	NIL
2	M.Varathaguru & **R.S.Sabeenian**	Image copmpression using improved spiht algorithm with DCCI method	12	15	NOV 2016	4785	Journal of advances in chemistry	NIL
3	M E Paramasivam& **R.S.Sabeenian**	Analysis of binaryzation algorithms considering color to gray scale conversion methods on historic document images	4	2	December 2016	1044-1070	International Journal of printing, packaging and allied sciences	NIL
4	**M E Paramasivam&** R.S.Sabeenian	Analysis of binaryzation algorithms considering color to gray scale conversion methods on historic document images	4	2	December 2016	1044-1070	International Journal of printing, packaging and allied sciences	NIL
5	R.Gayathri & **R.S.Sabeenian**	Fast impulse noise removal algorithm for medical images using improved weighted averaging filtering	4	1	December 2016	661-668	International Journal of printing, packaging and allied sciences	NIL

6	**T.Premakumari** M.Chandrasekaran	Particle Swarm Optimization technique based video sreaming in P2P networks using multi attribute multi rate technique	4	5	Dec 2016	3439-3445	International Journal of Printing Packaging and Alied sciences	NIL

June 2015 -May 2016

S.No	Author	Title	Volume No.	Issue No.	Year	Page. No.	Publisher	Impact factor
1	Shermin S. and **Kashwan K. R**	Reliable and Efficient QoS Routing Using EFSM Based Design for Wireless Sensor Networks	7	1	2015	27-37	Journal of Next Generation Information Technology	0.970
2	Thirumalai T,**Kashwan K R**,	Split Ring Patch Antenna for FPGA Configurable RFID Applications	6	3	2015	47-58	Journal of Next Generation Information Technology	SNIP:0.970
3	Dattathreya K. A., **Kashwan K. R**	VLSI Implementation of 400 MHz 128-Bit Low Power Montgomery Multiplier for AES Algorithm	6	1	2015	10-20	Journal of Next Generation Information Technology	SNIP: 0.970
4	Minu M. and **Kashwan K. R**	Automatic Voltage Regulation for Home Appliances Using Power Sensor Tag	2	4	2015	765-769	International Journal of Engineering Research & Technology	NIL

5	Loganayagi T. and **Kashwan K. R**	An Efficient Edge Preserving Filter for Ultrasound Kidney Images	6	3	2015	205-210	International Journal of Engineering Research & Technology	NIL
6	**R.S Sabeenian &** **M.E.Paramasivam**	Color to gray scale conversion using the method of Least squares	5	4	2016		Materials Today-procedings	NIL

June 2014 -May 2015

S.No	Author	Title	Volume No.	Issue No.	Year	Page.No.	Publisher	Impact factor
1.	Anandan, and **R.S Sabeenian**	Curvelet based Image Compression using Support Vector Machine and Core Vector	Vol.4	No.15	June 2014	675-681	International Journal of Advanced Computer Research	1.77
2.	**B.Thiyaneswaran**	Analysis of gabor filter parameter for IRIS	Vol.3	No.5	Sep 2014	45-48	International Journal of Advanced Computer	
3.	S. K. Pushpa, S. Ramachandran and **K. R. Kashwan**	Optimizing 3D Sensor Network Topologies Using Skeleton Extraction Algorithms	Vol.4	No.5	Oct 2014	3318-3327	International Journal of Current Engineering and Technology	NIL

4.	**P.Priya** Rupeshsah	ASH-HEED Protocol for Heterogeneous Wireless Sensor Networks	Vol.2	No.5	Oct 2014	60-64	International Journal of Innovative Research in Computer and Communication Engineering	0.5
5.	**J. Harirajkumar**	Analysis of Various MCM Algorithms For Reconfigurable RRC FIR Filter	4	2	Feb 2015	520-525	International Journal for Research in Engineering and Technology	NIL
6.	**R.S.Sabeenian**	Improved Mean Shift Based Speckle Filtering in SAR Imagery	13	1	March 2015	480-484	International Journal of Emerging Technology in Computer Science & Electronics (IJETCSE)	NIL
7.	**Ravi G**. and **Kashwan K. R**	A New Routing Protocol for Energy Efficient Mobile Applications for Ad hoc Networks	48	3	Mar 2015	77-85	International Journal of Computers and Electrical Engineering	SNIP: 1.673
8	**R.S.Sabeenian**	Restoration of Degraded Documents using Image Binarization Technique	10	7	April 2015	2813-2817	Asian Research Publishing Network ARPN Journal of Engineering and Applied Sciences	0.524

ANNEXURE 5.9

Adjunct faculty profile

Dr. Vijayaragavan Viswanathan

He is a Scientist /CERN, Switzerland and CEO of Tiino Techmations Ltd, Start-up entrepreneur, Visiting Professor, Former Scientist, Steering committee member at Ministry of MSME and Adjunct Professor in Sona College of technology and also Member of Board of Studies in Amrita University . He built the low cost radiation monitoring system which can help track the ionizing radiation during nuclear accidents. He is been part of a team instrumental in taking technology developed for Higg's boson (dubbed by media as God particle) experiment back to schools, universities across the world.

Being grown in the farms, He has seen the gap in taking modern technology to make farmers profitable. This untapped market especially in India on precision agriculture gives a clear edge in business. Taking this advantage and leveraging the technology education which he received in Europe is the right way for Smart Agri has created lot of interest across the world and got its recognition from United Nations - ITU, Climate-KIC, Climate launch pad, Innovate4Climate, Indian government etc.

N Suryanarayana Rao

He obtained BE (Electronics) from Bangalore University in 1970 and MTech in Microwave Engineering from IIT Kharagpur. Since 1972 he has been with ISRO Satellite Centre working in the area of communication system. He has been connected with the various satellite programmes of ISRO right from the beginning.

Dr.Simarjeetsaini

Professor Simarjeet Saini joined University of Waterloo in September 2007. He did his B.Tech. (Hons.) from Indian Institute of Technology, Kharagpur in 1996 and his Doctorate from University of Maryland, College Park in 2001 under the guidance of Professor Mario Dagenais. His Ph.D. thesis was on the design and development of a new platform technology for monolithic integration of photonic devices called Passive Active Resonant Coupler (PARC).

The resulting technology led to the foundation of a start-up company Covega Corporation in Jessup, MD. Saini worked as the Lead Optoelectronics Device Engineer at Covega from Dec. 2000- Oct. 2004 and as Lead Applications Engineer from Oct. 2005-Sept. 2007. He lead the design and development of Covega's single angled facet chips, semiconductor optical amplifiers and high power lasers. In August 2004, Saini co-founded a startup company called Altanet Communications which worked on ethernet based metro area networks with less than 5 ms restoration time using intelligence in the optical domain. He also served as a Post-Doctoral Fellow from Oct. 2004-Sept. 2005 in Professor Dagenais' lab at the University of Maryland where he worked on biochemical sensors and optical packet routing.

Saini has been granted 5 US patents and has 5 more in various stages of application. 3 of the patents have already been commercialized. He has co-authored over 20 Journal papers and 40 conference presentations. He was granted the US Army Lab Research Fellowship from 1996-1998, a Distinguished Graduate Research Assistantship from University of Maryland from 1999-2000, and a SPIE Educational Scholarship in 1999. Besides that he was a part of a team comprising of undergraduate students in Indian Institutes of Technology, Kharagpur which received Institute of Electrical and Electronics Engineers Vincent Benedict Award in 1995 for building a smart library. He is also Co-founder and CTO of Savormetrics.

ANNEXURE 8.1

List of faculty teaching first year courses

The list of faculty teaching first year courses for the academic year 2016-2017, 2015-2016 and 2014-2015 is given in Table A8.1 ,Table A8.2 & Table A8.3 respectively.

Table A8.1 List of faculty members teaching first year courses: 2016-2017

S. NO	Name of Faculty	Qualification	Designation	Date of joining institution	Department with which associated	Distribution of teaching load (%)		
						1st Year	UG	PG
1	Dr.S.Radjarejesri	Ph.D	Associate Professor	01.07.2005	Science (Chemistry)	-	100%	-
2	Dr. T.Maruthavanan	Ph.D	Associate Professor	01.07.2005	Science (Chemistry)	100%	-	-
3	Dr. A.P.Uthirakumar	Ph.D	Associate Professor	19.08.2010	Science (Chemistry)	100%	-	-
4	Dr. N.Panneer Selvam	Ph.D	Asst.Prof	26.07.2010	Science (Chemistry)	100%	-	-
5	Dr.M.Raja	Ph.D	Asst.Prof	29.08.2005	Science (Chemistry)	50%	50%	-
6	Dr.G.Shanthi	Ph.D	Asst.Prof	23.08.2010	Science (Chemistry)	100%	-	-
7	S.Kalaiarasan	M.Sc.,M.Phil	Asst.Prof	17.12.2004	Science	100%	-	-

					(Chemistry)			
8	R.Venkatesh	M.Sc.,M.Phil	Asst.Prof	15.09.1997	Science (Chemistry)	50%	50%	-
9	Dr.C.Saravanan	Ph.D	Asst.Prof	23.10.2014	Science (Chemistry)	100%	-	-
10	Dr. C.Shanthi	Ph.D	Professor & Head	15.09.1997	Science (Physics)	100%	-	-
11	Dr. Raja Sri Sen Jaiswal	Ph.D	Professor	31.01.2003	Science (Physics)	100%	-	-
12	Dr. S.Saravanan	Ph.D	Professor	04.05.2009	Science (Physics)	100%	-	-
13	Dr. V.Balasubramanian	Ph.D	Professor	27.06.2002	Science (Physics)	100%	-	-
14	M.Muthukrishnan	M.Sc.,M.Phil	Asst.Prof	01.07.2005	Science (Physics)	100%	-	-
15	Dr.C.Shanmuga Priya	Ph.D	Asst.Prof	01.03.2006	Science (Physics)	100%	-	-
16	Dr.C.Sridevi	Ph.D	Asst.Prof	20.11.2006	Science (Physics)	100%	-	-
17	P.Kavitha	M.Sc.,M.Phil	Asst.Prof	24.01.2011	Science (Physics)	100%	-	-
18	Dr.P.Sangeetha	Ph.D	Asst.Prof	18.02.2013	Science (Physics)	100%	-	-
19	M.Silambarasan	M.Sc.,M.Phil	Asst.Prof	20.07.2009	Science	100%	-	-

					(Physics)			
20	Dr. M.Renuga	M.Sc.,M.Phil	Professor	01.10.1997	English	50%	-	50%
21	V.Vijaya Lakshmi	MA.,M.Phil	Asst.Prof	01.09.2003	English	50%	-	50%
22	N.Vadivu	MA.,M.Phil	Asst.Prof	20.06.2005	English	100%	-	-
23	G.Sarathalakshmi	MA.,M.Phil	Asst.Prof	20.06.2005	English	50%	-	50%
24	B.Kanchanamala	MA.,M.Phil	Asst.Prof	10.01.2007	English	100%	-	-
25	M.Saraswathy	MA.,M.Phil	Asst.Prof	23.09.2009	English	100%	-	-
26	C.Shahin Banu	MA.,M.Phil	Asst.Prof	03.01.2011	English	100%	-	-
27	R.Sathees Kumar	MA.,M.Phil	Asst.Prof	10.08.2015	English	100%	-	-
28	P.Sree Gayathiri	MA.,M.Phil	Asst.Prof	17.06.2013	English	100%	-	-
29	S.Jayabharathi	M.Sc.,M.Phil	Associate Professor	05.07.2000	Maths	-	60%	40%
30	R.Rahothaman	M.Sc.,M.Phil	Associate Professor	03.05.2004	Maths	-	60%	40%
31	M.Nazreen Banu	M.Sc.,M.Phil	Associate Professor	09.07.2003	Maths	-	60%	40%
32	S.R.Latha	M.Sc.,M.Phil	Asst.Prof	01.04.2005	Maths	40%	60%	-
33	S.Vijay Peter	M.Sc.,M.Phil	Asst.Prof	01.08.2009	Maths	-	67%	33%
34	M.Jayanthi	M.Sc.,M.Phil	Asst.Prof	19.08.2005	Maths	40%	60%	-
35	A.Annie Lotus	M.Sc.,M.Phil	Asst.Prof	26.06.2005	Maths	40%	60%	-
36	A.Saravanan	M.Sc.,M.Phil	Asst.Prof	17.10.2005	Maths	-	100%	-
37	S.Abhirami	M.Sc.,M.Phil	Asst.Prof	03.07.2006	Maths	50%	50%	-

38	G.Suganthi	M.Sc.,M.Phil	Asst.Prof	04.12.2006	Maths	50%	50%	-
39	K.Deiwakumari	M.Sc.,M.Phil	Asst.Prof	02.07.2007	Maths	50%	50%	-
40	A.Abirami	M.Sc.,M.Phil	Asst.Prof	04.07.2007	Maths	50%	50%	-
41	B.Venkatesh	M.Sc.,M.Phil	Asst.Prof	11.06.2007	Maths	-	100%	
42	A.Alfred Leo	M.Sc.,M.Phil	Asst.Prof	01.08.2009	Maths	50%	50%	-
43	T.K.Parvatha Varthini	M.Sc.,M.Phil	Asst.Prof	05.08.2009	Maths	50%	50%	-
44	K.Buvaneswari	M.Sc.,M.Phil	Asst.Prof	03.09.2009	Maths	-	75%	25%
45	Dr.R.Dhavaseelan	Ph.D	Asst.Prof	15.04.2011	Maths	50%	50%	-
46	V.Krishnaraj	M.Sc.,M.Phil	Asst.Prof	18.05.2012	Maths	50%	50%	-
47	N.Sheebha Florance	M.Sc.,M.Phil	Asst.Prof	04.06.2012	Maths	100%	-	-
48	A.S.Nithiya	M.Sc.,M.Phil	Asst.Prof	28.07.2014	Maths	100%	-	-
49	S.Vanitha	M.Sc.,M.Phil	Asst.Prof	03.08.2015	Maths	100%	-	-
50	S.S.Rukmani	M.Sc.,M.Phil	Asst.Prof	10.08.2015	Maths	100%	-	-
51	S.Manikandan	M.Sc.,M.Phil	Asst.Prof	19.08.2015	Maths	100%	-	-
52	S.Uthamapriya	M.Sc.,M.Phil	Asst.Prof	24.08.2015	Maths	100%	-	-
53	R.Shakthivel	M.Sc.,M.Phil	Asst.Prof	27.08.2015	Maths	100%	-	-
54	G.Sakthiambika	M.Sc.,M.Phil	Asst.Prof	01.06.2016	Maths	100%	-	-
55	Dr.S.Anita	Ph.D	Professor / FT	08.10.2001	FT	100%	-	-
56	M.Sugumaran	ME	Asst.Prof / EEE	22.07.2013	EEE	100%	-	-

57	P.Srinivasan	ME	Asst.Prof / ECE	01.07.2013	ECE	100%	-	-
58	S.Senthil Kumar	ME	Asst.Prof / ECE	01.07.2013	ECE	100%	-	-
59	K.Sridevi	ME	Asst.Prof / CSE	19.07.2013	CSE	100%	-	-
60	K.Vaishnavi	ME	Asst.Prof / CSE	02.08.2013	CSE	100%	-	-
61	P.Abinaya	ME	Asst.Prof / CSE	30.07.2014	CSE	100%	-	-
62	M.Janani	ME	Asst.Prof / CSE	06.08.2015	CSE	100%	-	-
63	T.Illakiya	ME	Asst.Prof / EEE	09.07.2012	EEE	100%	-	-
64	J.Raja	ME	Asst.Prof / EEE	01.03.2016	EEE	100%	-	-
65	P.Kumarasan	ME	Asst.Prof / EEE	01.03.2016	EEE	100%	-	-
66	Fatima Joselyn Mystica	ME	Asst.Prof / CSE	01.06.2016	CSE	100%	-	-
67	R.Manikandan	ME	Asst.Prof / EEE	01.06.2016	EEE	100%	-	-
68	R.Karthikeyan	ME	Asst.Prof / Mech	01.06.2016	Mech	100%	-	-

Table A8.2: List of faculty members teaching first year courses: 2015-2016

S. NO	Name of Faculty	Qualification	Designation	Date of joining institution	Department with which associated	Distribution of teaching load (%)		
						1st Year	UG	PG
1	Dr. K.Karunakaran	Ph.D	Professor	12.04.2002	Science (Chemistry)	100%	-	-
2	Dr.S.Radjarejesri	Ph.D	Associate Professor	31.01.2003	Science (Physics)	100%	-	-
3	Dr. T.Maruthavanan	Ph.D	Associate Professor	01.07.2005	Science (Chemistry)	100%	-	-
4	Dr. A.P.Uthirakumar	Ph.D	Associate Professor	19.08.2010	Science (Chemistry)	100%	-	-
5	Dr. N.Panneer Selvam	Ph.D	Asst.Prof	26.07.2010	Science (Chemistry)	100%	-	-
6	Dr.M.Raja	Ph.D	Asst.Prof	29.08.2005	Science (Chemistry)	50%	50%	-
7	Dr.P.Subbramaniyan	Ph.D	Asst.Prof	01.08.2006	Science (Chemistry)	100%	-	-
8	Dr. G.Shanthi	Ph.D	Asst.Prof	23.08.2010	Science (Chemistry)	100%	-	-

9	S.Kalaiarasan	M.Sc., M.Phil	Asst.Prof	17.12.2004	Science (Chemistry)	100%	-	-
10	R.Venkatesh	M.Sc., M.Phil	Asst.Prof	15.09.1997	Science (Chemistry)	50%	50%	-
11	Dr.C.Saravanan	Ph.D	Asst.Prof	04.05.2009	Science (Physics)	100%	-	-
12	Dr. Raja Sri Sen Jaiswal	Ph.D	Professor	31.01.2003	Science (Physics)	100%	-	-
13	Dr. S.Saravanan	Ph.D	Professor	04.05.2009	Science (Physics)	100%	-	-
14	Dr. C.Shanthi	Ph.D	Professor	15.09.1997	Science (Physics)	100%	-	-
15	Dr. V.Balasubramanian	Ph.D	Professor	27.06.2002	Science (Physics)	100%	-	-
16	Dr.P.Jagdish	Ph.D	Associate Professor	26.06.2002	Science (Physics)	100%	-	-
17	M.Muthukrishnan	M.Sc., M.Phil	Asst.Prof	01.07.2005	Science (Physics)	100%	-	-
18	C.Shanmuga Priya	M.Sc., M.Phil	Asst.Prof	01.03.2006	Science (Physics)	100%	-	-
19	Dr.C.Sridevi	Ph.D	Asst.Prof	20.11.2006	Science (Physics)	100%	-	-
20	P.Kavitha	M.Sc., M.Phil	Asst.Prof	24.01.2011	Science	100%	-	-

					(Physics)			
21	Dr.P.Sangeetha	Ph.D	Asst.Prof	18.02.2013	Science (Physics)	100%	-	-
22	Dr. M.Renuga	Ph.D	Professor	01.10.1997	English	50%	-	50%
23	V.Vijaya Lakshmi	MA., M.Phil	Asst.Prof	01.09.2003	English	50%	-	50%
24	N.Vadivu	MA., M.Phil	Asst.Prof	20.06.2005	English	100%	-	-
25	G.Sarathalakshmi	MA., M.Phil	Asst.Prof	20.06.2005	English	50%	-	50%
26	B.Kanchanamala	MA., M.Phil	Asst.Prof	10.01.2007	English	100%	-	-
27	Dr.V.Vijayalakshmi	Ph.D	Asst.Prof	27.03.2008	English	100%	-	-
28	M.Saraswathy	MA., M.Phil	Asst.Prof	23.09.2009	English	100%	-	-
29	C.Shahin Banu	MA., M.Phil	Asst.Prof	03.01.2011	English	100%	-	-
30	S.Jayabharathi	M.Sc., M.Phil	Associate Professor	05.07.2000	Maths	-	60%	40%
31	R.Rahothaman	M.Sc., M.Phil	Associate Professor	03.05.2004	Maths	-	60%	40%
32	M.Nazreen Banu	M.Sc., M.Phil	Associate Professor	09.07.2003	Maths	-	60%	40%
33	S.R.Latha	M.Sc., M.Phil	Asst.Prof	01.04.2005	Maths	40%	60%	-
34	S.Vijay Peter	M.Sc., M.Phil	Asst.Prof	01.08.2009	Maths	-	67%	33%
35	M.Jayanthi	M.Sc., M.Phil	Asst.Prof	19.08.2005	Maths	40%	60%	-
36	A.Annie Lotus	M.Sc., M.Phil	Asst.Prof	26.06.2005	Maths	40%	60%	-

37	A.Saravanan	M.Sc., M.Phil	Asst.Prof	17.10.2005	Maths	-	100%	-
38	S.Abhirami	M.Sc., M.Phil	Asst.Prof	03.07.2006	Maths	50%	50%	-
39	G.Suganthi	M.Sc., M.Phil	Asst.Prof	04.12.2006	Maths	50%	50%	-
40	K.Deiwakumari	M.Sc., M.Phil	Asst.Prof	02.07.2007	Maths	50%	50%	-
41	A.Abirami	M.Sc., M.Phil	Asst.Prof	04.07.2007	Maths	50%	50%	-
42	Dr.R.Vikrama Prasad	Ph.D	Asst.Prof	11.06.2007	Maths	50%	50%	-
43	B.Venkatesh	M.Sc., M.Phil	Asst.Prof	11.06.2007	Maths	-	100%	
44	A.Alfred Leo	M.Sc., M.Phil	Asst.Prof	01.08.2009	Maths	50%	50%	-
45	T.K.Parvatha Varthini	M.Sc., M.Phil	Asst.Prof	05.08.2009	Maths	50%	50%	-
46	S.Sivasubramaniam	M.Sc., M.Phil	Asst.Prof	26.08.2009	Maths	50%	50%	-
47	K.Buvaneswari	M.Sc., M.Phil	Asst.Prof	03.09.2009	Maths	-	75%	25%
48	Dr.R.Dhavaseelan	Ph.D	Asst.Prof	15.04.2011	Maths	50%	50%	-
49	V.Krishnaraj	M.Sc., M.Phil	Asst.Prof	18.05.2012	Maths	50%	50%	-
50	N.Sheebha Florance	M.Sc., M.Phil	Asst.Prof	04.06.2012	Maths	100%	-	-
51	N.Prabhu	M.Sc., M.Phil	Asst.Prof	31.05.2006	Maths	100%	-	-
52	Dr.V.Vanitha	Ph.D	Asst.Prof	28.07.2014	Maths	100%	-	-
53	A.S.Nithiya	M.Sc., M.Phil	Asst.Prof	28.07.2014	Maths	100%	-	-
54	Dr.S.Anita	Ph.D	Professor / FT	08.10.2001	FT	100%	-	-

55	M.Sugumaran	ME	Asst.Prof / EEE	22.07.2013	EEE	100%	-	-
56	P.Srinivasan	ME	Asst.Prof / ECE	01.07.2013	ECE	100%	-	-
57	S.Senthil Kumar	ME	Asst.Prof / ECE	01.07.2013	ECE	100%	-	-
58	M.Janani	ME	Asst.Prof / CSE	22.07.2013	CSE	100%	-	-
59	S.Vidhya	ME	Asst.Prof / CSE	22.07.2013	CSE	100%	-	-
60	K.Vaishnavi	ME	Asst.Prof / CSE	02.08.2013	CSE	100%	-	-
61	P.Abinaya	ME	Asst.Prof / CSE	30.07.2014	CSE	100%	-	-
62	T.Illakiya	ME	Asst.Prof / EEE	09.07.2012	EEE	100%	-	-
63	T.Kalavani	ME	Asst.Prof / ECE	14.07.2009	ECE	100%	-	-
64	V.Geetha Lakshmi	ME	Asst.Prof / ECE	10.07.2013	ECE	100%	-	-

Table A8.3 List of faculty members teaching first year courses: 2014-2015

S. NO	Name of Faculty	Qualification	Designation	Date of joining institution	Department with which associated	Distribution of teaching load (%)		
						1st Year	UG	PG
1	Dr. K.Karunakaran	Ph.D	Professor	12.04.2002	Science (Chemistry)	100%	-	-
2	Dr.S.Radjarejesri	Ph.D	Associate Professor	31.01.2003	Science (Physics)	100%	-	-
3	Dr. T.Maruthavanan	Ph.D	Associate Professor	01.07.2005	Science (Chemistry)	100%	-	-
4	Dr.A.P.Uthirakumar	Ph.D	Associate Professor	19.08.2010	Science (Chemistry)	100%	-	-
5	Dr.N.Panneer selvam	Ph.D	Asst.Prof	26.07.2010	Science (Chemistry)	100%	-	-
6	Dr.M.Raja	Ph.D	Asst.Prof	29.08.2005	Science (Chemistry)	50%	50%	-
7	Dr.P.Subbramaniyan	Ph.D	Asst.Prof	01.08.2006	Science (Chemistry)	100%	-	-
8	Dr. G.Shanthi	Ph.D	Asst.Prof	23.08.2010	Science	100%	-	-

					(Chemistry)			
9	S.Kalaiarasan	M.Sc., M.Phil	Asst.Prof	17.12.2004	Science (Chemistry)	100%	-	-
10	R.Venkatesh	M.Sc., M.Phil	Asst.Prof	15.09.1997	Science (Chemistry)	50%	50%	-
11	Dr. Raja Sri Sen	Ph.D	Professor	31.01.2003	Science (Physics)	100%	-	-
12	Dr. S.Saravanan	Ph.D	Professor	04.05.2009	Science (Physics)	100%	-	-
13	Dr. C.Shanthi	Ph.D	Professor	15.09.1997	Science (Physics)	100%	-	-
14	Dr.V.Balasubramanian	Ph.D	Professor	27.06.2002	Science (Physics)	100%	-	-
15	Dr.P.Jagdish	Ph.D	Associate Professor	26.06.2002	Science (Physics)	100%	-	-
16	M.Muthukrishnan	M.Sc., M.Phil	Asst.Prof	01.07.2005	Science (Physics)	100%	-	-
17	C.Shanmuga Priya	M.Sc., M.Phil	Asst.Prof	01.03.2006	Science (Physics)	100%	-	-
18	Dr.C.Sridevi	Ph.D	Asst.Prof	20.11.2006	Science (Physics)	100%	-	-
19	M.Ananthakrishnan	M.Sc., M.Phil	Asst.Prof	15.09.1997	Science (Physics)	100%	-	-

20	P.Kavitha	M.Sc., M.Phil	Asst.Prof	24.01.2011	Science (Physics)	100%	-	-
21	Dr. M.Renuga	Ph.D	Professor	01.10.1997	English	50%	-	50%
22	V.Vijaya Lakshmi	MA., M.Phil	Asst.Prof	01.09.2003	English	50%	-	50%
23	N.Vadivu	MA., M.Phil	Asst.Prof	20.06.2005	English	100%	-	-
24	G.Sarathalakshmi	MA., M.Phil	Asst.Prof	20.06.2005	English	50%	-	50%
25	B.Kanchanamala	MA., M.Phil	Asst.Prof	10.01.2007	English	100%	-	-
26	V.Vijayalakshmi	MA., M.Phil	Asst.Prof	27.03.2008	English	100%	-	-
27	M.Saraswathy	MA., M.Phil	Asst.Prof	23.09.2009	English	100%	-	-
28	C.Shahin Banu	MA., M.Phil	Asst.Prof	03.01.2011	English	100%	-	-
29	S.Jayabharathi	M.Sc., M.Phil	Associate Professor	05.07.2000	Maths	-	60%	40%
30	R.Rahothaman	M.Sc., M.Phil	Associate Professor	03.05.2004	Maths	-	60%	40%
31	M.Nazreen Banu	M.Sc., M.Phil	Associate Professor	09.07.2003	Maths	-	60%	40%
32	C.Dhanalakshmi	M.Sc., M.Phil	Associate Professor	01.10.2003	Maths	-	100%	-
33	S.R.Latha	M.Sc., M.Phil	Asst.Prof	01.04.2005	Maths	40%	60%	-
34	S.Vijay Peter	M.Sc., M.Phil	Asst.Prof	01.08.2009	Maths	-	67%	33%
35	M.Jayanthi	M.Sc., M.Phil	Asst.Prof	19.08.2005	Maths	40%	60%	-
36	A.Annie Lotus	M.Sc., M.Phil	Asst.Prof	26.06.2005	Maths	40%	60%	-

37	A.Saravanan	M.Sc., M.Phil	Asst.Prof	17.10.2005	Maths	-	100%	-
38	S.Abhirami	M.Sc., M.Phil	Asst.Prof	03.07.2006	Maths	50%	50%	-
39	G.Suganthi	M.Sc., M.Phil	Asst.Prof	04.12.2006	Maths	50%	50%	-
40	K.Deiwakumari	M.Sc., M.Phil	Asst.Prof	02.07.2007	Maths	50%	50%	-
41	A.Abirami	M.Sc., M.Phil	Asst.Prof	04.07.2007	Maths	50%	50%	-
42	Dr.R.Vikrama Prasad	Ph.D	Asst.Prof	11.06.2007	Maths	50%	50%	-
43	B.Venkatesh	M.Sc., M.Phil	Asst.Prof	11.06.2007	Maths	-	100%	
44	A.Alfred Leo	M.Sc., M.Phil	Asst.Prof	01.08.2009	Maths	50%	50%	-
45	T.K.Parvatha Varthini	M.Sc., M.Phil	Asst.Prof	05.08.2009	Maths	50%	50%	-
46	S.Sivasubramaniam	M.Sc., M.Phil	Asst.Prof	26.08.2009	Maths	50%	50%	-
47	K.Buvaneswari	M.Sc., M.Phil	Asst.Prof	03.09.2009	Maths	-	75%	25%
48	Dr.R.Dhavaseelan	Ph.D	Asst.Prof	15.04.2011	Maths	50%	50%	-
49	V.Krishnaraj	M.Sc., M.Phil	Asst.Prof	18.05.2012	Maths	50%	50%	-
50	N.Sheebha Florance	M.Sc., M.Phil	Asst.Prof	04.06.2012	Maths	100%	-	-
51	Dr.S.Anita	Ph.D	Professor / FT	08.10.2001	FT	100%	-	-
52	S.V.Giri Prasad	ME	Asst.Prof / Mech	22.07.2013	Mech	100%	-	-
53	M.Sugumaran	ME	Asst.Prof / EEE	22.07.2013	EEE	100%	-	-
54	P.Srinivasan	ME	Asst.Prof / ECE	01.07.2013	ECE	100%	-	-

55	S.Senthil Kumar	ME	Asst.Prof / ECE	01.07.2013	ECE	100%	-	-
56	K.Sridevi	ME	Asst.Prof / CSE	19.07.2013	CSE	100%	-	-
57	G.Aarthy	ME	Asst.Prof / CSE	01.08.2013	CSE	100%	-	-
58	M.Janani	ME	Asst.Prof / CSE	22.07.2013	CSE	100%	-	-
59	S.Vidhya	ME	Asst.Prof / CSE	22.07.2013	CSE	100%	-	-
60	K.Vaishnavi	ME	Asst.Prof / CSE	02.08.2013	CSE	100%	-	-

ANNEXURE 10.1

MINUTES OF MEETING for different committees.

SONA COLLEGE OF TECHNOLOGY
(Autonomous)

SONA QMS
ISO 9001:2015

20.07.17

MINUTES OF THE 29th MANAGEMENT REVIEW COMMITTEE MEETING

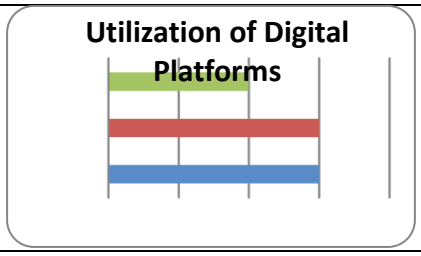
(Date of the meeting: 20.07.17)

ITEM NO.	AGENDA	PAGE
1	To confirm and approve the minutes of the previous Management Review Committee Meeting held on 21.02.17 and approve the action taken on the minutes.	2
2.	To peruse the results of Internal Quality Audit	2
3.	To review the Quality Policy and the attainment of 'College level objectives 2016-2017'	2
4	To review the 'Monitoring and Measurement Results'	5
5	To approve the 'College level objectives 2017-2018'	6
6	To peruse the feedback from alumni and industries	8
7.	To peruse the feedback through suggestion boxes and feedback from students / parents and other stakeholders	8
8.	To peruse the internal and external issues that affect the QMS and the effectiveness of the action taken to address risks and opportunities	8
9.	To peruse the details of QMS – Adequacy, Continuing suitability and Enhancement and Continual Improvement	9
10.	Any other matter of interest	10

The 29th Management Review Committee meeting was held on 20/07/17. The meeting commenced at 11.00 am. The Principal, The QMS Coordinator, HODs and Section heads, internal quality auditors and the ISO core team members and Mr. Alagappan, MR/Vee Technologies were present. The meeting was convened by the QMS Coordinator and was headed by the Principal.

The following points were discussed.

Agenda – 1 Actions taken on points of previous MRC meeting held on 21.02.2017

ITEM No.	MINUTES	ACTION TAKEN
1.a	A separate & unified objective on 'Platforms for digitization'	All digital learning platforms have been grouped under one specific objective in teaching and learning
1.b	A work plan calendar to be prepared for organizing international conference (CSE, IT & MCA)	Work plan calendar prepared and is followed
1.c	Migrating to ISO 9001:2015 standards	We are now adopting the new standards
1.d	Difficulty in identifying ebooks for all courses	An one-to-one discussion was arranged between the publishers and HODs/ domain experts to help them identify ebooks to be prescribed as text books for students.
1.e	Utilization chart for the digital platforms on a 5 point grade scale	

Agenda – 2 The Results of Internal Quality Audit

The results of the Internal Quality Audit conducted on 22/6/17 and 23/6/17 were discussed. A total number of 14 non-conformities were reported. Scopes for improvement/ Suggestions were also taken into consideration. Mr. Alagappan insisted to attach the proof of evidence while closing the non- conformities and to ensure that the documents are signed by the auditor and the auditee.

Agenda –3 To review the Quality policy and the attainment of college level objectives 2016-2017

The quality policy of the institution was reviewed and the scope of the quality polict was discussed. Then the Report on the attainment of "College–level quality objectives" for the period 2016-17 was taken-up for discussion.

S.NO	OBJECTIVE	PERSON IN-CHARGE	STATUS
1	To complete the renewal of autonomous status by Oct 2016	Mr. Selvamuthu, Admin	✓ Achieved
2	To finalize and implement Regulations 2015R for all disciplines	Member Secretary, Academic Council	✓ Achieved
3	To assess the level of attainment of vision and mission, PEOs, POs and COs of all programmes once in 6 months	The Principal	In progress
4	To conduct academic audits for all programmes at least once a year	Member Secretary, Academic Council	✓ Achieved
5	To organize a minimum of two pedagogical/andragogical training programmes per year for new teaching faculty and for those who require additional training	HR Department	✓ Achieved
6	To organize at least one common skill-development programme per year for the supporting staff	HR Department	✓ Achieved
7	To review student performance in CIE tests for all departments within 2 weeks of completion of the tests	Principal	✓ Achieved
8	To ensure that the first-year and second year students have laptops inclusive of e-books for their courses on the opening day of odd and even semester	HOD/ First Year	✓ Achieved
9	To organize the distribution of new textbooks and course materials to all students of third and final year within 2 weeks of commencement of classes every semester	Purchase Department	✓ Achieved
10	To complete the first level of MOODLE training for all faculty by July 2016 and to ensure that they are conversant with the application and to organize one workshop per department on the use of BLACKBOARD LMS	Department of CSE/IT	✓ Achieved
11	To organize one international conference every year such that major disciplines have a conference once in 5 years	HODs	In- Progress
12	To follow up on the construction of a University Block	The Principal	In progress
13	To achieve 100% campus placement of eligible & interested candidates by June-July every year or 90% placement according to NBA norms with an average student's salary of 3 Lakhs every year	Placement department	✓ Overall placement till date: 88% with avg salary of 2.81 lakhs

14	To sign MoUs or enter into collaborations with a minimum total of ten industries for mutually-beneficial interaction and organise at least 10 joint programmes	The Heads of all departments	✓ Achieved MOUs signed:18 Joint Programmes: 15 Internship: 72
15	To organize a minimum of 40 continuing education courses / programmes for the benefit of society in the region and generate 40 Lakhs through Continuing Education Centre	CEC	✓ Achieved No. of programmes : 33 Total revenue : 41.66 lakhs
16	To achieve a revenue generation to the tune of Rs.3 Crores through R-and-D, continuing education, industrial consultancy, testing services, etc.	R&D Centres, CEC, Departments	✓ Achieved <u>Revenue generation</u> Consultancy: 131.77 Lakhs Training : 13.13 Lakhs Testing: 18.73 Lakhs CE Programmes:40.66 Lakhs Grants : 310.18 Lakhs Total : 514.47 Lakhs
17	To have all UG programmes and MCA and MBA accredited by NBA	NBA Coordinator, Principal, Director/Academics	In progress
18	To prepare for NAAC accreditation from Oct 2016 and send application by March 2017	Principal, Director/Academics, AICTE/ NBA Division	In progress
19	To introduce RFID in the library and for stock taking	Librarian	In progress

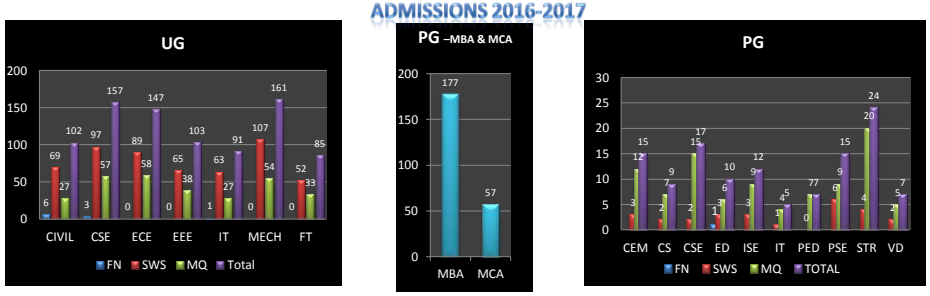
The following points were discussed

1. The HODs presented the difficulty in assessing the attainment of PEOs Pos and Cos and it was decided to arrive at an uniform measurement that should be followed for assessing the attainment of PEOs Pos and Cos in all departments.
2. The Member secretary informed that the Academic Audit committee should be framed for the current academic year

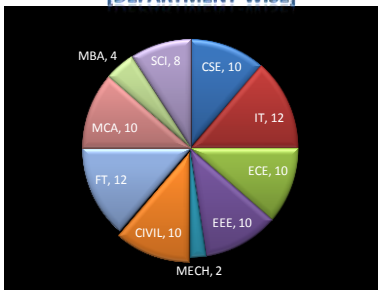
Agenda – 4 To review the 'Monitoring and Measurement Results'

The MR presented the monitoring and the measurement results of the institution. The following nine KPIs were listed out under which the performance was analyzed.

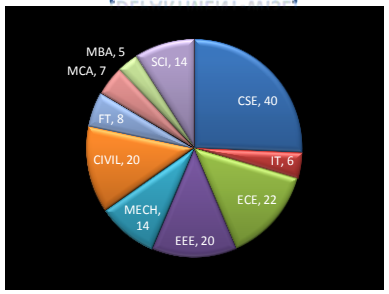
ADMISSIONS 2016-2017



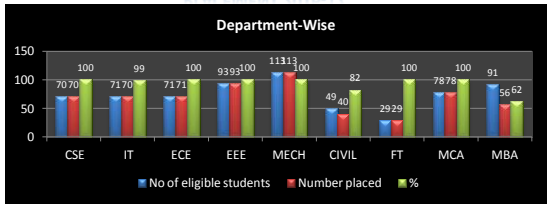
GUEST LECTURES CONDUCTED 2016-2017 [DEPARTMENT-WISE]



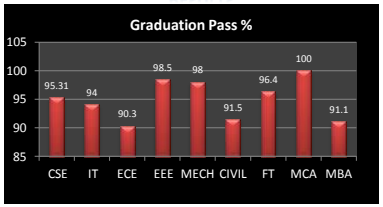
JOURNAL PUBLICATIONS 2016-2017 [DEPARTMENT-WISE]



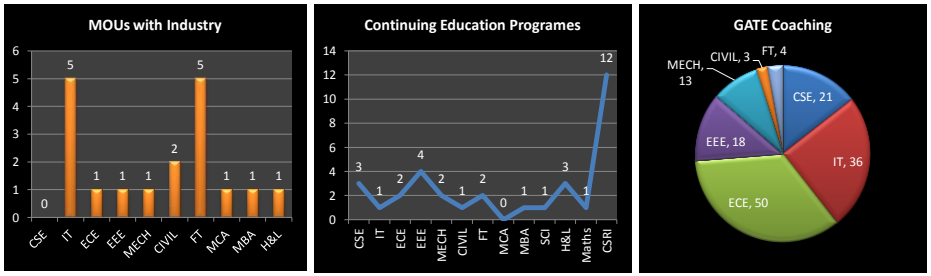
PLACEMENT 2016-17



RESULTS



MOU, CONTINUING EDUCATION PROGRAMMES AND GATE COACHING



REVENUE GENERATED 2016-2017

The following suggestions were given by the members of the meeting

1. To include department wise average salary in placement chart and to display the logo of the top five companies
2. To include lateral entry strength in the admission KPI
3. To present dept.wise counsultancy, training and testing for revenue generation

Agenda – 5 To approve the 'College level objectives 2017-2018'

College Level Objectives for 2017-2018

1) **Autonomous Status and Curriculum Development**
   a. To implement Choice based credit system in the Autonomous – Regulations 2015R
   b. To assess the level of attainment of vision and mission, PEOs, POs once a year and COs once in 6 months for all programmes
   c. To conduct academic audits for all programmes at least once a year
   d. To introduce and implement 6 months full time Project during 8th semester for all branches from 2015 regulation onwards

2) **Staff Development**
   a. To organise a minimum of two pedagogical training programmes per year for new teaching faculty and for those who require additional training
   b. To organise at least one common skill-development programme per year for the supporting staff

3) **Teaching–Learning Process**
   a. To review student performance in CIE tests for all departments within 2 weeks of completion of the tests
   b. To attain 100% utilization of the digital learning platforms (Moodle/Blackboard/LCS) by all teaching faculty by October 2017
   c. To register and complete atleast two relevant MOOC courses/ 1 MOOC course and 1 FDP/industrial training(not less than 5 days) by all teaching faculty per year
   d. To appoint two adjunct faculty from industry for every programme

4) **Co-Curricular Activities**
   a. To organise one international conference every two years such that major disciplines have a conference once in 5 years
   b. To conduct coaching classes for national level competitive exams like UPSC, GATE etc and to ensure that 2 students from each department clear the exams successfully

5) Extracurricular Activities

a. To Periodically carryout extra-curricular activities through NCC, NSS, YRC and other Clubs.

b. To be within the top three rank of Anna University, Chennai sports meet and to achieve at least 5 medals at the national/international level

6) Infrastructure Development

a. To follow up on the construction of a University Block and complete it by 2019

b. To form a Purchase - Executive committee and conduct purchase approval meeting once a year for carrying out budget utilization and infrastructure maintenance

7) Placement

To achieve 95% campus placement of eligible & interested candidates by June-July every year with an average student's salary of 3 Lakhs every year

8) R-and-D, Industry- Institute Interaction, Continuing Education, Consultancy, Incubation

a. To sign MoUs or enter into collaborations with a minimum total of ten industries for mutually-beneficial interaction and organise at least 10 joint programmes

b. To organise a minimum of 40 continuing education courses / programmes for the benefit of society in the region and generate 45 Lakhs through Continuing Education Centre

c. To achieve R& D grants and revenue generation through consultancy, training and testing services etc. to the tune of Rs.3. Crores

9) Accreditation

a. To get NBA accreditation for the UG programmes of Civil, CSE, ECE & IT and PG programmes MBA and MCA

b. To renew NAAC accreditation before March 2018

10) Security System

a. To implement RFID in the library and for stock taking

b. To install surveillance cameras at vantage points in the campus- Phase II before October 2017

The college level objectives for 2017-2018 was taken for discussion. Some of the objectives were revised and approved. The following points were discussed and recorded based on the valuable suggestions put forth by the members during the meeting.

1. The HODs presented the difficulty in assessing the attainment of PEOs Pos and Cos and it was decided to arrive at an uniform measurement that should be followed for assessing the attainment of PEOs Pos and Cos in all departments.
2. The Member secretary informed that the Academic Audit committee should be framed for the current academic year
3. The principal informed the Librarian and the HOD/ECE to fix a deadline and initiate work accordingly for implementing RFID in the library
4. Mr.Alagappan informed all the auditees to make sure that all obsolete documents are segregated and removed from all notice boards and displays
5. The Principal also informed that a sum of 2 lakhs has been granted from AICTE for the International conference planned by the Departments of CSE, IT and MCA in the month of Dec 2017. Prof. Selvaraj of MBA informed that the Department of MBA has planned an International Conference "Futura" on 28, 29 & 30th in Goa
6. HOD/ CIVIL recorded her concern in having a career counseling centre through which awareness and counseling can be given to students regarding nationa and international competitive examinations like GRE, TOFEL, GATE, UPSC etc
7. The Training Coordinator Dr.Anitha informed about the coaching classes for UPSC "Swadesh II" which is scheduled to start in the month of August 2017. Currently classes for Swadesh- I is going on with a total strength of 77 students.

Agenda – 6 Feedback from Alumni and Industry

A consolidated report on the feedback received from alumni is given below:

- Few alumni have come forward to act as mentors for the student's project.
- Use the social media and online forums prove very effective for alumni
- Alumni gettogether - very useful, exciting and motivating

A consolidated report on the feedback received from Industry is given below:

Strength of our students: motivated & high spirits

Suggestions/ Observations:

Feedback from IT companies:

- Problem solving skills should be improved
- To be clear on the content of resume
- Need more exposure in real time project development

Feedback from CORE companies:

- Students should be thorough in all basic concepts and fundamentals.
- Students have to do more number of mini projects to demonstrate the application of the concepts understood.
- Interpersonal skills and team building concepts to be trained

Agenda – 7 Feedback through suggestion boxes and feedback from students / parents and other stakeholders

The HR-Manager informed the members that there were no complaints received from students through suggestion boxes very recently because of examinations and summer holidays. HOD/IT and HOD/EEE presented the feedback received from parents and the action taken on them.

S.No	Parent's Request	Action Taken
1	To give more programming knowledge for their ward	Interested students can join SPROC (Sona Programming Club)
2	To provide bus facilities in some places at Salem	College facilities and timing details informed to students
3	To send SMS regarding all students event	Dept. event schedule shared thru SMS
4	To arrange maths special classes	Arranged maths remedial classes in the evening
5	To give Yoga training and health tips	Yoga and medical center coordinator number is shared to the interested students and were asked to attend classes in the evening
6	To declare holiday on alternative Saturdays	Request has been made to the Principal
7	To improve food quality in the hostel	Communicated orally to the General Manager-Hostels
8	To make arrangements to pay fees through online	Facility made available

Agenda – 8 The internal and external issues that affects the QMS and the effectiveness of the action taken to address risks and opportunities

The internal and external issue affecting the institution was taken up for discussion and it was informed that every auditee should make sure that the risks cover all the issues that have been identified.

S.No	Departments	Number of Risks Identified	Acceptable Risks (after mitigation) (RPN<=16)	Not Acceptable Risks (after mitigation) (RPN>16)
1	MECH (UG & PG)	27	27	Nil
2	EEE (UG & PG)	20	20	Nil
3	CIVIL (UG & PG)	22	22	Nil
4	ECE (UG & PG)	26	26	Nil
5	CSE (UG & PG)	26	26	Nil
6	IT (UG & PG)	45	45	Nil
7	FT	33	33	Nil
8	MBA	21	21	Nil
9	MCA	32	32	Nil

10	Science	19	19	Nil
11	Humanities & Languages	7	7	Nil
12	Mathematics	22	22	Nil
13	Academic Council	5	5	Nil
14	Library	3	3	Nil
15	Physical Education	6	6	Nil
16	Human Resource	4	4	Nil
17	Training	5	5	Nil
18	Placement	2	2	Nil
19	AO-Purchase &Transport	3	3	Nil
20	Hostel: Boys & Girls	6	6	Nil
21	Office of COE	8	8	Nil
22	MR	7	7	Nil
23	Top Management	27	27	Nil

Agenda–9 QMS–Adequacy, Continuing suitability, Enhancement and Continual Improvement

QMS-Adequacy and enhancement was also discussed. The MR informed that the institution has migrated to ISO 9001:2015 from 1st April 2015. The process manual has been revised based on the new standards and is available for access through MIS. The recertification audit is scheduled on 3rd and 4th August and all concerned section heads were requested to be well prepared for the same.

Agenda – 10 Any other matter of interest

Department level objectives of two departments, Science and ECE were taken up for discussion and revisions were suggested in them. All other departments were asked to revise their objectives based on the suggestions and guidelines given.

MR/ SONA QMS Coordinator

PRINCIPAL

Copy to:

1. Submitted to the Chairman
2. Submitted to the Director - Academics
3. Deans / Directors / HODs / Section Heads
4. COE
5. AOA/AOS/AOF
6. Director - HR
7. Placement & Training Cell
8. Librarian
9. Deputy Warden (Hostel)
10. Sports Director
11. I.Q. Auditors
12. File

MINUTES OF GOVERNING BODY MEETING

Held on Monday 04.07.2016 at 10:15 am – MBA Conference Hall

Sona College of Technology (Autonomous), Salem

The Governing Body meeting was held at 10.15 AM on Monday, 04.07.2016 at Sona College of Technology, Salem.

Thiru. C. Valliappa, Chairman, presided over the meeting and the following members were present.

1. Thiru. C. Valliappa
   Chairman
   Sona College of Technology
   Salem – 636 005

2. Dr. S. Xavier Alphonse SJ
   Co-ordinator Jesuit Higher Education Commission. Tamil Nadu UGC Nominee & Former Principal of Loyola College, Chennai Jesuit Residence, St. Joseph College, Trichy-620 002

3. Thiru. Chocko Valliappa
   Vice-Chairman
   Sona College of Technology
   Salem – 636 005

4. Thiru. Thyagu Valliappa
   Vice-Chairman
   Sona College of Technology
   Salem – 636 005

5. Dr. C. V. Koushik
   Director - Academics
   Sona College of Technology
   Salem – 636 005

6. Dr. C. Eswarlal
   Professor / EEE
   Sona College of Technology
   Salem – 636 005

7. Dr. M. Usha
   Principal & Member Secretary
   Sona College of Technology, Salem – 636 005

Dr. V. Karthikeyan, Principal, Thiagarajar Polytechnic College, Salem attended the meeting as a special invitee.

The following members were not present due to their previously-committed engagements.

1. Padma Bhushan Dr. R. Kumar
   Educationalist
   47/1, 7th Cross, 5th Main,
   Malleswaram,
   Bengalooru – 560 003

2. **Dr. S. Sukumar** (Retd.)
   Professor of Civil Engineering Department & Anna University
   Nominee Government College of Engineering, Salem.

3. Dr. S. Subramanian
   Former Vice – Chancellor
   Bharathiar University, 23, Vidhya
   Nagar, Civil Aerodrome Post,
   Coimbatore-14

4. Dr. A. Ebenezer Jayakumar
   State Government Nominee &
   Director Academics, Sri RKCE, Coimbatore.

5. Dr.V. Jayaprakash
   Senior Administrator/Professor-Mechanical
   Sona College of Technology
   Salem – 636 005

6. Thiru. R. Srivatsan
   Auditor
   Arts College, Maravaneri,
   Salem – 636 005

Dr. M. Usha, Principal, welcomed the Governing Body members, and the faculty and staff of Sona College of Technology.

The Chairman, Thiru. C. Valliappa, briefed the status of the institution and its achievement during the last 6 months.

Dr. C. V. Koushik, Director – Academics, presented details of the achievements of the institution to the members for comments, discussion and approval.

A. GENERAL:

Item No.A1	**To confirm and approve the minutes of the previous governing body meeting held on 22.01.2016 and approve the action taken on the minutes**

The members confirmed the minutes of the previous governing body meeting held on 22.01.2016 and approved the actions taken and follow up of the minutes.

Recorded

B. ADMINISTRATION:

Item No.B1	**To peruse the role of the administration of the institute under Autonomous status**

- The amendments in the Autonomous Regulations-2015 and in the curricula and syllabi approved by the Boards of Studies and subsequently by the Academic Council held in 2015-16 were presented. The governing body approved all of the amendments:
  - Amendments to Autonomous Regulations-2015
  - Introduction of a revised version of the curricula and syllabi to be called Autonomous Regulations-2015R and effective from 2016-17
  - Constitution of a Standing Committee to peruse the fine details and review the implementation of the CBCS
  - Proposal for modification of the BOS set-up which would henceforth cater to the precise needs of individual disciplines in all respects by having special discipline-wise sub-committees to fine-tune the syllabi of the foundation courses in place of the BOS for the first-year.
- The members approved the appointment of the Dr. M. Usha as Principal.
- With regard to the renewal of the autonomous status for which the college had already sent the application to UGC through Anna University, Dr. Xavier Alphonse suggested that Joint Secretary, Autonomous Colleges, UGC may be addressed for any clarification/action on the autonomous status. He also advised the college authorities to go through the Subramanian Committee Report about the New Education Policy 2016.

Perused & Recorded

Item No.B2 **To peruse the support system for the development of the Institute**

- Dr. Alphonse observed that central funding agencies such as UGC, AICTE and DST have now started to grant funds to private institutions also. He suggested that Sona College could use this positive trend to get research funding.

Perused & Recorded

C. ACHIEVEMENTS

Item No.C1 **To peruse the awards and honours received by the institution for various activities**

- Dr. C.V. Koushik mentioned that Sona College of Technology is one among the top 50 engineering colleges in India, including NITs, IITs and leading universities. Sona College was placed at the 47th Rank by MHRD, Govt. of India under its NIRF India-Rankings 2016 Scheme.
- While appreciating Sona's ranking, Dr. Alphonse, suggested having benchmarks set by Sona College for itself and not worry much about ranking or comparison with other institutions, as he felt that Sona should compete with itself.
- He suggested that Sona could have its own targets and work towards achieving them every year. The benchmarks may be raised annually after a review of the achievements.
- Dr. Koushik also highlighted other awards won by Sona like IIIE award and SIIP awards.
- The department heads presented their respective department achievements.
- It was recorded that Dr. J. Akilandeswari has been selected in the panel of scholars recommended for Fulbright-Nehru Scholarship to attend an International Educators and Administrators Seminar in USA.
- The members appreciated Sona for the positive response of approval from DST for the 3-crore worth research proposals sent under various schemes.

Perused & Approved

D. APPROVAL OF THE BUDGET

Item No.D1 to D6 **To peruse and approve the budget allocation and Utilization**

- The budget utilization for the year 2014-15 was discussed and the un-audited budget allocations and utilization for the year 2015-16 and budget for 2016-17 were discussed and approved.
- The continuation of the services of the auditors Ms R. Srivatsan and Co., Chartered Accountants and Ms Astral Consulting Ltd., Coimbatore was approved for 2016-17.

Perused & Approved

E. APPROVAL OF THE PERSPECTIVE PLAN

Item No.E1 **To peruse and approve the perspective plan of the institution for further development**

- The perspective plan for the next decade envisioning the setting up of a private university and aiming for world-class education and research through reputed international collaborations was well received by the members.

  Dr. Alphonse suggested tying up with foreign universities for viable short-term courses rather than programmes with extended periods of time for which government approval was mandatory.

- He also suggested offering a diploma course on Life Skills and Employability Skills to include the broad areas of personal skills, employability skills and coping mechanisms. Elaborating on this, he added that the governing body may approve the teaching of soft- skills and employability-skills in three streams:

  a) *For Regular UG Students of Sona College*: The topics to be given by Dr. Alphonse could be merged with those in the Soft Skills and Aptitude (SSA) courses which has been developed recently for implementation from 2016-17 onwards under Sona Autonomous Curricula 2015-R.

  b) *For Regular Diploma Students of Thiagarajar Polytechnic:* This would strengthen the

courses already being offered by the polytechnic for soft- skills and employability.

c) *For Outside Participants (as a Continuing Education Course)*: This would be a 160-hr diploma course on Soft-Skills and Employability-Skills for students of other colleges.

- Dr. Alphonse also offered to organise a workshop for the soft-skills faculty and English faculty of both the colleges and to provide guidance to the soft-skills team of Dr. Anita in teaching the course effectively.
- In view of the declining number of faculty taking up BEC, it was stated that the high fees charged for it was the main discouraging factor. Addressing this situation, Mr. Thyagu announced that from 2016 onwards, 100% fee reimbursement would be considered for faculty passing the examination with distinction, 50% reimbursement for those passing with merit and 25% for those getting a pass. This was approved by all the members.

Perused & Approved

F. ADMISSIONS

Item No.F1 to F3	**To peruse and approve the admissions**

- The student admission status for 2015-16 was discussed. It is observed that the admission through counselling may be improved. To improve PG admissions, Vice Chairman Mr. Chocko, suggested having weekend classes as an effective way to attract industry people in the neighboring regions. Chairman Valliappa suggested making an analysis on this before thinking about its implementation.

Perused & Recorded

G. INFRASTRUCTURE

Item No.G1 to G5	**To peruse and approve the infrastructures**

- The progress made in the construction of buildings and modernization of

laboratories, general amenities were presented and approved.

- The members were informed that the plan for the University Administrative block has been approved by the Town and Country Planning Authorities and that the construction would start during the academic year 2016-17.
- Mr. Chocko suggested the idea of introducing RFID system to track library books. Mr. Thyagu encouraged the ECE Department to come out with a viable technology for this, suggesting that if it was cost effective, it may also be used for annual stock-checking.

Perused & Recorded

H. FACULTY/STAFF

Item No.H1 to H3	**To peruse and approve the faculty recruitment**

- The faculty norms, faculty who left the institution and new faculty who were recruited during 2015-16 were discussed.
- Mr. Gurudatt elaborated on the parameters considered for the staff appraisal and stated that system was being fine-tuned every year to make it less ambiguous and thus more reliable.

Perused & Approved

I. REVIEW OF AUTONOMOUS STATUS

Item No.I1 to I5	**To peruse and review the autonomous status and accreditation status**

- Sona Regulations-2015 and the CBCS were discussed.
- Dr. Koushik informed the members that the two-year NBA-accreditation in the Tier-II format for the four UG programmes BE-CSE, BTech-IT, BE-ECE, and BE- Civil expired on 30-6-2016 and that the college had applied afresh for re-accreditation in the Tier-I format. NBA's response was awaited.
- He also informed the members that the NBA have awarded three UG programmes, namely BE-Mech, BE-EEE and BTech-FT, two-year provisional accreditation from 01.07.2016 to 30.06.2018.
- Chairman Sri. Valliappa asserted that participation in sports should be made compulsory and suggested that this be included as a one-credit course.

- Dr. Alphonse suggested the introduction of other courses like life skills, community service and entrepreneurship skills, all together of around 20 credits, as compulsory courses in the first year. In response it was stated that students were involved in leaning all of these skills, but that it was left to the option of interested students.
- Dr. Alphonse's would be discussed in greater detail by the senior administrators and the management and appropriate action would be taken. For now, it was decided to introduce sports as a compulsory course during the first year from 2016-17 onwards.
- He also suggested that each department should be more empowered in academics teaching, evaluation, attendance, discipline etc. Departments should have autonomy even to decide the OD permissions for students.
- The Chairman suggested including members from Hostel and Sports in the Anti-Ragging Committee. Dr. Alphonse advised taking serious action on students involved in ragging without showing any mercy whatsoever. He also suggested appointing a full-time counsellor to deal with students and even a few faculty who needed special counselling.

Perused & Recorded

J. COLLABORATION INITIATIVES WITH INDUSTRY

Item No.J1	**To peruse and approve the collaborative initiatives with industry**

- Industry collaborations involving different departments were presented. In accordance with the Chairman's suggestion, the year of signing the MOUs with industry was also included to indicate the life of the collaborative initiatives.
- Also with regard to his suggestion to evaluate performance in the implementation of MOUs with industry, it was suggested that the faculty appraisal which already includes marks for industry interaction may be considered as an aspect of HODs' performance to evaluate the extent and success of MOU implementation. This would be considered during the revamping of thestaff appraisal system.

Perused & Approved

K. RESEARCH AND DEVELOPMENT

Item No.K1 to K3 **To peruse and review R&D work**

- The research and development activities of different departments were presented.
- The members felt that continuing education programmes and consultancy services offered by the departments should be improved with regard to the number of programmes and the revenue generated. The Chairman called for a separate meeting to discuss this topic in detail.
- Vice-Chairman Mr. Thyagu suggested that the consultancy works done by Sona is to be publicised through the website, Facebook, etc.
- Dr. Alphonse suggested that each department should frame quality objectives to commit themselves for publications, consultancy, research funding etc. and periodic reviews should see how well these commitments are fulfilled. In response it was mentioned that the Sona-QMS had department-level quality objectives which are already addressing these points.

Perused & Recorded

L. ENTREPRENEURSHIP DEVELOPMENT CELL

Item No. L1 **To peruse and review entrepreneurship**

- Mr. Thyagu suggested that each department should start a social media team, e.g. Twitter team *led by students* to generate greater publicity for the Sona incubation centre. He added that a start-up committee can also be formed.

Perused & Approved

Item No. M1 to N1 **NCC, NSS, Sports, Other Extra-Curricular Activities, Hostels**

☐ The extra-curricular activities and the functioning of the hostelswere reviewed by the members.

Perused & Approved

O. STUDENTS

Item No. O1 to O4 **Alumni Association and Student Performance**

- Vice-Chairman, Mr. Thyagu, suggested that each department should display posters about their student achievements at prominent places in the vicinity of the department.
- Mr. Chocko encouraged strengthening the alumni cell in each Department. He also announced that a cash award of Rs. 50,000/- would be given to departments that enrolled 90% or more of their total alumni.
- With regard to placement, he emphasised that the performance must be stated the way NBA calculates placement performance, i.e. on the basis of the strength of the whole batch of students rather than on the basis of those interested or eligible for placement.

Recorded

Item No. P1 to R1 **Sonaversity, Professional Societies and Sona-CSRI**

- The members reviewed all of the items related to membership in and activities conducted by professional societies.
- It was felt that the performance of Sonaversity needed to be reviewed separately for coming up with strategies to improve its work range and revenue generation.

Perused & Approved

S. ANY OTHER ITEMS

Item No.S1-S2 **To Peruse and approve the following additional points**

- The Chairman asked to arrange a meeting with heads at the earliest for discussion on how to improve the extent of and revenue generation through consultancy and other extension activities.
- It was decided that the next meeting may be held during last week of January 2017 in Bangalore.

The meeting came to an end at 1:45 PM after the Principal's formal vote of thanks to all attendees.

Perused & Approved

MINUTES OF ACADEMIC COUNCIL MEETING

Sona College of Technology, Salem – 636 005

(An Autonomous Institution)

Seventh Academic Council Meeting

Date : 10.8.2017

Minutes of the Meeting:

The Seventh Academic Council meeting was held on Friday 28th July 2017 at10a.m in the MBA Conference Hall.

The Chairman of the Academic Council, Dr. M.Usha, Principal, briefed the history of the college right from its inception and presented the recent achievements by Sona College of Technology (SCT) and the details regarding various Research centres in the college.

The Member Secretary of the Academic Council, Dr.R.Shivakumar, presented the Academic activities for UG and PG programmes under Choice Based Credit System. He also presented the agenda for the seventh Academic Council meeting to the members.

The members discussed and endorsed all the items as listed below:

1. Approval for amendments in 2015R and 2015 Regulations for all UG Programmes on the following areas in the regulation.

(a) Industrial Training, Internship and Online courses for students.

(b) Assessment Procedures – Tests and Examinations.

(c) Semester abroad program for students.

2. Approval for amendments in assessment procedures– Tests and Examinations under 2014 Regulations for all UG Programmes.

3. Approval for all BOS meeting minutes pertaining to curriculum and syllabi under 2014, 2015 and 2015R Regulations of all UG Programmes and PG Programmes under 2015 Regulation.

4. Approval of proposed MBA Regulations 2017.

5. Approval for (2013-2017) batch students End semester results, passed by respective boards.

6. Approval for start of Diploma and Certificate courses for all UG and PG students.

The following points were discussed and approved by the Academic Council.

(1). For all UG Programmes under Regulations 2015 and 2015R.

- As per the clause 6.5.1 and 6.5.2 of B.E/B.Tech Regulations 2015R and also 2015, a student earning three credits in industrial training (or) internship shall be permitted to drop one professional elective/open elective. The Academic Council suggested that the Department Consultative Committees (DCCs) concerned shall evaluate the industrial training of students.
- The assessment for Industrial training/ Practical training / Internships/ Online courses/ Industry based courses will be evaluated as stated in Clause 12.2.4 for 2015 and 2015R Regulations.

- Students who undergo 4, 8 or 12 weeks of Online courses can earn 1, 2 or 3 credits respectively for courses in NPTEL, AICTE- SWAYAM etc. Alternatively, students who undergo 15, 30 or 45 hours of Online courses can earn 1, 2 or 3 credits respectively. However, the assessment of Online courses will be similar to assessment procedures for Internships/Industrial training stated in Clause 12.2.4.

- The revised assessment pattern for all UG programmes under 2015 and 2015R Regulations was approved as follows: The pattern includes three CIE Tests (each 1 ½ hours), three online tests in line with concerned CIE tests, marks for attendance percentage in the class and assignments 1 and 2. Their weightages are 6+6+6+7+5+5+5 = 40 marks respectively.

- All the three CIE tests are mandatory for internal mark calculation. A final retest (after CIE Test3) shall be conducted for any six courses (out of three CIE tests)in which the students did not appear due to genuine reasons like Medical leave / Co-curricular and Extra-curricular activities representing the college at State/National/ International level events/ any other special permission authorized by their HOD and or Principal.Those students who have to improve their CIE marks on any one course are also permitted to attend the retest with prior permission from the concerned head of the

department. The above category students should compulsorily submit the retest permission letter (approved by HOD) to COE office within 7 days after the completion of concerned CIE test cycle.

- The assessment procedure for theory course with laboratory component will be as follows: There shall be three CIE tests: the first two tests (each 50 marks) will be evaluated as theory exams and the third test (maximum mark 50) will be evaluated as laboratory component. The internal mark will be calculated as stated in Clause 12.1. The SEE for this course will be evaluated similar to a theory course as stated in Clause 12.4.1.

- For providing international exposure for meritorious students, MoUs will be signed by Sona College of Technology with foreign universities. Students can utilize this opportunity to do courses of one or two semesters in foreign universities and the transfer of credits for courses done in foreign universities will be facilitated.

- Each department of Sona college of Technology shall offer a diploma/ certificate courses (domain related) for UG and PG students for their career skill enhancement. Diplomas and certificates shall be used under the seal of Sona College of Technology. (As per UGC Revised Guidelines for Autonomous colleges 2017, Clause 18.i).

(2). For all UG Programmes under Regulations 2014.

- The revised assessment pattern for all UG programmes under 2014 was approved as follows: The pattern includes three CIE Tests (each 1 ½ hours), three online tests in line with concerned CIE tests, for attendance percentage in the class and assignments 1 and 2. Their weightages are 6+6+6+7+5+5+5 = 40 marks respectively.

- All the three CIE tests are mandatory for internal mark calculation. A final retest (after CIE Test3) shall be conducted for any six courses (out of three CIE tests)in which the students did not appear due to genuine reasons like Medical leave / Co-curricular and Extra-curricular activities representing the college at State/National/ International level events/ any other special permission authorized by their HOD and or Principal.Those students who

have to improve their CIE marks on any one course are also permitted to attend the retest with prior permission from the head of the department concerned. The above category students should compulsorily submit the retest permission letter (approved by HOD) to COE office within 7 days after the completion of respective CIE test cycle.

(3). Approval of minutes of BOS Meetings conducted during June 2017.

The Academic Council approved all the BOS meeting minutes pertaining to curriculum and syllabi under 2014, 2015 and 2015R Regulations of all UG Programmes and PG Programmes under 2015 Regulation.

(4). Approval of MBA Regulation 2017.

- The Academic Council approved the proposed MBA Regulation 2017 which incorporates Trimester pattern for students admitted from 2017 onwards.
- The Trimester regulation includes 6 trimesters with Professional core, Professional Elective and Open Elective courses in the curriculum subjected to a maximum of 105 credits. The assessment weightage will be 70 marks for Continuous Internal Evaluation (CIE) and 30 marks for Trimester End Examination (TEE).

Apart from approval of all the above points, the following points were discussed during the meeting.

- Our Chairman Thiru. C.Valliappa requested the industrial expert members to provide industrial training / Internships to the students.
- The University nominees Dr.D.Mohanlal, Dr.A.Elango and Dr.V.Kumar suggested to frame a Course outcome / Guidelines for evaluation and award of credits for Industrial training undergone by students.
- Vice chairman of SCT Thiru. Chocko Valliappa informed about the LCS (Lecture capturing system) and its effective implementation in Teaching Learning process in all departments.
- Dr. A.K.Pattabiraman, Head, Academy Interface program, Tata Consultancy Services, Chennai suggested to start twinning program as it is blooming nowadays.

- Mr.V.Jagadeesh , Vice President, Bosch group, Bengaluru had a detailed Skype interaction with the council members. He discussed about the challenges faced by the industry and the mechanization required for quality and safety in industry.
- Vice chairman of SCT Thiru. Thyagu Valliappa elaborated on how industry welcomes Internships at present.
- The University nominees and expert members appreciated the introduction of Trimester pattern for MBA Programme.
- Thiru. Chocko Valliappa informed about the AICTE – Adjunct faculty scheme for appointing resource persons from Industry in AICTE approved Technical Institutions. By this scheme, the strength of adjunct faculty shall not exceed 20% of the sanctioned strength of faculty at any time.
- Dr. G.N.Krishnamurthy, Principal, B.N.M Institute of Technology, Bangalore and Dr.A.K.Pattabiraman suggested to frame the curriculum and syllabus based on upcoming technology, so that it can sustain for the next 5-10 years.
- The council members also discussed about the semester end examination results of ODD and EVEN semester 2016-17 and suggested to improve the results percentage in future.

The meeting came to an end by 1.00p.m.

Dr.R.Shivakumar

Member Secretary/Academic Council

Dr.M.Usha

Principal & Chairperson/ Academic Council

Dr. M. USHA, M.E.,Ph.D.,
PRINCIPAL,
SONA COLLEGE OF TECHNOLOGY,
SALEM - 636 005.

Sona College of Technology, Salem 636 005.

(An Autonomous Institution)

Seventh Academic Council Meeting – Attendance-28/07/2017

Invited Distinguished Experts

1. **Shri. C. Valliappa, Chairman, Sona Groups of Educational Institutions**
2. **Shri. Chocko Valliappa, Vice-Chairman, Sona Groups of Educational Institutions**
3. **Shri. Thyagu Valliappa, Vice-Chairman, Sona Groups of Educational Institutions**

Academic Council Members

S.NO.	CATEGORY	DESIGNATION	NAME	Signature
1.	Chairperson	Principal	Dr. M.Usha	
2.	Director	Academics	Dr. C.V. Koushik	
3.		Industry Connect	Dr.V.Jayaprakash	
4.	Heads of the Departments	Director - MBA	Dr. Swarup K Mohanty	
5.		Director – MCA	Dr. G.M.Kadhar Nawaz	
6.		HOD – MECH	Dr.D.Senthilkumar	
7.		HOD – EEE	Dr. S. Padma	
8.		HOD – CSE	Dr. B. Sathiyabhama	
9.		HOD – IT	Dr. J. Akilandeswari	
10.		HOD – ECE	Dr. R.S.Sabeenian	
11.		HOD – Civil	Dr. R. Malathy	
12.		HOD – FT	Dr.G.Gunasekaran	
13.		HOD – First Year & Humanities	Dr. M. Renuga	
14.		HOD – Mathematics	Prof. S. Jayabharathi	
15.		HOD-Sciences	Dr.C.Shanthi	
16.		Controller of Examinations	Dr.S. Radjarejesri	
17.	Four Teachers of the college	1. Professor – EEE	Dr. S.Chandrasekar	
18.		2. Associate Professor – FT	Dr.M.B.Sampath	
19.		3. Professor – MCA	Dr.T.Padma	
20.		4. Professor – IT	Dr.V.Mohanraj	
21.	Four Experts representing all branches of Engineering	Principal, B.N.M Institute of Technology Bangalore.	Dr. G.N. Krishnamurthy	28/7/17
22.		Head, Academy Interface Program, TCS, Chennai.	Dr.A.K.Pattabiraman	
23.		Indian Machine Tools Manufacturers Association, Bengaluru.	Mr.Rajashekara	
24.		Robert Bosch Ltd, Bengaluru.	Mr.V.Jagadeesh	By Skype Interaction

25.	Three nominees of Anna University, Chennai	Professor and Head Department of Mechanical Engineering, Refrigeration and Air conditioning division, Anna University, Chennai-25.	Dr.D.Mohanlal	
26.		Professor and Head Department of Civil Engineering Thanthai Periyar Government Institute of Technology, Vellore-632 002.	Dr.V.Kumar	
27.		Principal Incharge, Professor and Head Department of Mechanical Engineering Alagappa Chettiar College of Engineering and Technology, Karaikudi – 630 003.	Dr.A.Elango	28/2/17
28	Placement	Advisor, Placement	Prof.B.Saravanen	
29.	Training	Training Cell Head	Dr. S. Anita	
30.	Member Secretary/ Academic Council (Nominated by the Principal)	Professor – EEE	Dr.R.Shivakumar	
31.	Immediate past-Member Secretary/ Academic Council	Professor – CSE	Dr.A.C.Kaladevi	28.2.2017
32.	QMS Coordinator	Associate Professor – IT	Dr.J.Jeba Emilyn	

Member Secretary /Academic council

(Dr.R.Shivakumar)

Chairperson / Academic Council & Principal

(Dr.M.Usha)

SONA COLLEGE OF TECHNOLOGY, SALEM

ANTI RAGGING COMMITTEE

MINUTES OF THE MEETING

13.4.2017

The second meeting of the anti-ragging committee for the academic year 2016 – 2017 was conducted on 12.4.2017 @ 4.30 pm in the Office conference hall. The following members were present:

1. Dr. M. Usha / Principal
2. Dr. T. Maruthavanan / Chemistry
3. Mr. V. Meenakshi sundharam / General Manager, Hostels
4. Dr. V. Balasubramanian / Physics
5. Prof. A. Sivapragasam / Mechanical
6. Dr. A. Murugesan / Civil
7. Dr. S. Sakthivel / CSE
8. Prof. A. Theetchenya / CSE
9. Mr. V. Venugopal / AO, SCT
10. Mr. C. Rajavignesh / Sr. Physical Director
11. Mr. Chinnadurai / FT
12. Mr. S.R. Keshav / I year Student
13. Dr. Anitha / Parent / I year student

In the meeting the following points were discussed.

1. The members of the anti ragging committee were briefed regarding the faculty interaction with hostel inmates and the surprise visits during lunch hours in the classrooms and corridors of first year block and MBA block to know about any untold incidents in the respective blocks.
2. The deployment of one security person from the college during night hours to monitor student's safety as one of the anti ragging measures taken by institution has been explained to the members of the committee.
3. The Security Officer was instructed that his security guards should monitor the student's movement inside the campus and inform to the Principal about any act of ragging if taking place.
4. It was informed to the members that surprise visits have been made to the boys hostels in the month of March and April 2017 by the first year HOD along with member secretary, anti-ragging committee and senior faculty members to monitor the activities of the students.
5. All the faculties, Residential Tutors and other hostel authorities were requested to ensure that there are no unwanted incidents related to ragging happening inside the hostel and safe guard all the first year students.

6. The member secretary informed to the members that there is no grievance mail received so far from the first students regarding ragging and the general manager – hostels also informed that there is no any untold incidence happened inside the hostels in this academic year.
7. The Principal informed that a letter (Ref:D.O. No. 1-15/2009 (ARC) pt. III dated 17th March 2017) has been received from the UGC regarding the steps to be taken by the Institutions against ragging and the availability of four short films and a documentary film to counsel students on ill effects of ragging in UGC website. She insisted to the member secretary to display those videos to the students to curbing the menace of ragging inside the campus.
8. The Principal and Chairman of Anti Ragging Committee appreciated that so far no ragging has taken place inside the premises in the past and requested all the members of the committee to ensure that it continues in this year also.

The meeting came to end by 5.30 pm.

T. Maruthavanan 13/04/17

Dr. T. Maruthavanan
Member Secretary, Anti ragging Committee

Dr. M. Usha
Chairman / Anti ragging Committee

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MINUTES OF WOMEN EMPOWERMENT CELL MEETING

SONA COLLEGE OF TECHNOLOGY

[Autonomous]

WOMEN EMPOWERMENT COMMITTEE

Date: 06.07.2016

Women Empowerment Committee meeting was held on 06.07.2016 to discuss the safety measures of girl students and calendar events for the academic year 2016-2017 in the Mechanical conference Hall at 3:00 p.m to 4:00 p.m.

Members Present in the Meeting:

- **Chief Coordinator**
- **Coordinators**
- **Department wise Counselors**
- **Students Office Bearers**

Minutes of the meeting

Report:

- Discussed the nominations of the students for the selection of office bearers through interview.
- Discussed the year planner for the academic year 2016 – 2017.
- Counselors were asked to identify the girl students those who require counseling.
- Discussed with the department wise counselors of women safety team, if there were any major issues faced by female students in the department and the remedy measures taken to rectify them.
- Counselors suggested that a workshop related to cancer awareness be conducted for girls.
- No major issues were reported by the Safety team.

COORDINATOR
Ms.A.Suhana Nafais & Ms. A.P Jaya Krishna

CHIEF COORDINATOR
Dr.M.Renuga

MINUTES OF GRIEVANCE REDRESSAL COMMITTEE MEETING

Sona College of Technology, Salem

Grievance Appeal Meeting

Minutes of the Meeting

A meeting for the following staff members was conducted on 19.8.2017 at 4.30 pm in the CV Raman Hall.

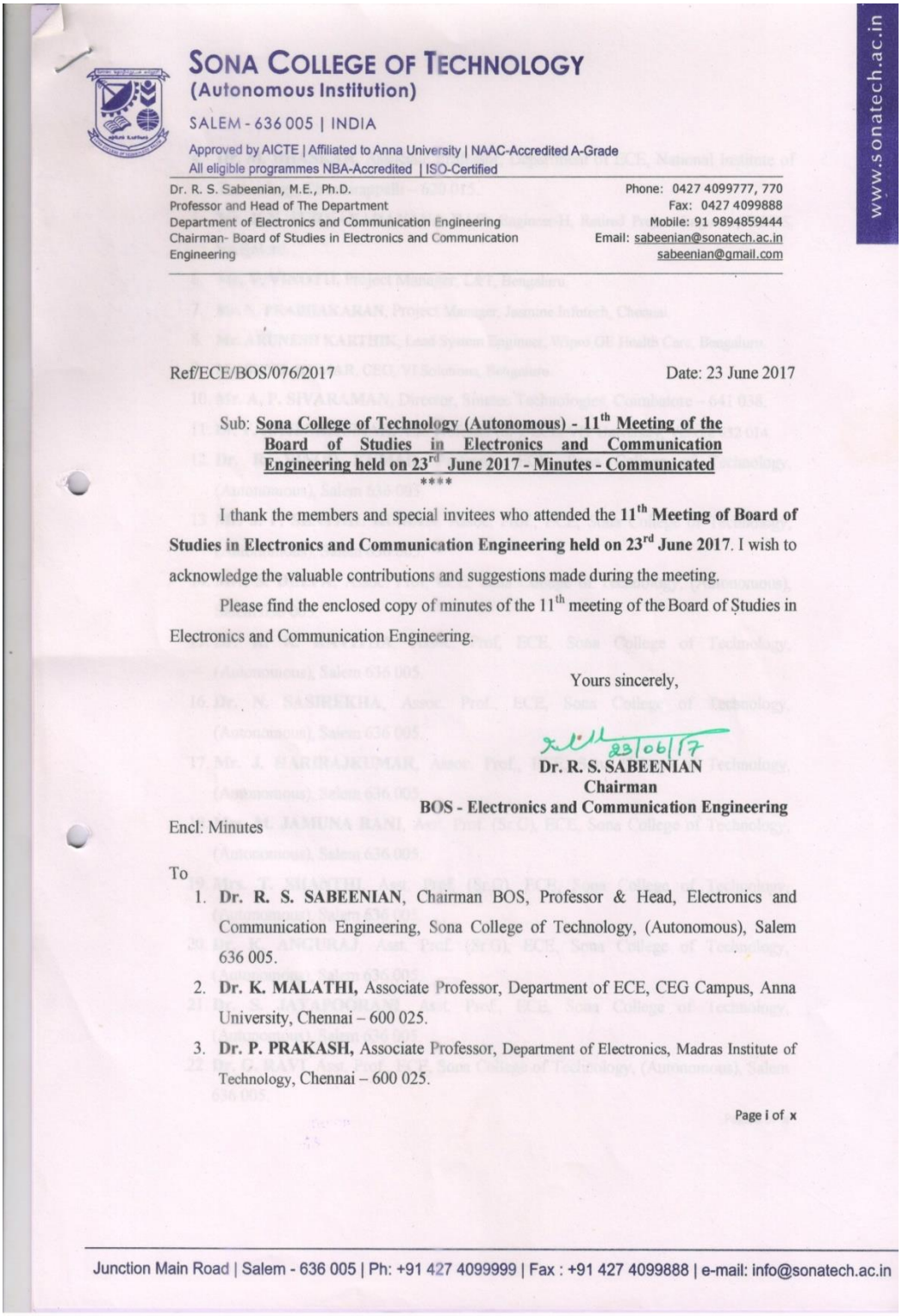
S.No	Category	Name	Designation
1	Chairman	Dr. M. Usha	Principal
2	Member Secretary & Convener	Dr. M. Renuga	HOD - First Year
3	Members	Dr. G. M. Kadhar Nawaz	Director – MCA
4		Dr. M. Selvaraj	Joint Director - MBA
5		Dr. D. Senthil Kumar	HOD - MECH
6		Dr. R. Malathy	HOD – CIVIL
7		Dr. K. R. Kashwan	HOD – ECE
8		Dr. S.B. Sathiyabhama	HOD – CSE
9		Dr. J. Akhilandeshwari	HOD – IT
10		Dr. G. Gunasekaran	HOD - FT
11		Dr. S. Padma	HOD - EEE
12		Dr. C. Shanthi	HOD – Sciences
13		Prof. S. Jayabharathi	HOD – Mathematics

- There was no grievance recorded.
- The members discussed the formation of a committee for the benefit of SC /ST students and staff.
- It was decided to make Dr. C. Shanthi as the Member Secretary & Convener of the committee. (SC/ST Committee)

The meeting came to an end at 5.00 pm

Member Secretary & Convener

MINUTES OF BOS MEETING – DEPARTMENT OF ECE



SONA COLLEGE OF TECHNOLOGY
(Autonomous Institution)
SALEM - 636 005 | INDIA
Approved by AICTE | Affiliated to Anna University | NAAC-Accredited A-Grade
All eligible programmes NBA-Accredited | ISO-Certified

Dr. R. S. Sabeenian, M.E., Ph.D.
Professor and Head of The Department
Department of Electronics and Communication Engineering
Chairman- Board of Studies in Electronics and Communication Engineering

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Ref/ECE/BOS/076/2017 Date: 23 June 2017

Sub: **Sona College of Technology (Autonomous) - 11th Meeting of the Board of Studies in Electronics and Communication Engineering held on 23rd June 2017 - Minutes - Communicated**

****

I thank the members and special invitees who attended the **11th Meeting of Board of Studies in Electronics and Communication Engineering held on 23rd June 2017**. I wish to acknowledge the valuable contributions and suggestions made during the meeting.

Please find the enclosed copy of minutes of the 11th meeting of the Board of Studies in Electronics and Communication Engineering.

Yours sincerely,

23/06/17

Dr. R. S. SABEENIAN
Chairman
BOS - Electronics and Communication Engineering

Encl: Minutes

To

1. **Dr. R. S. SABEENIAN**, Chairman BOS, Professor & Head, Electronics and Communication Engineering, Sona College of Technology, (Autonomous), Salem 636 005.
2. **Dr. K. MALATHI,** Associate Professor, Department of ECE, CEG Campus, Anna University, Chennai – 600 025.
3. **Dr. P. PRAKASH,** Associate Professor, Department of Electronics, Madras Institute of Technology, Chennai – 600 025.

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4. **Dr. M. BHASKAR,** Associate Professor, Department of ECE, National Institute of Technology, Tiruchirappalli – 620 015.

5. **Mr. K.N. SURYANARAYANA RAO,** Engineer-H, Retired Project Engineer, IRNSS, Bangalore.
6. **Mr. V. VINOTH,** Project Manager, L&T, Bengaluru.
7. **Mr. N. PRABHAKARAN**, Project Manager, Jasmine Infotech, Chennai.
8. **Mr. ARUNESH KARTHIK**, Lead System Engineer, Wipro GE Health Care, Bengaluru.
9. **Mr. SUNIL KUMAR**, CEO, VI Solutions, Bengaluru.
10. **Mr. A. P. SIVARAMAN,** Director, Sinetec Technologies, Coimbatore – 641 038.
11. **Dr. V. RAJESHKUMAR,** Asst. Professor (Sr.), ECE, VIT University, Vellore 632 014.
12. **Dr. R. VINOD KUMAR**, Professor, ECE, Sona College of Technology, (Autonomous), Salem 636 005.
13. **Mr. J. P. SENTHIL KUMAR**, Assoc. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.
14. **Mrs. S. DEEPA**, Assoc. Prof, ECE, Sona College of Technology, (Autonomous), Salem 636 005.
15. **Dr. K. R. KAVITHA**, Assoc. Prof, ECE, Sona College of Technology, (Autonomous), Salem 636 005.
16. **Dr. N. SASIREKHA**, Assoc. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.
17. **Mr. J. HARIRAJKUMAR**, Assoc. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.
18. **Mrs. M. JAMUNA RANI**, Asst. Prof. (Sr.G), ECE, Sona College of Technology, (Autonomous), Salem 636 005.
19. **Mrs. T. SHANTHI**, Asst. Prof. (Sr.G), ECE, Sona College of Technology, (Autonomous), Salem 636 005.
20. **Dr. K. ANGURAJ**, Asst. Prof. (Sr.G), ECE, Sona College of Technology, (Autonomous), Salem 636 005.
21. **Dr. S. JAYAPOORANI**, Asst. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.
22. **Dr. G. RAVI**, Asst. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.
23. **Mrs. P. PRIYA**, Asst. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.
24. **Mrs. S. VIJAYALAKSHMI**, Asst. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.

25. **Mrs. K. MANJU**, Asst. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.
26. **Mrs. M. SENTHIL VADIVU**, Asst. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.

Special invitees:

27. **THE CHAIRMAN**, Sona Group of Institutions, Salem - 636 005.
28. **THE VICE CHAIRMEN,** Sona Group of Institutions, Salem - 636 005.
29. **THE DIRECTOR ACADEMICS**, Sona College of Technology, (Autonomous), Salem - 636 005.
30. **THE DIRECTOR INDUSTRY CONNECT,** Sona College of Technology, (Autonomous), Salem - 636 005.
31. **THE PRINCIPAL**, Sona College of Technology, (Autonomous), Salem - 636 005.
32. **Dr. S. RADJAREJESRI**, Controller of Examinations (COE), Sona College of Technology, (Autonomous), Salem 636 005.
33. **Dr. R. SHIVAKUMAR,** Member Secretary, Academic Council, Sona College of Technology, (Autonomous), Salem 636 005.
34. **THE VICE-CHANCELLOR**, Anna University, Chennai, only for intimation.
35. **THE REGISTRAR**, Anna University, Chennai, only for intimation.

SONA COLLEGE OF TECHNOLOGY, (AUTONOMOUS), SALEM-636005

MINUTES OF THE 11th MEETING OF THE BOARD OF STUDIES IN ELECTRONICS AND COMMUNICATION ENGINEERING HELD ON 23rd June 2017, AT 11.00 A.M.

BOS MEMBERS PRESENT:

S.NO	NAME	DESIGNATION
1.	Dr. R. S. Sabeenian	Chairman BOS in ECE / Professor & HOD/ ECE, SCT
2.	Dr. K. Malathi	Associate Professor Department of ECE, CEG, Campus, Anna University, Chennai - 600025
3.	Dr. P. Prakash	Associate Professor Department of Electronics, Madras Institute of Technology, Chennai - 600044
4.	Dr. M. Bhaskar	Associate Professor, Department of ECE, National Institute of Technology, Tiruchirappalli -620015.
5.	Mr. K.N. Suryanarayana Rao	Engineer-H, Retired Project Director, IRNSS, Bangalore
6.	Mr. A. P. Sivaraman	Director Sinetec Technologies, Coimbatore.
7.	Dr. V. Rajeshkumar	Assistant Professor(Sr.) School of SENSE VIT University, Vellore – 632 014.
8.	Dr. R. Vinod Kumar	Professor
9.	Mr. J. P. Senthil Kumar	Assoc. Professor
10.	Mrs. S. Deepa	Assoc. Professor
11.	Dr. K. R. Kavitha	Assoc. Professor
12.	Dr. N. Sasirekha	Assoc. Professor
13.	Mr. J. Harirajkumar	Assoc. Professor
14.	Mrs. M. Jamuna Rani	Assistant Professor (Sr. G)
15.	Mrs. T. Shanthi	Assistant Professor (Sr. G)
16.	Dr. K. Anguraj	Assistant Professor (Sr. G)
17.	Dr. S. Jayapoorani	Asst. Professor
18.	Dr. G. Ravi	Asst. Professor
19.	Mrs. P. Priya	Asst. Professor

20.	Mrs. S. Vijayalakshmi	Asst. Professor
21.	Mrs. K. Manju	Asst. Professor
22.	Mrs. M. Senthil Vadivu	Asst. Professor
23.	Ms. B. Kaviya	Student
24.	Ms. G. Anusuya	Student
25.	Ms. M. Priyanka	Student
26.	Ms. S. Soundharya	Student
27.	Ms. G. Devi Meenakshi	Student
28.	Mr. M. S. Nithish	Student
29.	Mr. S. Sriram	Student

OTHER SPECIAL INVITEES PRESENT

S.NO	NAME	DESIGNATION
1.	Dr. V. Jayaprakash	Director Industry Connect, SCT
2.	Dr. M. Usha	Principal, SCT
3.	Dr. S. Radjarejesri	Controller of Examinations (COE), SCT
4.	Dr. R. Shivakumar	Member Secretary, Academic Council, SCT
5.	Mr. S. Vijay Peter	Assistant Professor (Sr. G), Department of Mathematics, SCT
6.	Ms. K. Deiwakumari	Assistant Professor, Department of Mathematics, SCT
7.	Mr. B. Venkatesh	Assistant Professor, Department of Mathematics, SCT

11.1 CONSIDERED THE CONFIRMATION OF THE MINUTES OF THE 10th MEETING HELD ON 02.06.2016

RESOLVED to confirm the minutes of the 10th meeting of the Board of Studies in Electronics and Communication Engineering held on 02.06.2016 that was communicated to the members.

11.2 AN AMENDMENT HAS BEEN RECOMMENDED IN THE CURRICULUM OF B.E ECE REGULATION 2015. MINOR CHANGES IN THE CURRICULUM OF B.E. ECE REGULATION 2015R HAS BEEN CONSIDERED (3rd to 8th SEMESTER). IN REGULATION 2015 THE SYLLABUS OF COURSES OF 5th AND 6th HAS BEEN APPROVED BY THE BOARD. IN REGULATION 2015R THE SYLLABUS OF 3rd and 4th SEMESTER (INCLUDING LIST OF EXPERIMENTS AND SOFTWARE TOOLS FOR THE LABORATORY COURSE) HAS BEEN APPROVED BY THE BOARD.

RESOLVED to note that the curriculum committees consisting of the following members have deliberated and formulated curriculum and syllabus for **B.E. ELECTRONICS AND COMMUNICATION ENGINEERING (**3rd to 8th Semester):

(i) **Dr. R. S. SABEENIAN**, Chairman BOS, Professor & Head, Electronics and Communication Engineering, Sona College of Technology, (Autonomous), Salem 636 005.

(ii) **Dr. R. VINOD KUMAR**, Professor, ECE, Sona College of Technology, (Autonomous), Salem 636 005.

(iii) **Mr. J. P. SENTHIL KUMAR**, Assoc. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.

(iv) **Mrs. S. DEEPA**, Assoc. Prof., ECE , Sona College of Technology, (Autonomous), Salem 636 005.

(v) **Dr. K. R. KAVITHA**, Assoc. Prof, ECE, Sona College of Technology, (Autonomous), Salem 636 005.

(vi) **Dr. N. SASIREKHA**, Assoc. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.

(vii) **Mr. J. HARIRAJKUMAR**, Assoc. Prof., ECE, Sona College of Technology,

(Autonomous), Salem 636 005.

(viii) **Mrs. M. JAMUNA RANI**, Asst. Prof. (Sr.G), ECE, Sona College of Technology, (Autonomous), Salem 636 005.

(ix) **Mrs. T. SHANTHI**, Asst. Prof. (Sr.G), ECE, Sona College of Technology, (Autonomous), Salem 636 005.

(x) **Dr. K. ANGURAJ**, Asst. Prof. (Sr.G), ECE, Sona College of Technology, (Autonomous), Salem 636 005.

(xi) **Dr. S. JAYAPOORANI**, Asst. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.

(xii) **Dr. G. RAVI**, Asst. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.

(xiii) **Mrs. P. PRIYA**, Asst. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.

(xiv) **Mrs. S. VIJAYALAKSHMI**, Asst. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.

(xv) **Mrs. K. MANJU**, Asst. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.

(xvi) **Mrs. M. SENTHIL VADIVU**, Asst. Prof., ECE, Sona College of Technology, (Autonomous), Salem 636 005.

11.2.1 The course Analog Communication Systems in the fifth semester for the regulation 2015, transmitters and receivers for AM and FM may be included.

11.2.2 The course Transmission Lines and Waveguides in the fifth semester for the regulation 2015, introduction to planar transmission line and microstrip antenna may be included.

11.2.3 The course Digital Signal Processing in the fifth semester for the regulation 2015, TMS320C55 processor may be included.

11.2.4 The course Microprocessor & Microcontroller in the fifth semester for the regulation 2015, latest peripherals and buses may be included in unit 4 or 5.

11.2.5 All the basic level laboratory courses may be completed within fifth semester.

11.2.6 The course Microprocessor & Microcontroller Laboratory in the fifth semester for the regulation 2015, the list of experiments may start with experiments related to 8086 and end with microcontroller interfacing. There may be 5 experiments related to microprocessor, 5 related to microcontroller and 2 or 3 related to interfacing, with a total of 12 or 13 experiments.

11.2.7 The course Antenna and Wave Propagation in the sixth semester regulation 2015, each unit tittle has to be checked may be renamed as broadband antennas, frequency dependent antennas etc.,

11.2.8 The course Antenna and Wave Propagation in the sixth semester regulation 2015, the book authored by Balanis may be brought under list of text books and the book authored by K. D. Prasad may be brought under references.

11.2.9 The course Quantitative Aptitude & Reasoning in the sixth semester regulation 2015 can be given as a one credit course for each semester from 3rd to 6th of Regulation 2015R.

11.2.10 A one credit course on "Comprehensive Review" may be introduced in 7th Semester of Regulation 2015R.

11.2.11 The course, Digital Communication in the sixth semester regulation 2015, measurements experiments may be included.

11.2.12 The course Communication Laboratory in the sixth semester regulation 2015, kit experiments are also to be included in the syllabus.

11.2.13 The course Mini Project in the sixth semester regulation 2015, the Projects related to Embedded Systems vendor specific boards may be removed.

11.2.14 The professional elective in the VIII semester of regulation 2015 and 2015R may be shifted to previous semesters thereby enabling the students to do internship/project in the industry.

11.2.15 The course Disaster Management may be removed from seventh semester and may be brought in professional elective list as one management related course is sufficient in curriculum in the regulation 2015 and 2015R.

11.2.16 The professional electives related to Communication, VLSI Design, etc., may be in a group instead of random distribution.

11.2.17 Among the list of professional electives in the regulation 2015R, the courses Optical Communication, VLSI Design, Embedded Systems may be shifted to core.

11.2.18 Transforms are already available in the course Signals and Systems, hence it may be removed in the course Transforms and Linear Algebra in regulation 2015R.

11.2.19 The course Measurements and Instrumentation may be shifted from core to professional electives list. It may be replaced with Digital Signal Processing in the regulation 2015R.

11.2.20 The Course Digital Signal Processing Lab may be shifted from V to semester IV.

11.2.21 The Course Digital Communication and Communication Systems lab may be shifted from VI to V semester.

11.2.22 The course VLSI Design may be moved to fifth semester in the Regulation 2015R.

11.2.23 The title for the course Smart Structures and Sensors in open elective may be changed in the regulation 2015R.

11.2.24 The title for the course Medical Electronics in open elective may be replaced as Biomedical Instrumentation and Measurements in the regulation 2015R.

11.2.25 Latest edition books to be updated for the all courses.

11.2.26 Review and comments were received from industry experts for the courses. The details of which is given below.

- Signals and System by Mr. Prabakaran, Project Manager, Jasmin Infotech, Chennai.
- Digital System Design by Mr.Vinoth, Project Manager, L&T, Bengaluru.
- Telecommunication Switching Network by Mr. M. Karthikeyan, Lead Engineer, HCL, Chennai.
- Computer Networks by Mr. M. Madhankumar, Senior Analyst, Scope well, Chennai.
- Satellite Communication by Mr. K. P. Harsha Prasanna, CEO, Salieabs Electronics Engineers LLP, Salem.

- Digital Communication by Mr. R. Arunkumar, Technical Lead, HP Private Ltd.
- Communication Laboratory by Mr. R. Arunkumar, Technical Lead, HP Private Ltd.
- Engineering Electromagnetics by Dr. Simarjeet S. Saini, CTO Nanolytix.
- Antenna & Wave Propagation by Mr. V. Anbalagan, SDE(CRM), BSNL, Salem.
- Analog Communication Systems by Mr. A. P. Sivaraman, Director, Sinetec Technologies, Coimbatore.
- Communication Laboratory by Mr. A. P. Sivaraman, Director, Sinetec Technologies, Coimbatore.
- C++ with Data Structures by Mr. Naveen Karthikeyan, Technical Lead, Intel Technology India, PVT, Bengaluru.
- C++ Laboratory by Mr. Naveen Karthikeyan, Technical Lead, Intel Technology India, PVT, Bengaluru.
- Quantitative Aptitude and Reasoning by Mr Prabhu Manikandan, Director, Live Wire, Salem
- Microprocessor and Microcontrollers by Ms. M.S. Jayachandra Aradhya, Chief Executive, Silicon Micro systems.

28/06/17

Dr. R. S. Sabeenian
Chairman
BOS - Electronics and Communication Engineering

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THE 11th MEETING OF THE BOARD OF STUDIES IN ELECTRONICS AND COMMUNICATION ENGINEERING

Action Taken

Based on the input from expert committee members the following actions have been taken.

11.2.1 In the fifth semester of the regulation 2015, transmitters and receivers for AM and FM has been included in the course Analog Communication Systems.

11.2.2 The course Transmission Lines and Waveguides is found to have a lengthy syllabus. So the suggested topic planar transmission lines and micro strip antenna theory can be included in the Antenna and Wave Propagation.

11.2.3. The topic TMS320C55 processor in the course Digital Signal Processing is to be included in the next curriculum.

11.2.4 In the course Microprocessor & Microcontroller present in the fifth semester of regulation 2015, latest peripherals and buses are to be included in unit 4 or 5.

11.2.5 All the basic level laboratory courses completed within fifth semester itself.

11.2.6 For the course, Microprocessor & Microcontroller Laboratory in the fifth semester of regulation 2015, the list of experiments are found to be jammed up with Microprocessor and Microcontroller. For the sake of clarity, 5 experiments related to microprocessor, 5 related to microcontroller and 2 or 3 related to interfacing has been classified.

11.2.7 For the course, Antenna and Wave Propagation in the sixth semester, Regulation 2015, each unit title has to be checked and renamed as wide band antennas, antenna measurements and radio wave propagation.

11.2.8 For the course Antenna and Wave Propagation in the sixth semester Regulation 2015, the book Antenna Theory: Analysis and Design by Constantine A. Balanis has been brought under list of text books and the book authored by Antenna and Wave Propagation by K. D. Prasad has been brought under references.

11.2.9 The Course, Quantitative Aptitude & Reasoning in the sixth semester of Regulation 2015 has been removed and the syllabus has been equally divided and introduced as a one credit courses termed as “Soft skills and Aptitude I/II/III/IV” for each semester from 3 to 6 in regulation 2015R.

11.2.10 A one credit course on “Comprehensive Review” introduced in the 7th Semester of Regulation 2015R.

11.2.11 For the course, Digital Communication in the sixth semester regulation 2015, measurement experiments are also included.

11.2.12 For the course Communication Laboratory in the sixth semester regulation 2015, instead of kit experiments in digital communication discrete components based experiments have been amended.

11.2.13 For the course Mini Project in the sixth semester regulation 2015, the projects related to embedded systems carried out on vendor specific boards have been removed.

11.2.14 The professional electives in the VIII semester regulation 2015 and 2015R have been shifted to VII semesters thereby paving way for students to do internship/projects in the industry during the VIII Semester.

11.2.15 The course Disaster Management may be removed from seventh semester and brought in professional elective list as one management related course is sufficient in curriculum in the regulation 2015 and 2015R.

11.2.16 The professional electives are grouped into different verticals (bucketing system). More than 25 elective subjects have been included in the list.

11.2.17 In the regulation 2015R, the courses Optical and Fiber Communication, VLSI Design, Embedded Systems have been shifted from professional elective to core.

11.2.18 The syllabus of Transforms and Linear Algebra in regulation 2015R has been updated.

11.2.19 The course Measurements and Instrumentation may be shifted from core to professional electives list. It may be replaced with Digital Signal Processing in the regulation 2015R.

11.2.20 The course Digital Signal Processing Lab has been shifted from V to semester IV.

11.2.21 The course Digital Communication and Communication Systems lab shifted from VI to V semester.

11.2.22 The course VLSI Design has been introduced to fifth semester in the regulation 2015R.

11.2.23 In the open elective for course Smart Structures and Sensors, the course title modified in the regulation 2015R as "Sensors and Smart Structures Technologies".

11.2.24 In the open elective for the course Medical Electronics, the course tittle replaced as "Biomedical Instrumentation and Measurements" in the regulation 2015R.

11.2.25 Latest edition of books updated for the all courses.

11.2.26 The Syllabus for 2015 Regulation (V Sem and VI Sem), 2015R Regulation (III Sem and IV Sem) updated based on the comments received from industry experts for the courses.

28/6/17

SONA COLLEGE OF TECHNOLOGY (Autonomous), SALEM – 636 005.

THE BOARD OF STUDIES IN ELECTRONICS AND COMMUNICATION ENGINEERING

23rd JUNE 2017, AT 11.00 A.M.

11th BOS - ECE- MEETING – ATTENDANCE SHEET

MEMBERS PRESENT: **Date:** 23.06.2017

S.NO	NAME	DESIGNATION	SIGNATURE
1.	Dr. R. S. Sabeenian	Professor & Head	23/06/17
2.	Dr. R. Vinod Kumar	Professor	23/6/17
3.	Mr. J. P. Senthil Kumar	Asso. Professor	23/6/17
4.	Ms. S. Deepa	Asso. Professor	23/6/17
5.	Dr. K. R. Kavitha	Asso. Professor	
6.	Ms. N. Sasirekha	Asso. Professor	23/6/17
7.	Mr. J. Harirajkumar	Asso. Professor	
8.	Ms. M. Jamuna Rani	Assistant Professor (Sr.G)	
9.	Ms. T. Shanthi	Assistant Professor (Sr.G)	
10.	Dr. K. Anguraj	Assistant Professor (Sr.G)	
11.	Dr. S. Jayapoorani	Asst. Professor	
12.	Dr. G. Ravi	Asst. Professor	
13.	Ms. P. Priya	Asst. Professor	23/6/17
14.	Ms. S. Vijayalakshmi	Asst. Professor	
15.	Ms. K. Manju	Asst. Professor	
16.	Ms. M. Senthil Vadivu	Asst. Professor	
17.	Dr. M. Bhaskar	Associate Professor, Department of ECE, National Institute of Technology, Tiruchirappalli -620015.	23/6/2017
18.	Dr. P. Prakash	Associate Professor Department of Electronics, Madras Institute of Technology, Chennai - 600044	23/6/17
19.	Dr. K. Malathi	Associate Professor Department of ECE, CEG, Campus, Anna University, Chennai - 600025	23/6/17.

20.	Mr. K. N. Suryanarayana Rao	Engineer-H, Retired Project Director, IRNSS, Bengaluru	
21.	Mr. V. Vinoth	Project Manager L&T, Bengaluru	
22.	Mr. N. Prabhakaran	Project Manager Jasmine Infotech, Chennai	
23.	Mr. Arunesh Karthik	Lead System Engineer Wipro GE Health Care, Bengaluru	
24.	Mr. A. P. Sivaraman	Director Sinetec Technologies, Coimbatore.	
25.	Mr. Sunil Kumar	CEO VI Solutions, Bengaluru	
26.	Dr. V. Rajeshkumar	Assistant Professor (Sr.) School of SENSE VIT University, Vellore – 632 014.	
27.	Ms. B. Kaviya	Student	
28.	Ms. G. Anusuya	Student	
29.	Ms. M. Priyanka	Student	
30.	Ms. S. Soundharya	Student	
31.	Ms. G. Devi Meenakshi	Student	
32.	Mr. M. S. Nithish	Student	
33.	Mr. S. Sriram	Student	

23/06/17

Dr. R. S. Sabeenian

CHAIRMAN/ BOS ECE

SONA COLLEGE OF TECHNOLOGY (AUTONOMOUS), SALEM – 636005

DEPARTMENT OF ECE

BE – ELECTRONICS AND COMMUNICATION ENGINEERING - REGULATION 2015(REVISED) (CBCS BASED)

CURRICULUM

SEMESTER - III

S. No.	Course Code	Course Name	Hours / Week				
			L	T	P	M	C
Theory							
1.		Transforms and Linear Algebra	3	2	0	100	4
2.		Electronic Devices	3	0	0	100	3
3.		Network Analysis and Synthesis	3	2	0	100	4
4.		Digital System Design	3	0	0	100	3
5.		Signals and Systems	3	2	0	100	4
		Seminar	0	0	1	0	0
		Library	0	0	1	0	0
Practical							
6.		Electronic Devices Laboratory	0	0	2	100	1
7.		Digital Laboratory	0	0	2	100	1
8.		English Laboratory	0	0	4	100	2
9.		Soft Skills and Aptitude - I	0	0	2	100	1
Total			**15**	**6**	**12**	**900**	**23**

SEMESTER - IV

S. No.	Course Code	Course Name	Hours / Week				
			L	T	P	M	C
Theory							
1.		Probability and Stochastic Processes	3	2	0	100	4
2.		Engineering Electromagnetics	3	2	0	100	4
3.		Electronic Circuits	3	0	0	100	3
4.		Linear Integrated Circuits	3	0	0	100	3
5.		Digital Signal Processing	3	2	0	100	4
6.		Analog Communication Systems	3	0	0	100	3
		Library	0	0	1	0	0
		Seminar	0	0	2	0	0
Practical							
7.		Linear Integrated Circuits Laboratory	0	0	2	100	1
8.		Electronic Circuits and Simulation Laboratory	0	0	2	100	1
9.		Digital Signal Processing Laboratory	0	0	2	100	1
10.		Soft Skills and Aptitude - II	0	0	2	100	1
Total			**18**	**6**	**11**	**1000**	**25**

SEMESTER – V

S. No.	Course Code	Course Name	Hours / Week				
			L	T	P	M	C
Theory							
1.		Digital Communication	3	0	0	100	3
2.		Transmission Lines and Waveguides	3	2	0	100	4
3.		Microprocessors and Microcontroller	3	0	0	100	3
4.		C++ with Data Structures	3	0	0	100	3
5.		Automatic Control Systems	3	2	0	100	4
6.		VLSI Design	3	0	0	100	3
	-	Library	0	0	1	0	0
	-	Seminar	0	0	2	0	0
Practical							
7.		Microprocessors and Microcontroller Laboratory	0	0	2	100	1
8.		VLSI Laboratory	0	0	2	100	1
9.		Communication Laboratory	0	0	4	100	2
10.		Soft Skills and Aptitude - III	0	0	2	100	1
		Total	**18**	**4**	**13**	**1000**	**25**

SEMESTER – VI

S. No.	Course Code	Course Name	Hours / Week				
			L	T	P	M	C
Theory							
1.		Antenna and Wave Propagation	3	0	0	100	3
2.		Digital Image Processing	3	0	0	100	3
3.		Professional Ethics and Human Values	3	0	0	100	3
4.		Professional Elective - I	3	0	0	100	3
5.		Professional Elective - II	3	0	0	100	3
6.		Open Elective - I	3	0	0	100	3
		Library	0	0	1	0	0
		Group Discussion	0	0	2	0	0
		Internship / Industrial Training	0	0	0	0	0
Practical							
7.		Digital Image Processing Laboratory	0	0	2	100	1
8.		C++ Laboratory	0	0	4	100	2
9.		Soft Skills and Aptitude - IV	0	0	2	100	1
10.		*Mini Project	0	0	4	100	2
		Total	**18**	**0**	**15**	**1000**	**24**

Note-1: Students are allowed to undergo 2,4 or 6 weeks of internship/ industrial training at research organizations / reputed academic institutions / reputed industries between semesters 6 and 7 and semesters 7 and 8 during the summer/winter vacation and can earn 1,2 or 3 credits respectively in lieu of industrial training**.** The industry/organization is to be selected with the approval of the Department Consultative Committee. The internship has to be taken on a continuous basis for the periods mentioned and in the same organization or organizations that are similar to those of previous internship(s).

A student earning three credits in internship shall be permitted to drop one professional elective/open elective. However, if the number of credits earned is only 1 or 2, these credits shall not be considered for dropping a course or for classification of the degree, but will be indicated in the mark sheet.

Note-2: *List of mini projects is given at the end of document.

SEMESTER - VII

S. No.	Course Code	Course Name	Hours / Week				
			L	T	P	M	C
Theory							
1.		Embedded Systems	3	0	0	100	3
2.		Optical Fiber Communication	3	0	0	100	3
3.		Microwave Engineering	3	0	0	100	3
4.		Professional Elective - III	3	0	0	100	3
5.		Professional Elective - IV	3	0	0	100	3
6.		Open Elective - II	3	0	0	100	3
		Library	0	0	1	0	0
		Internship / Industrial Training	0	0	0	0	0
Practical							
7.		Microwave and Optical Laboratory	0	0	4	100	2
8.		Embedded Systems Laboratory	0	0	4	100	2
9.		Comprehensive Review	0	0	2	100	1
		Total	**18**	**0**	**11**	**900**	**23**

Note-3: Students are allowed to undergo 2,4 or 6 weeks of internship/ industrial training at research organizations / reputed academic institutions / reputed industries between semesters 6 and 7 and semesters 7 and 8 during the summer/winter vacation and can earn 1,2 or 3 credits respectively in lieu of industrial training**.** The industry/organization is to be selected with the approval of the Department Consultative Committee. The internship has to be taken on a continuous basis for the periods mentioned and in the same organization or organizations that are similar to those of previous internship(s).

A student earning three credits in internship shall be permitted to drop one professional elective/open elective. However, if the number of credits earned is only 1 or 2, these credits shall not be considered for dropping a course or for classification of the degree, but will be indicated in the mark sheet.

SEMESTER - VIII

S. No.	Course Code	Course Name	Hours / Week				
			L	T	P	M	C
Practical							
1.		Major Project	0	0	20	100	10
2.		Internship / Industrial Training	0	0	0	0	0
		Total	**0**	**0**	**20**	**100**	**10**

Note-4: Students are allowed to undergo 2,4 or 6 weeks of internship/ industrial training at research organizations / reputed academic institutions / reputed industries between semesters 6 and 7 and semesters 7 and 8 during the summer/winter vacation and can earn 1,2 or 3 credits respectively in lieu of industrial training**.** The industry/organization is to be selected with the approval of the Department Consultative Committee. The internship has to be taken on a continuous basis for the periods mentioned and in the same organization or organizations that are similar to those of previous internship(s).

A student earning three credits in internship shall be permitted to drop one professional elective/open elective. However, if the number of credits earned is only 1 or 2, these credits shall not be considered for dropping a course or for classification of the degree, but will be indicated in the mark sheet

LIST OF PROFESSIONAL ELECTIVES

S. No.	Course Code	Course Name	Hours / Week				
			L	T	P	M	C
1.		Satellite Communication	3	0	0	100	3
2.		Wireless Communication	3	0	0	100	3
3.		Cellular and Mobile Communication	3	0	0	100	3
4.		Cellular Technologies and Applications	3	0	0	100	3
5.		Modern Radio Communication	3	0	0	100	3
6.		Statistical Theory of Communication	3	0	0	100	3
7.		High Speed Network	3	0	0	100	3
8.		Computer Networks	3	0	0	100	3
9.		Wireless Networks	3	0	0	100	3
10.		Network Security	3	0	0	100	3
11.		Advanced Digital Signal Processing	3	0	0	100	3
12.		Speech Processing	3	0	0	100	3
13.		Artificial Neural Network	3	0	0	100	3
14.		Pattern Recognition	3	0	0	100	3
15.		Artificial Intelligence	3	0	0	100	3
16.		Advanced Microprocessors	3	0	0	100	3
17.		FPGA based System Design	3	0	0	100	3
18.		Computer Architecture	3	0	0	100	3
19.		Measurement and Instrumentation	3	0	0	100	3
20.		Bio-Medical Instrumentation	3	0	0	100	3
21.		Virtual Instrumentation	3	0	0	100	3
22.		RADAR Engineering	3	0	0	100	3
23.		RF MEMS	3	0	0	100	3
24.		Electromagnetic Interference and Electromagnetic Compatibility	3	0	0	100	3
25.		Antennas for Wireless Application	3	0	0	100	3
26.		Nano Electronics	3	0	0	100	3

27.		Disaster Management	3	0	0	100	3
28.		Numerical Methods for Engineering Computation	3	0	0	100	3

LIST OF OPEN ELECTIVE

S. No.	Course Code	Course Name	Hours / Week				
			L	T	P	M	C
1.		Electronics and Microprocessors -	3	0	0	100	3
2.		Embedded and Real Time Systems	3	0	0	100	3
3.		Analog and Digital Communication	3	0	0	100	3
4.		Signal and Image Processing	3	0	0	100	3
5.		Sensors and Smart Structures Technologies	3	0	0	100	3
6.		Biomedical Instrumentation and Measurements	3	0	0	100	3
7.		Multimedia Communication	3	0	0	100	3

Note-5: A minimum of 25 students must register for the open elective to be offered in current semester. The registration must be done by last working day of previous semester. Status of registration and open elective offerings will be communicated to the Academic Council and COE before beginning of the current semester.

LIST OF MINI PROJECTS

S. No.	Mini Project* - the following topics but not limited to
1.	Electrical Circuits
2.	Digital System Design
3.	Digital Signal Processing
4.	Digital Image Processing
5.	Communication Systems and Networks
6.	Wireless Networks
7.	Microprocessor & Embedded Systems
8.	Analog System Design
9.	VLSI Design
10.	RF Design
11.	IOT based Engineering Solutions
12.	Embedded Engineering Solutions

Note-6: *Students must choose any one Mini Project out of above listed areas or similar areas of interest to industry / engineering solutions.

MINUTES OF R & D MEETING

Ref. No.: PRL/R&D /DST/2017-18/421 **Date:**23.08.2017

To

All Directors, Principal, Dean (R&D), HoDs and R&D Centre Heads

Minutes of Centre Heads & R&D Coordinators Meeting held on 21st August

R&D Review Meeting with Principal, Dean (R&D), Centre Heads and R&D coordinators was held on 18.08.2017 (Monday) at Mechanical Conference Hall of Sona College of Technology between 11.00 am and 12.00 pm. The meeting was headed by our Principal and Dean(R&D).

Members Present

1. Dr. M. Usha – Principal
2. Dr.S.Chandraseker – Dean (R&D)
3. Dr. B. Sathiyabhama, HOD/CSE
4. Dr.Senthil Kumar - HoD/Mech
5. Dr.M.Selvaraj – Joint Director/ MBA
6. Dr.J.SenthilKumar - Professor/IT
7. Dr.S.Suresh – Professor / CIVIL
8. Dr.M.Umahankar-Assistant Professor/MCA
9. Dr.D.Raja - Associate Professor /FT
10. Dr.G.Gunasekaran - HoD/FT
11. Dr.R.Mohan – Professor /MECH
12. Dr.C.Saravanan - Assistant Professor/Science
13. Dr.M.Raja - Assistant Professor/Science
14. Dr.T.Maruthavanan - Assistant Professor/Science
15. Dr.A.Jagadeeshwarn - Assistant Professor/EEE
16. Prof.J.P.Senthilkumar - Assistant Professor/ECE
17. Dr.Arulmozhiyal – Professor/ EEE
18. Dr.J.Jayanthi - Professor /CSE
19. Dr.C.Prakash - Professor /FT
20. G.Madhupriya – Research Analyst

Dr. M.Usha ,Principal welcomed all and briefed about the meeting.

- Dr. M.Usha ,Principal, discussed about the Global Initiative of Academic Network(GIAN).
- Dr.S.Chandraseker – Dean (R&D) discussed about the recent call for proposals from DST and other funding agencies applicable for both students and faculty.
- Dr.S.Chandrasekar Dean(R&D asked the HoDs to display the student scheme circulars on the department notice board.
- Principal listed out the various funding Schemes for students and asked the HoDs to take necessary action immediately.

- Principal also informed the staff incharge to display the student Scheme circulars in the TVs.
- Dr.S.Chandraseker informed that college is applying for DST accreditation and hence asked the centre heads to provide necessary R&D data at the earliest.
- Dr.S.Chandrasekar informed about income tax benefits to industries from SIRO recognition and asked the centre heads to use the tax exemption benefits.
- Principal insisted to apply for INSPIRE Scheme in all departments
- Principal also informed the HoDs about ATAL incubation centre application from our college and asked the HoDs to inform this to students and to get novel incubation ideas.
- Dr. B. Sathiyabhama, CSE Department to apply for INSPIRE in August
- Dr.Arulmozhiyal, EEE dept to apply for INSPIRE scheme in September
- Dr.SenthilKumar, Mech Dept to apply for INSPIRE in October
- Dr.J.SenthilKumar, IT dept to apply of INSPIRE scheme in November
- Prof.J.P.Senthilkumar, ECE dept to apply of INSPIRE scheme in December
- Principal to identify the proposal writers and discuss the content writing and business plan
- Principal informed the Heads about the ISRO SHAR exhibition to be organized at Sona in the month of October and asked Dr.Raja from Science Department to prepare necessary arrangements for the same.
- All R&D Co-ordinators and center heads are requested to come for the next meeting with the list of proposals from concerned department for various funding Schemes.

With this, the meeting came to an end and next R&D coordinators meeting is scheduled on third week of September.

Dean(R&D) 23/8/17 **Principal**

Copy to

1. Chairman/Vice-Chairman
2. All Directors
3. All HoDs/Centre Heads/Staff members
4. MIS & File

MINUTES OF LIBRARY COMMITTEE MEETING

Minutes of the meeting

The meeting of the library committee was held on 08.02.2017 at 10.30 A.M. at the MBA library to decide on the disposal of 5000 old books that kept in CMG Control room (Previous CMG Room) for over two years.

The following members were present:-

Mr.N. Venkatesan	Mr. M. Soundararajan
Mr. G. Karthikeyan	Mrs. M. Saraswathi
Mr. K. Mani	Mrs. Rajasri Sen Jaiswal
Mrs. P. Priya	Mrs. K. Bhuvaneswari
Mrs. S. Theetchenya	Mrs. R. Santhy
Ms. I. Janani	Mr. M. Muthukrishnan

- The committee has decided to disposes old book in the following way:
- The 5000 books may be written off after following the procedures given below.
- The Books may be displayed and a nominal price of 50/-Rs per book may be collected from the buyers. This may be kept for sale for a week in MCA Library.
- We will publicize the sale of old books through sonatimes, all notice boards and circulars to HOD's of Sona.
- The Management may decide once a year regarding the disposal of outdated and very old scrabbled books after annual audit. During auditing if found any soiled books, they may be written off with the approval of management.
- In case any books required for the Department library use it can be retained and rest of the books handed over to students not more than two books.
- The meeting came to an end at 11.30 a.m.

Member Secretary & Convener

N.Sreedharan, Librarian.

Copy to

Principal

All Members

File

Sona College of Technology, (Autonomous), Salem

Sona Central Library

Date: 05.01.2018

To,

All Library Staff Members for Information.

N.Sreedharan,Librarian.

Students Speakers Forum / Sona – LIKE Joint Meeting Minutes (4th Jan 2018)

The Members suggested that the SSF can have short events like discussion of Case Studies, short films, Tech Talks, and Quiz programs.

Members also suggested that we should encourage and receive ideas from student for the speakers forum. The coordinators will choose the best among the suggestions for presentation and guidelines for evaluating the best performances / rewards may be framed.

It is planned to conduct the SSF on Weekly Basics and Wednesday is suggested by the members to host the event between **4:30 to 5:30 P.M.**

All the events of SSF will be recorded and made available in Sona Library Database for the internal telecast.

SSF program may be inaugurated during third week of January. It was suggested our Vice Chairman Mr.Thyagu Vallippa may be invited to inaugurate the program on a day convenient to him.

Sona - LIKE Minutes of the meeting:

A Status report of Sona LIKE was distributed to the members.

In the earlier meeting a suggestion was made to have Posters of famous Industrialists. Accordingly Posters have been fixed on walls. They were appreciated by all members. Acrylic Board of SONA-LIKE is also mounted on the wall adjacent to the posters.

The members suggested the printing of a Brochure on Sona-LIKE and also to have it on Library Website.

The members were informed that Biographies of famous Industrialists have been ordered and are expected to arrive soon.

Vendors have been identified for furnishing the Lounge with sofa sets, Coffee Table and Book shelves etc...

All the members appreciated the work carried so far to make Sona LIKE one of excellence..

The meeting ended with a vote of thinks given by Mr.Sreedharan, Librarian.

- N.Sreedharan, Librarian presents the salient points of discussion he had with Vice Chairman **Mr.Thyagu Valliappa** on 23.10.2017 about the line of action to be taken.
- He has approved the display of the posters of Major Industrialist and Entrepreneurs.
- The poster will contain a portrait of the Industrialist and his work.
- Brochure will contain a description of the Sona LIKE Lounge and the contents there in.
- A detailed design of the lounge will be made with collaboration of Civil Department. A time flow diagram for the execution of the lounge for Sona LIKE.
- We invited Mr.Ganapathi as a special Invitee from Civil. He is very enthusiastic of the project and he had agreed to give the detail design. He also suggested portraits of great people like Albert Einstein, Charlee Chaplin, Apple CEO Steve Job, Instrumental Music etc.