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ASCII NEWSLETTER OCTOBER - DECEMBER 2019



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A technical and cultural extravaganza aimed to break the ice between juniors and seniors and showcase the path. 05 THE TEAM Meet the team behind everything that happens

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> Expression par excellence. View different perspectives and expand perceptions of the world around you.

ABOUT ZEAL

Hello everyone, ASCII newsletter is back with a completely new look this year. Presenting to you: ZEAL, a platform open to anyone for showcasing literally anything. Did you read something about a innovative technology that blew your mind or you were sitting one day and something funny just popped in your head? Well, you can share it all. From educating to entertaining, it can be anything.



DEPARTMENT OF COMPUTER SCIENCE

VISION

To be acclaimed internationally for excellence in teaching and research in Computer Science & Engineering, and in fostering a culture of creativity and innovation to responsibly harness state-of-the-art technologies for societal needs.

MISSION

Mission 1: To assist students in developing a strong foundation in Computer Science and Engineering by providing analytical, computational thinking and problem solving skills.

Mission 2: To inculcate entrepreneurial skills to develop solutions and products for interdisciplinary problems by cultivating curiosity, team spirit and spirit of innovation.

Mission 3: To provide opportunities for students to acquire knowledge of state-of-the-art in Computer Science and Engineering through industry internships, collaborative projects, and global exchange programmes with Institutions of international repute.

Mission 4: To develop life-long learning, ethics, moral values and spirit of service so as to contribute to the society through technology.

Mission 5: To be a premier research-intensive department by providing a stimulating environment for knowledge discovery and creation.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

The Computer Science & Engineering Program graduates will

PEO1: Strive on a global platform to pursue their professional career in Computer Science and Engineering.

PEO2: Contribute to product development as entrepreneurs in inter disciplinary fields of engineering and technology.

PEO3: Demonstrate high regard for professionalism, integrity and respect values in diverse culture, and have a concern for society and environment.

PROGRAMME OUTCOMES (PO'S) AND PROGRAMME SPECIFIC OUTCOMES(PSO'S)

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design and development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to Assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of and need for sustainable development.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PSO1: Adopt Standard Practices: Ability to design and engineer, innovative, optimal and elegant computing solutions to interdisciplinary problems using standard practices, tools and technologies.

PSO2: Research and Innovation: Ability to learn emerging computing paradigms for research and innovation

RAINBOW 6 SIEGE

14th November 2019, IT LAB 1 AB2



With the tagline "Remember! you are the hunters, dey are da prey". ASCII's Rainbow Six Siege Event was a grand success with about 20 teams hunting down the final trophy. On 14th of November 2019 The ASCII club of Amrita Vishwa Vidyapeetham conducted Rainbow Six Siege gaming event. The club along with all the technical events conducts a bunch of non technical events to shape the students as multi faceted personalities. Every year the ASCII club conducts one gaming event giving the students room to showcase their talents. This year the game Rainbow Six Siege was chosen to be hosted in the gaming event as most of the students in the college showed their interest towards this game. The event was approved by the faculties of ASCII and Department of Student Welfare. The posters were printed and posted all over the college along with the registrations link for the event. A total of 19 teams registered for the event with each team comprising of 5 members. A grand prize of Rs. 2250 was announced for the winner of the tournament. Students across all the departments of engineering took part in the event and there was an attendance over 200 in the venue (IT LAB 1 - AB 2) with many coming in the witness the extravaganza. The event was conducted for three straight days having to phases the playoffs and the finals. In the playoffs if a team loses twice then they are out of the event. There were 5 hosts servers for the event an therefore we had 5 matches happening at the same time. About 36 matches were conducted in the playoffs. The finals was conducted against the top two teams of the playoffs The Cupercult and The Nerdzis with later turning out as the winner of the tournament. On the whole the gaming event was a great success with all the help provided by the Faculties and the Executive Members of the ASCII club.

REBOOT 2K19 21st December 2019, AB3 and Pandal





Association of Students of Computer science for Information Interchange connects every student, faculty and club in the department of CSE. And Reboot was the stellar event of ASCII which brought together the entire of CSE with fun and equally informative events like escape room, ideathon, virtual treasure hunt, shipwreck, music, talks and dances. Starting from ice breakers to open mics, the event was a complete extravaganza.



THE TEAM ASCII OFFICE BEARERS 2020

Dr D Venkatraman Ms T Bagyammal Ms Archana R

Faculty Coordinators

Balaji Barathwaj M

ASCII Chair 2019-2020

Nithish K

ASCII Co-Chair 2019-2020

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ASCII Co-Chair 2019-2020

EXECUTIVE MEMBERS

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TECHNOLOGY AND CINEMA: BONDED BY INNOVATION

SAINATH C

The art of cinema is essentially a technological art, which is actually a boon for filmmakers-their art stands on the shoulders of industrial giants who made it possible to capture motion on film and video-as well as a severe challenge. The greatest directors are more than artists; they're also technological innovators who push the tools of the medium and, sometimes, even discover or invent new ones. If we were to consider examples, need not look any farther than the Indian filmmaker Shankar. For the film 2.0, he bought India's first 3-d camera and a bigger achievement was the fact that LIDAR technology was used for the first time in Indian film making history. If we were to see Hollywood, we may see filmmakers such as Steven Spielberg or Christopher Nolan who were major endorsers of the marriage of technology and cinema. In recent years, great movies have been made with a varied range of devices, including consumer-grade video cameras such as GoPro, toy cameras, iPhones, and even pieced together from footage borrowed from the Internet. While speaking about innovators, let's not forget the legendary Charlie Chaplin, who was, debatably, the greatest innovator of his field. We've all seen the iconic shot of him running in a house that was in turning in itself. This was done using a revolving room set, a technique never before perceived. From Chaplin to Spielberg, technological innovations in cinema have come a long way. But whether a movie is made with grand Hollywood equipment or with ordinary devices, there's nothing banal about a image; cinematic great as the cinematographer Caroline Champetier said in a recent interview, "a beautiful shot is always a birth."





WHAT is 5G?

5G is the 5th generation mobile network. It will elevate the mobile network to not only interconnect people, but also interconnect and control machines, objects, and devices. It will also deliver multi-Gbps peak rates, ultra-low latency, massive capacity, and more uniform user experience.

WHERE can we use it?

In general, 5G use cases can be broadly categorized into three main types of connected services:

Enhanced Mobile Broadband: 5G will not only make our smartphones better, but it will also usher in new immersive experiences, such as VR and AR, with faster, more uniform data rates, lower latency, and cost-per-bit.

Mission-Critical communications: 5G will enable new services that can transform industries with ultra-reliable/available, low latency links—such as remote control of critical infrastructure, vehicles, and medical procedures.

Massive Internet of Things: 5G will seamlessly connect a massive number of embedded sensors in virtually everything through the ability to scale down in data rates, power and mobility to provide extremely lean/low-cost solutions.

A defining capability of 5G is also the design for forward compatibility—the ability to flexibly support future services that are unknown today.

EVERYTHING YOU HAVE TO KNOW ABOUT 5G

SANDHYA S

WHEN is 5G coming out?

A number of 5G phone announcements were made in 2019 and we expect more to come in 2020, however only a handful are currently available, and the choice is further limited by country and carrier.

HOW does 5G work?

Like 4G LTE, 5G is also OFDM-based and will operate based on the same mobile networking principles. However, the new 5G NR (New Radio) air interface will further enhance OFDM to deliver a much higher degree of flexibility and scalability. For more details on 5G waveform and multiple access technique.

5G will not only deliver faster, better mobile broadband services compared to 4G LTE, but it will also expand into new service areas, such as mission-critical communications and connecting the massive IoT. This is enabled by many new 5G NR air interface design techniques, such as a new self-contained TDD subframe design; for more detailed information on 5G and to understand the specific 5G NR design components

CREATIVITY SPLASH

ADITHI GIRIDHARAN



