RESONANCE

NEWSLETTER APRIL-JUNE 2019

Department of Electronics & Communication Engineering

VISION

To be globally recognised for excellence in electronics and communication engineering education and research through value -based resource integration.

MISSION

M1: To nurture professionals who are capable of engineering solutions that enhances the quality of life as per the needs of the society.

M2: To provide an ambience for freethinking and innovation.

M3: To strive for a high-yielding collaboration with industry and institutions of repute.

M4: To launch students successfully into one of a variety of careers offering life long learning, service and leadership

DEPARTMENT ACTIVITIES

FDP ON INDUSTRY 4.0

A KTU sponsored 5 day FDP on 'Industry 4.0: Current Research Trends and Challenges' was held from 27th - 31st may 2019. The event was inaugurated by Dr. Kumar Rajamani, Manager (Technical), Bosch Engineering and Business Solutions Bangalore. He also handled a hands on session on Tensor flow. The other sessions were handled by academicians of reputed institutions like NITs and Amritha University. A session on Next generation wireless networks was handled by Dr. Neelakantan PC, Principal,MITS and a session on Deep learning was handled by Ms.Vidya T.V, Asst. Professor, ECE, MITS. The FDP was co-ordinated by Dr. Selvia Kuriakose and Ms. Deepa Prabhu, Asst Professor, MITS.

QUIZ

A fun quiz event titled ' Who am I ? ' was held on 6th May 2019 for the S4, ECE students. The quiz was all about various tech geniuses and their inventions, with a bit of cultural activity. The event was organised by the department association and the quiz master was Dr. Arunkant A Jose, Asst. Professor ECE.

FACULTY PUBLICATION

Ms. Dhanya S., Asso. professor, ECE published a journal paper titled "Mathematical modelling of polymer electrolyte membrane fuel cell and fuzzy-based intelligent controllers for performance enhancement" in the Journal of Computers and Electrical engineering, Volume 77, July 2019, Elsevier Publications

WORKSHOP

IBM TRAINING

Ms.Dhanya S., Asso. Professor, Ms. Anjali S.V and Ms. Megha Franklin Asst. Professor, ECE attended the IBM training for AI analyst and aquired IBM Artificial Intelligence analyst mastery award 2019.

STUDENT ACHIEVEMENTS

PROJECT EXHIBITION

Three final year projects of ECE won prizes in the intra-college project exhibition. The prizes were declared during Gyan Samarpan and was handed over to the winners by the chief guest Shri. Dinesh Thampi. The project titled "Smart Semi-Ambulant Domicilary Healthcare System" by Aravind Menon, Basil Johnson, Meera Vinayan, and Priyasree.S won the 2nd prize. The 2nd prize was also won by Andriya Mariyam Boban, Aneesa C M,Megha Baby & Merin Roy for the project titled 'Geospatial Co-ordinate Tagging Real-Time Positioning System'. The 3rd prize was bagged by A. Anandu' Anugrah Sundaram & Anusree K.A for the project titled Intelligent two wheeler accident avoidance and prediction system.

PLACEMENTS

Infosys
Basil Johnson
Keerthana Rajesh
Meera Vinayan
Priyasree S
Aswathy V.V
Anusree K.A
Maria Thomas

Wipro
Sreerag K.S
S. Sreejyothi

Mindtree
Varsha Raj

Fingent
Rishin Joy

PLACEMENT STATISTICS (till June 2019)

No. of Placements: 31

No: of offers: 46

ADIEU

GYAN SAMARPAN 2019

Gyan Samarpan' 19, the convocation ceremony of the 2015-19 batch of students was held on 18th June 2019. The chief guest of the day was Shri. Dinesh Thampi, Vice President & Delivery Centre Head, Kerala. Mr.Anugrah Sundaram R, was awarded the best outgoing student from ECE and Ms. Andriya Mariyam Boban received the proficiency award.

TECH CORNER

5G COMMUNICATION & ITS IMPLICATION ON INDIA

Dr.Arun Joy

Asso. Professor

Fifth Generation (5G) communication is the next generation cellular technology that will provide faster and more reliable communication with ultra low latency. In India the expected data rate is in the range of 2-20 Gigabit per second (Gbps) while for 4G communications the data rate is only about 6-7 Megabit per second (Mbps). In April 2019, South Korea and the U.S. became the first countries to commercially launch 5G services. China too has handed out commercial 5G licenses to its major carriers. With 5G technology, consumers will be able to download data heavy content such as 8K movies and games with better graphics in just a few seconds. But this requires the use of 5G enabled mobile devices. This new communication standard is expected to go beyond mobile communication. It is expected to form the backbone of emerging technologies such as the Internet of Things (IoT) and machine to machine communications, thereby supporting a much larger range of applications and services, including driverless vehicles, tele-surgery and real time data analytics. The ultra low latency offered by 5G makes the technology desirable for such use cases.

A government study states that with the advent of 5G, for the first time wireless technologies will extend its use across completely new sectors of the economy from industrial to commercial, educational, health care, agricultural, financial and social sectors. One of the primary applications of 5G will be the implementation of sensor-embedded network that will allow real time relay of information across fields such as manufacturing, consumer durables and agriculture. 5G can also help make transport infrastructure more efficient by making it smart. 5G will enable vehicle-to-vehicle and vehicle-to-infrastructure communication, making driverless cars, among other things, a reality. 5G is expected to create a cumulative economic impact of $1 trillion in India by 2035, according to a report by a government-appointed panel.The union communication minister, Mr. Ravishankar Prasad has promised that trials in India will begin by mid-September 2019. During the first term of the Narendra Modi government, the Central government had set a target of 2020 for the commercial launch of 5G services, largely in line with rest of the world. For the trials to begin, the government needs to allot certain amount of spectrum to telcos.The government launched a three-year programme that started in March 2018 to advance innovation and research in 5G with a budget of Rs.224 crore. Ericsson has also installed a 5G test bed at IIT Delhi for developing applications in the broadband and low latency areas. This will help develop India-specific usage scenarios and applications.

Its seen that 5G is the future of communication with huge potential in IOT applications which are a requirement for the government's policy of smart cities. But private mobile service providers have already stated that the spectrum is overpriced and is not in a position to incur further losses in a highly competitive market. Another concern is that a complete overhaul of the hardware is required to support 5G communication. This will be difficult to implement easily in a developing country like India where 4G communication has only been launched a few years back. Hence the government is required to swiftly come up with policies to implement 5G that addresses the concerns of all the stakeholders while not being left behind in the drive for development.

NEWSLETTER TEAM

Dr. Arun Joy **Asso. Professor** **(Faculty Coordinator & Design)**	**Ms. Ashly Abraham** **S7, ECE** **(Chief Editor)**	**Ms. Anjali K. Shaji** **S5,ECE** **(Student Representative)**