

# Department of Electronics and Communication Engineering (Accredited by NBA)

#### **NEWSLETTER- JANUARY 2024 ISSUE**



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#### Vision

To be a center of excellence for education, research and development in the field of Electronics and Communication engineering to meet the growing needs of the society.

#### Mission

- Develop competencies in emerging technologies through skill based education collaborating with industries of repute
- Provide conducive environment for research and innovation to cater to the needs of the society
- Inculcate professionalism, ethical values and lifelong learning

# **Programme Educational Objectives**

- PEO1: Apply principles of Electronics and Communication Engineering to provide solutions to the emerging problems in the society.
- PEO2: Embrace technological challenges through skill upgradation or higher education or research.
- PEO3: Exhibit leadership qualities with professional and ethical values



#### **EVENT ORGANIZED**

➤ The department of ECE has organized a value added course on Signal and Image Analysis Using MALAB Tools from 18.01.2024 to 20.01.2024 as a part of the skill development service to the student community. This value added course started with introduction to MATLAB Tools and signal processing fundamentals. In the second day, students were exposed with the image enhancements using filtering, histogram processing and image de-blurring. In third day, hands-on training was given to the students in different signal processing and imaging applications using MATLAB Tools. Totally30 second year students of ECE department are participated in this value added course.



#### **FACULTY PUBLICATIONS**

- ➤ **H.James Deva Koresh**. (2024). Impact of the preprocessing steps in Deep Learning-based image classifications. *National Academy Science Letters*. <a href="https://doi.org/10.1007/s40009-023-01372-2">https://doi.org/10.1007/s40009-023-01372-2</a>
- ➤ Senthilkumar S, A.Basi Reddy, Anna Alphy, Jayaraj Velusamy, **Indra J**, & Manikandan Rajagopal. (2024). Mapping of groundwater availability in dry areas of rural and urban regions in India using IOT assisted Deep Learning Classification Model. Groundwater for Sustainable Development, 25, 101098. https://doi.org/10.1016/j.gsd.2024.101098

- Nilanjana Pradhan, Shraddha Sagar, & T.Jagadesh. (2024). Advance convolutional network architecture for MRI data investigation for alzheimer's disease early diagnosis. SN Computer Science, 5(1). https://doi.org/10.1007/s42979-023-02560-z
- ➤ .Jaikumar Rajendran, Lavanya Raju, & Leena Bojaraj. (2024). Analytical assessment of Schottky diodes based on cds/si heterostructure: Current, capacitance, and conductance analysis using TCAD. Indian Journal of Physics. https://doi.org/10.1007/s12648-023-03052-9
- ➤ S.Suganyadevi, & V.Seethalakshmi. (2023). Deep recurrent learning based qualified sequence segment analytical model (QS2AM) for infectious disease detection using CT images. Evolving Systems. https://doi.org/10.1007/s12530-023-09554-5

#### **FACULTY PARTICIPATION**

Name of the Faculty	Title of FDP/STTP/OFDP/ Conference/Online Course	Organization Name	Start Date	End Date
	Course			
Mr.T.Jagadesh	Wireless Capsule Endoscopy Bleeding Images Classification using CNN Based Model	RV Institute of Technology and Management	24-10-2023	24-10-2023
Mr.T.Jagadesh	An Extended Canberra Similarity Measure Method for Content- Based Image Retrieval	RV Institute of Technology and Management	24-10-2023	24-10-2023
Dr.M.Kalamani	IOT	Enthu Technology Solutions	22-01-2024	27-01-2024
Dr.J.Indra	Curriculum Design in OBE Framework	IQAC, KPRIET	20-01-2024	20-01-2024
Dr.M.Kalamani	Curriculum Design in OBE Framework	IQAC, KPRIET	20-01-2024	20-01-2024
Dr.K.S.Tamilselvan	Intellectual Property and Start up	Qualcomm	20-01-2024	20-01-2024
Ms.MD.Saranya	Recent Trends In Artificial Intelligence	Pantech E - Learning	22-01-2024	27-01-2024
Ms.S.Priyadharsini  Innovative Teaching Learning Pedagog		World Innovative University, Kandwala College- Mumbai	09-01-2024	13-01-2024
Mr.G.Pradeepkuma r	Recent Trends in Artificial Inteligence	Bhupal Noble's University, Udaipur	22-01-2024	27-01-2024

Dr.V.Seethalakshmi	Recent trends in Communication, Computing and Networking	Poornima College of Engineering	08-01-2024	12-02-2024
Dr.J.Muralidharan	Recent Trends in Artificial Intelligence	Bhupal Noble's University	22-01-2024	27-01-2024

# STUDENT PARTICIPATION

S.No	Event Name	No of students participated
1	Online course	02
2	workshop	01
3	Contest (Quiz, Coding Contest, club events, etc.)	Nil
4	Paper presentation	01
5	Internship	Nil
6	Project Presentation	02
7	NSS, YRC activities	Nil

# STUDENT ACHIEVEMENT

S.N o	Name of the Student	Year	Title of the Event	Organized by (Name of College and Club)	Prize - Merit Position
1.	Naresh R	III/B	Magnus 2K24/line follower	Yeldo mar baselios	1st/5000
2.	Raghupathi	III/B	Quantum X/line follower	New Horizon	3rd
3.	Naveen Kumar R	III/B	Quantum X/line follower	New Horizon	3rd
4.	Ranjithkumar C	III/C	Magnus 2K24/line follower	Yeldo mar baselios	1st/5000

#### **IIPC ACTIVITIES**

#### **INDUSTRY VISITS**

- Dr.K.S.Tamilselvan, Dr.B.Jaishankar, Dr.J.Muralidharan and Dr.K.Murugan visited M/s.Sathiya Fibers, and Sri Varshini Fibers at Senjerimalai on 06.01.2024 and discussed about consultancy activities and visited M/s/Jeyam Automotives and M/s/Confident Automations, Coimbatore and discussed about student internship and collaborative research projects.
- ➤ Mr.G.H.Jakir Hussain and Dr.K.S.Tamilselvan visited M/s. HandsOn Technologies, Vellanaipatty 18.01.2014 and discussed about expert lecture by industrial person in the domain of Embedded systems.
- ➤ Dr.S.M.Ramesh, Mr.G.H.Jakir Hussain and Dr.K.S.Tamilselvan visited M/s. M.S Transformers, Neelambur on 19.01.2014 and discussed about student summer internship.

#### **OTHER ACTIVITIES**

One field visit is arranged on 18.01.2024 at Hirotec India Pvt Ltd, Mopperipalayam for III year ECE students. Totally 60 students from III year ECE and 4 faculty members were benefitted.

#### **ALUMNI LECTURE SERIES - V**

Department of Electronics and Communication Engineering in association with Office of Alumni Relations organizes Alumni lecture series V on Kick-start your Career in IT Sector.Resource person: Mr.N.Abdur Rahman (2018-2022 batch), Trainee Engineer, Avasoft Private Limited, Chennai. The event provides insights into different IT career paths, job roles, and industry trends. Career guidance sessions help the participants to make informed decisions about which areas of IT align with their interests and skills. He also provided a comprehensive overview of the current state of the IT industry, emphasizing its dynamic nature and the rapid pace of technological advancements. Insightful statistics and trends were shared to illustrate the growing demand for skilled IT professionals across various domains. The guest speaker delved into different career pathways within the IT sector, highlighting the diverse range of roles available, from software development and cyber security to data analytics and

project management. Specializations and emerging trends, such as artificial intelligence, cloud computing, and cyber security, were discussed to guide participants in making informed career choices. He also stressed the importance of continuous learning in the fast-paced IT industry.

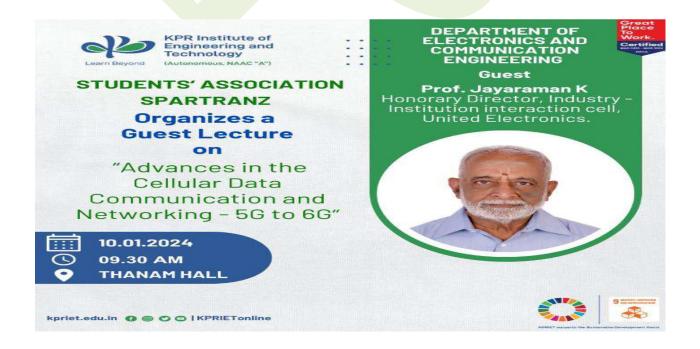


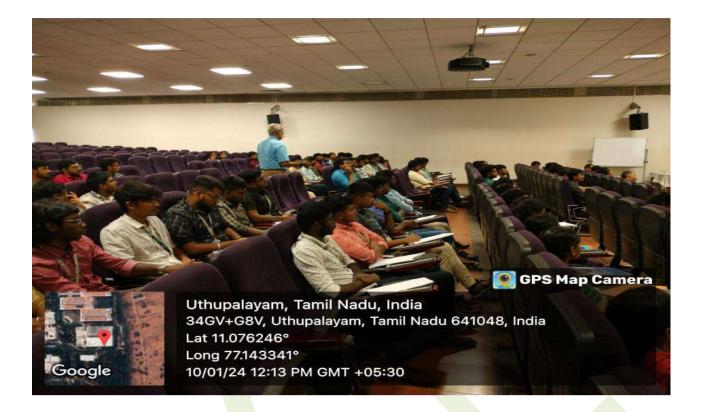


Students can able to gain valuable insights, guidance, and inspiration for kick-starting their careers in the IT sector.

# GUEST LECTURE ON "ADVANCES IN THE CELLULAR DATA COMMUNICATION AND NETWORKING - 5G TO 6G

The department of Electronics and Communication Engineering students association SPARTRANZ organizes a guest lecture on "Advances in Cellular Data Communication and Networking: 5G to 6G" on January 10, 2024, in Thanam Hall. This guest lecture is organized for final-year students of electronics and communication engineering and the faculties who are specialized in the communication domain. The session started at 09.30 a.m. Dr.J.Indra, Head of the Department/ECE, welcomed the gathering, and she explained the importance of 5G and 6G networks shortly. The session was then handed over to the chief guest, Prof.K. Jayaraman, Honorary Director, Industry Institution Interaction Cell, United Electronics. His lecture started with the basic concepts of cellular communication and networks, and then he talked about mobile technology (1G, 2G, 3G, 4G, and 5G) shortly. Then he covers the following topics during his presentation: 1. 5G technology advances and their benefits 2. 5G advanced: Evaluation towards 6G3. 6G Network- Definition, Features, and Benefits 4. Spectrum band use in 6G networks. After his presentation was over, the faculty member in charge of the students' association, Dr.K. Murugan, ASP/ECE, read the vote of thanks.





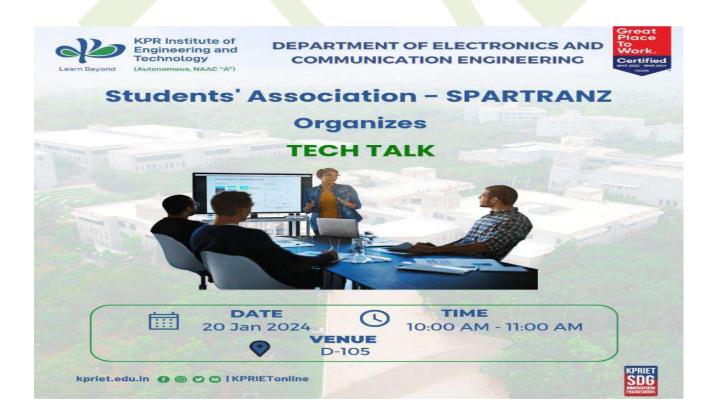
At the end of the session participant were able to understand

- 1. 5G Advanced: Evolution towards 6G
- 2. Overview of 6G networks and technology
- 3. 6G and Its Advancements Over 5G Networks
- 4. Future scope of 6G networks



#### **TECH-TALK**

The student association of Electronics and Communication Engineering, 'SPARTRANZ,' organized a technical event called 'Tech Talk' for the students on January 20, 2024, from 10 a.m. to 11 a.m. in the III ECE-A class room. The aim of the event is to discuss the recent advancements in electronics and communication engineering. The students from the various departments participated and shared their knowledge on recent advancements in electronics and communication with the participants. The following topics were actively discussed by the students, which are related to 1) Consumer Electronics: The demand for consumer electronics products around the world 2) Wearables Electronic: How Wearable Electronics changing the experiences of people? 3) Industrial Electronics: Industrial Electronics role in automation industries. 4) Home Automation Electronics :IoT-Based Home Automation 5) Artificial Intelligence (AI): The role of AI Electronics 6) Communication Electronics: How Does Modern Communication Technology Work? 7) Robotics: The future of robotics 8) aerospace and defense application: design and develop powerful and efficient systems such as aircraft, spacecraft, weapons systems, and other security systems used in the aerospace industry. 9) Automotive Electronics: The role of Automotive Electronics in control and monitor the internal system of cars.





At the end of the session, the participants were able to learn about the recent advancements in the electronics and communication domains.