



LEARN BEYOND

**KPR** Institute of Engineering  
and Technology

(Autonomous)

Avinashi Road, Arasur, Coimbatore - 641 407

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

**NEWSLETTER- JUNE 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

## **Program 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

### VALUE ADDED COURSES ON IoT WITH RASPBERRY Pi

A value-added course on "IoT with Raspberry Pi" was held at the Centre for IoT for second-year students. The event attracted all registered students, eager to explore the world of the Internet of Things (IoT) using the versatile Raspberry Pi 3 board.

Dr. M. Kalamani and Dr. R. Jaikumar led the sessions, offering hands-on training and an engaging presentation on the fundamentals of IoT and the pivotal role that Raspberry Pi plays in this domain. They highlighted the board's capabilities, including its quad-core processor, built-in Wi-Fi, and Bluetooth, making it an ideal platform for developing IoT applications.

Students participated in various hands-on workshops where they learned to set up and program their Raspberry Pi 3 boards. The projects included creating simple IoT applications using a variety of sensors and actuators. The interactive nature of these sessions provided practical experience and fostered collaboration among attendees. The event concluded with a showcase of innovative IoT projects developed by the students. The diverse applications demonstrated the Raspberry Pi 3's potential in transforming everyday objects into smart devices. Overall, the event successfully inspired and equipped students with the knowledge and skills to harness the power of IoT using Raspberry Pi.




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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**Value Added Course on IoT with Raspberry Pi**

**Resource Persons**



**Dr. Kalamani M,**  
Professor/ECE,  
KPRIET, Coimbatore.










**Dr. Jaikumar R**  
Associate Professor/ECE  
KPRIET, Coimbatore.

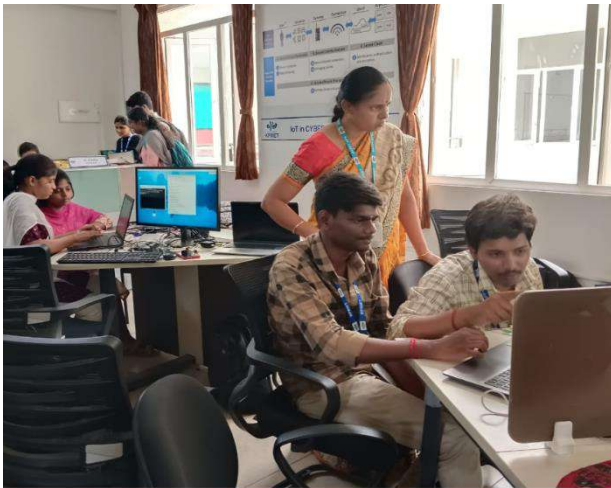
**Coordinators:**

- Dr.M.Kalamani, Professor
- Dr.R.Jaikumar, Associate Professor

**03.06.2024 & 06.06.2024 | 09.00 AM - 04.00 PM**  
**| Centre for IoT Lab**

eceKPRIET      /KPRIETonline





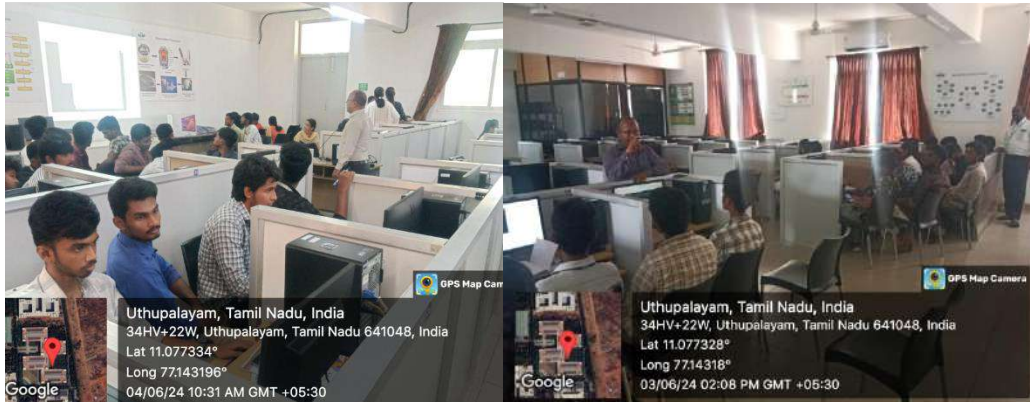
## ONE CREDIT COURSE ON DIGITAL CIRCUIT USING CADENCE


The program was designed for second-year ECE students (31 students) from sections A and B, who already have a basic understanding of digital electronics. It was conducted from June 3rd to June 4th, 2024.

The resource person began the session by introducing the fundamental concepts of full and semi-custom IC design flow. This was followed by a discussion on basic Verilog HDL commands. Simple programs were written using HDL, and their simulation outputs were verified. The tools in Cadence for synthesis were explained with examples. By the end of the first day, students had become proficient in RTL analysis and the synthesis of combinational circuits.

On June 4th, the resource person demonstrated the design of sequential circuits and Finite State Machine (FSM) controllers using examples. In the second session, physical implementation using the Innovus tool was discussed, covering topics like floor planning, power planning, placement, and routing. By the end of the program, students were able to generate GDSII files.

The coordinators, Dr. B. Jaishankar and Dr. J. Muralidharan, conducted an assessment of the program through a quiz prepared by the resource person. Feedback from the students was collected for further analysis.






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**ONE CREDIT COURSE  
ON**


**DIGITAL CIRCUIT  
DESIGN USING  
CADENCE**

**03.06.2024 & 04.06.2024 |  
09.00 AM - 04.00 PM | E - 108 Hall**

[kpriet.edu.in](http://kpriet.edu.in) |  /KPRIETonline

**DEPARTMENT OF ELECTRONICS  
AND COMMUNICATION  
ENGINEERING**

**Mr. V.Navaneethakrishnan,  
Sr. Application Engineer,  
Entuple Technologies Pvt. Ltd.**



## FACULTY PUBLICATIONS

- B. Jaishankar, Bharathi Gururaj, A. Muruganandham, & G. Nagarajan. (2024). Hybrid clustering approach (SG-MFOA) using multipath Cross-Layer design in Manet Network. IETE Journal of Research, 1–9. <https://doi.org/10.1080/03772063.2024.2352646>.
- Ram Nivas. D, Krishnaraj R, Kathirvelu. M, & Ishwarya Niranjana. M. (2024). Design and implementation of knee angle recovery companion kit: A knee flex rehab aid system. 2024 Ninth International Conference on Science Technology Engineering and Mathematics (ICONSTEM). <https://doi.org/10.1109/iconstem60960.2024.10568887>
- Murugan K, Namik Mohamed N R, KavinRaj S, M K Prabhu, & MohitKumar N. (2024). ECOWATT - Appliance Power Monitoring & Optimization. 2024 Ninth International Conference on Science

TechnologyEngineeringandMathematics(ICONSTEM).<https://doi.org/10.1109/iconstem60960.2024.10568852>.

- T Jagadesh, Kamalesh P, Kishore A, Lokin V, & Jaiprakash B. (2024). Oral cancer detection using Convolutional Neural Networks. 2024 Ninth International Conference on Science Technology Engineering and Mathematics (ICONSTEM). <https://doi.org/10.1109/iconstem60960.2024.10568599>
- N. Sathishkumar, B. Anitha, A.Anzel Muhammad, B.V. Gokul Raj, & P.S. Bhuvanesh. (2024). Design of SIW based dual feed antenna for 5G Communication Systems. 2024 Ninth International Conference on Science Technology Engineering and Mathematics (ICONSTEM). <https://doi.org/10.1109/iconstem60960.2024.10568882>
- M. Supriya, Kavya. P, Parish. S, Nagavel. S, & Mohana Prasad. S. (2024). Design of EV control monitoring of multiple approach fault detection using multi sensor IOT System. 2024 Ninth International Conference on Science Technology Engineering and Mathematics (ICONSTEM). <https://doi.org/10.1109/iconstem60960.2024.10568628>
- Anandhi Kathiresan, Sahana Shetty, S M. Ramesh, T. Arun, Praveen Kumar R, & Glory E. (2024). Neem leaf disease detection based on enhanced leaky capacitor-fired neuron (LCFN) model. 2024 Ninth International Conference on Science Technology Engineering and Mathematics (ICONSTEM). <https://doi.org/10.1109/iconstem60960.2024.10568835>
- Anandhi Kathiresan, Saranya M D, Sri Roshini R, M.R. Mythily, R. Bhavani, & K. Murugan. (2024). Segment-specific layer detection using oral radiology image for gingivitis diagnosis. 2024 Ninth International Conference on Science Technology Engineering and Mathematics (ICONSTEM). <https://doi.org/10.1109/iconstem60960.2024.10568587>
- N. Sathishkumar, S. Aravind, N. P. Dharaneeshwaran, R. Dharun Karthik, & K. Gowtham. (2024). Dual-band Antenna System for advanced tactical communication networks in Next Generation Military Applications. 2024 Ninth International Conference on Science Technology Engineering and Mathematics (ICONSTEM). <https://doi.org/10.1109/iconstem60960.2024.10568591>
- Malathi D, Saranya M D, Ponnurugan P, Revathi S, Kavin Kumar K, & Malavika S. (2024). Design of content-addressable memory for big data applications using 18nm FINFET Technology. 2024 7th International Conference on Devices, Circuits and Systems (ICDCS). <https://doi.org/10.1109/icdcs59278.2024.10560788>
- Veera Boopathy E, Kalirajan K, Mohamed Kasim S, Mugesh A, Rathish S G, Nithyaganesh S, & Vimalraj P. (2024). FPGA realization of high-efficient address generator algorithm for WiMAX deinterleaver. 2024 IEEE 4th International Conference on VLSI Systems, Architecture, Technology and Applications (VLSI SATA). <https://doi.org/10.1109/vlsisata61709.2024.10560076>

## FACULTY & STAFF PARTICIPATION

Name of the Faculty/Staff	Title of FDP/STTP/OFDP/Conference/Online Course	Organization Name	Start Date	End Date
Ms. R. Saranya Mr.MU. Ponrajkarthik Ms. P. Sutha Mr. V. Raveendhar Mr.S.Kannapiran Mr.S.Tamilarasan Mr. Ramesh	Electrical Safety Measures and Best Practices for Electrical Equipment Handling in Workplaces	KPRIET	10/06/2024	15/06/2024

## IIPC ACTIVITIES

### INDUSTRY VISITS

- Dr.K.S.Tamilselvan and Mr.M.Ramesh visited Vasantha advanced Systems Ondipudur on 01.06.2024 and discussed about student internship and consultancy activities.
- Dr.K.S.Tamilselvan visited Wizard Systems Ganapathy, Coimbatore on 03.06.2024 and discussed about Faculty internship.