



KPR Institute of Engineering
and Technology

(Autonomous)

Avinashi Road, Arasur, Coimbatore - 641 407

Department of Electronics and Communication Engineering
(Accredited by NBA)

NEWSLETTER - JULY 2023 ISSUE



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➤ **Vision**

To be a centre 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 the needs of the society.
- Inculcate professionalism, ethical values and lifelong learning.

➤ **Programme Educational Objectives**

Graduates of BE-ECE program, after four years of graduation, will

- **PEO 1:** Apply principles of Electronics and Communication Engineering to provide solutions to the emerging problems in the society.
- **PEO 2:** Embrace technological challenges through skill upgradation or higher education or research.
- **PEO 3:** Exhibit leadership qualities with professional and ethical values.

EVENT ORGANIZED

- On July 22nd 2023 webinar, there was an insight about role of an embedded Engineering by the resource person Mr.Hemanand Ramasamy which deals with various fields and demands a diverse set of skills, especially in hardware, VLSI (Very Large-Scale Integration), embedded software, and PCB (Printed Circuit Board) design. Major point insisted by him are, To excel in these areas and become successful engineers, individuals need to acquire both technical and non-technical proficiency. Budding engineers must possess a solid understanding of hardware architecture, which involves designing and configuring the physical components of a computer system or electronic device. Knowledge of VLSI is crucial, as it involves designing integrated circuits with thousands or millions of transistors on a single chip, enabling complex functionalities and miniaturization. Engineers need to be proficient in writing and debugging embedded software, which is code specifically developed to control and operate micro-controllers and other embedded systems. PCBs are the backbone of electronic devices, and engineers must be skilled in designing these boards to ensure proper electrical connections and signal flow. Familiarity with Linux and Unix operating systems is essential, as they are widely used in the engineering industry for development and testing purposes. Effective debugging skills are crucial to identify and fix issues in both hardware and software components of a system. Clear communication through reading and writing technical documents, specifications, and reports is vital for engineers to collaborate effectively and convey their ideas accurately. As engineers progress in their careers, project or product management skills become essential for leading teams and ensuring successful execution of engineering projects. A strong foundation in electronics principles and theories is essential to grasp complex hardware and VLSI concepts. Basic knowledge of using oscilloscopes and multi-meters is valuable for testing and troubleshooting electronic circuits.

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DEPARTMENT OF ECE

Mr. Hemanand Ramasamy
CEO
Machdatum Private Limited
Coimbatore

WEBINAR
on
**PREPARING FOR THE ROLE
OF AN EMBEDDED
DEVELOPER**

22.07.2023 | 10.00 AM
<https://meet.google.com/xho-xetu-eco>

Organized by Students' Association SPARTRANZ

kpriet.edu.in | KPRIETonline

G20

- The installation ceremony of KPRIET - IETE Students' Forum office bearers for the academic year 2023-24 was held on 22nd July 2023 at D-208. The event was organized by the IETE Students' Forum (ISF), Department of ECE, KPR Institute of Engineering and Technology under the Guidance of the Chairman Dr.K.P.Ramasamy, the Chief Executive Dr.A.M.Natarajan and the Principal Dr.M.Ramasamy. The installation ceremony was initiated through induction program at 10 a.m. by Dr.J.Indra, Professor and Head, Department of ECE. The newly elected office bearers for the academic year 2023-24 were introduced to the gathering by Mr.G.K.Jakir Hussain, Coordinator, KPRIET - IETE Students' Forum. The newly elected President of the forum for the year 2023-24, Mr.R.Yeashwanth Balaji, presented their acceptance speech. Dr.J.Indra, Professor and Head, Department of ECE expressed her best wishes to the newly elected office bearers. Ms.T.V.Vibesha, Secretary (2023-24) read the pledge on the code of conduct of IETE to the KPRIET-ISF student members and the pledge was repeated by all the KPRIET-ISF student members to commit themselves to contribute to the professionalism. The installation ceremony of KPRIET - IETE Students' Forum was concluded through the plan of activities by Mr.R.Yeashwanth Balaji, President (2023-24) and Mr.B.Selvarathinam, Treasurer (2023-24) rendered the vote of thanks.



- The Department of Electronics and Communication Engineering, KPR Institute of Engineering and Technology organized a hands-on technical training program on Design and Simulate CMOS Basic Gates and Flip Flops. The resource person Mr. Soma Shekhar H, Product Manager – Cadence EASI

discussed the latest technology in VLSI domain and showcased the job opportunities for VLSI Design engineers in the globe. He also added the internship opportunities provided by Entuple Technologies for both UG and PG graduates. Then the session was handled by Dr. Muralidharan J, Associate Professor, Department of ECE, KPR Institute of Engineering and Technology. During the session resource person discussed on the evolution and importance of the CMOS technology and EDA tools. Then elaborated the operations of all the logic gates and flip flops with symbols and truth table. The next resource person is Mr. Navaneethakrishnan V, Sr. Application Engineer (AE), Entuple Technologies Pvt. Ltd. explained the intricate journey of transforming a Register Transfer Level (RTL) description into the final Graphic Data System (GDS) file in the world of VLSI (Very Large Scale Integration) chip design. The faculty members from various institutions participated in the workshop event.




KPR Institute of Engineering & Technology
in collaboration with
Entuple Technologies Conducts
One-day Workshop on Anna University (EC3561- VLSI laboratory)
Experiments Using Cadence EDA Tools

The objective of this workshop is to learn & practice the Anna University R – 2021, EC3561 – VLSI Design Laboratory experiments and to learn the fundamental principles of VLSI circuit design in analog domain and to understand the ASIC Design flow using Cadence EDA Tools.

Who can attend: Pre-requisites: Venue: Resource Persons:	Faculties, Research Scholars Digital System Design, Basic VLSI Design VLSI Lab, 1st Floor, E-Block (E-108) From KPRIET & Entuple Technologies
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Workshop schedule

Design and simulate CMOS Basic Gates & Flip-Flops. Generate Manual / Automatic Layout

Organizing Chair

Convenor: Dr. Indra J Professor and Head Department of ECE KPRIET	Co-Convenors: Dr. Muralidharan J, Assoc. Prof. Mr. Satheesh Kumar S, Asst. Prof. (SG) Department of ECE KPRIET
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Date & Venue

28th July 2023 - KPR Institute of Engineering and Technology, Coimbatore

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FACULTY PUBLICATIONS

- **B.Jaishankar**, Ashwini A.M., Vidyabharathi. D, & Raja.L. (2023). A novel epilepsy seizure prediction model using Deep Learning and classification. *Healthcare Analytics*, 4, 100222. <https://doi.org/10.1016/j.health.2023.100222>
- R.Divya, **Finney Daniel Shadrach**, & S.Padmaja. (2023). Cardiovascular risk detection using Harris Hawks optimization with Ensemble Learning Model on PPG Signals. *Signal, Image and Video Processing*. <https://doi.org/10.1007/s11760-023-02684-y>.
- Deepa Devasenapathy, Vidhya K, Anna Alphy, **Finney Daniel Shadrach**, Jayaraj Velusamy, & Kathirvelu M. (2023). Kidney impairment prediction due to diabetes using Extended Ensemble Learning Machine algorithm. *Journal of Machine and Computing*, 312–325. <https://doi.org/10.53759/7669/jmc202303027>.
- Vishwanadham Mandala, T. Senthilnathan, **S. Suganyadevi**, S.Gobhinath, DhanaSekaran Selvaraj, & R. Dhanapal. (2023). An optimized back propagation neural network for automated evaluation of Health Condition Using Sensor Data. *Measurement: Sensors*, 29, 100846. <https://doi.org/10.1016/j.measen.2023.100846>.
- **Prasad J**, RubanKumar J, Thirumoorthi G, UdayaKeerthi V S and Santhosh S M, "Machine Learning Based Automatic Leaf Diseases Detection", *E3S Web Conf.*, 399 (2023) 01001 DOI: <https://doi.org/10.1051/e3sconf/202339901001>
- Anto Mamman Shane S and **Muralidharan J**, "Performance Enhancement Counter with Minimal Clock Period", *E3S Web Conf.*, 399 (2023) 01005 DOI: <https://doi.org/10.1051/e3sconf/202339901005>
- **Muralidharan J**, Sindhuja L.P, Srinivasan S, Sunshetha K.V and Surendhran P, "Smart Safety and Accident Prevention System", *E3S Web Conf.*, 399 (2023) 01006 DOI: <https://doi.org/10.1051/e3sconf/202339901006>
- P. Kalyanasundaram, **S. M. Ramesh**, R. Gurusamy, V. Rajmohan and S. Hamsanandhini, "Internet of Things based Innovative Irrigation System for the evaluation of Sand Quality with Security measures for Agriculture Land using Wireless Sensor Network," 2023 Second International Conference on Electrical, Electronics, Information and Communication Technologies (ICEEICT), Trichirappalli, India, 2023, pp. 01-06, doi: 10.1109/ICEEICT56924.2023.10157473.
- Hezekiah JDK, Ramya KC, Radhakrishnan SBK, Kumarasamy VM, Devendran M, Ramalingam A, **Maheswar R**. "Review of Next-Generation Wireless Devices with Self-Energy Harvesting for Sustainability Improvement. *Energies*. 2023; 16(13):5174. <https://doi.org/10.3390/en16135174>

FACULTY AS RESOURCE SPEAKER

- Dr.K.S.Tamilselvan, Professor, Department of ECE, KPR Institute of Engineering and Technology as a chief guest program“ Paradigm shift in embedded communication.Artificial Intelligence and Robotics“ organised by Jai Shriram Engineering College on 03.07.2023 to 04.07.2023.

JAI SHRIRAM ENGINEERING COLLEGE
Toward Academic Excellence
Approved by AICTE, Affiliated to Anna University, Chennai, Accredited by NAAC and NBA (CSE & ECE)
Coimbatore Road, Avinashipalayam, Tirupur-638660

INVITATION
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Organizes
AICTE Sponsored National Level Conference
On
“Paradigm Shift in Embedded, Communication, Artificial Intelligence & Robotics”
(PECAR-2K23)
3 & 4 - July, 2023

Chief Guest
Dr. K.S. Tamilselvan K S
Professor/ECE
KPRIET, Coimbatore

Eminent Speakers

 Dr. S. Siva Ranjani Dean - CSE, IT & Allied Courses Sethu Institute of Technology, Virudhunagar	 Dr. S. Kamalakannan ASP/ECE Vignana's Lara Institute of Technology and Science, Andhrapradesh.	 Dr. T. Sudarmani ASP/ECE Avinashilingam University, Coimbatore	 Dr. S. Moivel AP/ECE M. Kumarasamy College of Engineering Karur	 Prof. J. Rajalakshmi ASP/ECE Sethu Institute of Technology, Virudhunagar
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Shri. T. K. Karuppannaswamy Vice-Chairman
Dr. R. Thirumalai Principal

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- Dr.U.S.Ragupathy, Professor, Department of ECE, KPR Institute of Engineering and Technology as resource person for workshop program“ A two day workshop on outcome based education“ organised by KPR Institute of Engineering and Technology on 07.07.2023 to 08.07.2023.

KPR Institute of Engineering and Technology
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A TWO DAY WORKSHOP ON OUTCOME BASED EDUCATION
FACULTY MEMBERS OF CIVIL ENGINEERING
07 & 08 JULY 2023
THE LEGEND

DEPARTMENT OF CIVIL ENGINEERING
Dr. U. S. RAGUPATHY
Director - Quality Assurance
KPRIET

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G20 SDG

- Dr.R.Jaikumar, Associate Professor, Department of ECE, KPR Institute of Engineering and Technology as resource person for Three Days FDP program“ Introduction - MOS Ideal and Non-Ideal Characteristics “ organised by Sri Ranganathar Institute of Engineering and Technology on 19.07.2023



FACULTY PARTICIPATION

Name of the Faculty	Title of FDP/STTP/OFDP/Conference/Online Course	Organization Name	Start Date	End Date
Ms.S.Suganyadevi	Integrated Model For Covid 19 Disease Diagnosis Using Deep Learning Approach	nanamani College of Technology	7/19/2023	7/19/2023
Dr.K.Kalirajan	Enhancing Faculty Expertise:	Aditya College of Engineering &	7/10/2023	7/15/2023

	Communication and Signal/Image Processing	Technology, Coimbatore		
Dr.S.M.Ramesh	Communication and Signal / Image Processing	Aditya College of Engineering & Technology, Kakinada, AP	7/10/2023	7/15/2023
Dr.S.M.Ramesh	Quantum Computing using Indigenous Quantum Simulator QSim	IIT Roorkee and C- DAC Hyderabad	5/6/2023	5/28/2023

STUDENT PARTICIPATION

S.No	Event Name	No of students participated
1	Online course	4
2	workshop	Nil
3	Contest (Quiz, Coding Contest, club events, etc.)	1
4	Paper presentation	3
5	Internship	23
6	Project Presentation	01
7	NSS, YRC activities	2

STUDENT ACHIEVEMENT

S.No	Name of the Student	Year	Title of the Event	Organized by (Name of College and Club)	Prize - Merit Position
1.	Mr.R.K.Sri Shyamnath	III C	International Internship	Tawiz Technical Services, Dubai	First
2.	Mr.Pavan S	III B	Internship	e-Yantra student	Selected as Jr. Project Technical Assistant

3.	Mr.Dhanaseelan T D	III A	NPTEL Online Certification	Swayam	Elite
4.	Balaji.P	III A	Coimbatore District karate championship	Coimbatore District Karate Association	Gold medal

PLACEMENT ACTIVITIES

S.No	Name of the Student	Name of the Company
1	Niranjana Kumar V	Kone Elevators
2	Indraes Ravikumar	Kone Elevators
3	Mark Richard	Kone Elevators
4	Samyuktha MR	Kone Elevators
5	Naresh Balaji S	Kone Elevators
6	Indhumathi S	Kone Elevators
7	Rithanya E	Kone Elevators
8	Namadeep P	Kone Elevators
9	Dharshana V	Kone Elevators
10	Nidhish Kumar	Kone Elevators
11	Mohit kumar	Kone Elevators
12	Ramakrishna Raja	Kone Elevators
13	Vignesh MJ	Kone Elevators
14	Kavya P	Kone Elevators
15	Anirudh J	Kaar Technologies
16	Kasturi Jayanthi RV	Kaar Technologies
17	Livyashree M	Kaar Technologies
18	Santhoshini M	Kaar Technologies
19	Sowmiya R	Kaar Technologies
20	Sivapradeep P	Kaar Technologies

IIPC ACTIVITIES

INDUSTRY VISITS

- Dr.K.S.Tamilselvan along with IIPC coordinators visited AGRI INTEX 2023 expo at CODISSIA on 17.07.2023.
- Dr.K.S.Tamilselvan visited M/s.Aiswarya Electronics, Coimbatore on 13.07.2023 and discussed about student internship and consultancy projects.

- Dr.K.S.Tamilselvan visited M/s.Faraday Ozone, Coimbatore on 21.07.2023 and discussed about consultancy projects in automation



OTHER ACTIVITIES

- Summer internship review for II year ECE students was conducted on 22.07.2023.