



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

## **NEWSLETTER- NOVEMBER 2022 ISSUE**



# **EDITORIAL BOARD**

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# > Vision

To be a centre of excellence in the emerging areas of Electronics and Communication Engineering through research, innovation and value based education

## > Mission

- To develop competency in emerging technologies through knowledge and skill based education
- To provide conducive environment for research and innovation to cater the societal needs
- To inculcate moral and ethical values to become socially responsible engineers

# > Programme Educational Objectives

- **PEO 1:** Apply Electronics and Communication Engineering principles to develop socially and environmentally acceptable engineering solutions.
- **PEO 2:** Embrace technological challenges through skill upgradation or higher education or research.
- **PEO 3:** Exhibit leadership qualities with professional and ethical values.

#### **EVENT ORGANISED**

Department of Electronics and Communication Engineering - Students' Association "SPARTRANZ" organized a "NATIONAL ENGINEERING TALENT SUBMIT & EXPOSITION 2022 NETSE '22 -2.O on 05.11.2022, sponsored by "Enthu Technology" Co-Sponsored by "VAct Technologies" and "Silicon Systems Infinite Solutions". Mr. Balakumar Chinnusamy, Vice president, VVDN Technologies Pvt. Ltd., Pollachi was the chief guest for the inaugural ceremony. Mr.V.D.Deepakraj, President "SPARTRANZ" welcomes the gathering. A Felicitation address was given by Dr.M.Kathirvelu, Professor and Head, Department of Electronics and Communication Engineering. He has pointed out the contributions and efforts of the students in organizing this event. The chief guest. His presentation also covers FPGA based Robotics computing, Multi robot collaboration on FPGA, and Space robots powered by FPGA. Around 500 participants from various institutions have participated in this event. Technical events competitions like paper presentation, project exhibition, Technical puzzles, and technical quizzes are conducted. Medals and certificates are distributed to the winners and participants. Finally, the vote of thanks was delivered by Mr. G.Mouneshwara, President of the IETE student chapter.



The resource person is Mr. Shivaprasad B K, Senior Field Application Engineer, Entuple Technologies Pvt. Ltd. He has Completed M.Tech from B.V. Bhoomaraddi College of Engineering and Technology, Hubli, in 2014 (Affiliated to VTU, Belagavi) Specialization in VLSI Design and Testing and Completed Bachelor of Engineering from SJM Institute of Technology, Chitradurga, in 2012 (Affiliated to VTU, Belagavi) Specialization in Electronics and Communication Engineering department. He Worked as an Intern at ISRO Bangalore in the year 2014. Also he posses 8+ years of experience in the VLSI Design domain. He is also a Life time member of Indian Society for Technical Education(ISTE). The Department of Electronics and Communication Engineering, KPR Institute of Engineering and Technology organized a hands-on technical training program on Physical design using Cadence EDA Tool. During the technical training various parameter estimation and analysis was done on combinational circuits among them few are Power estimation, Delay estimation, Floor planning and Area estimation in semi-custom mode as well as full-custom mode. Add on to that testing, detection and diagnosis of several faults also discussed.



#### **FACULTY PUBLICATIONS**

- ➤ Vasim Babu M, V., Kumar, C. N. S. V., Parthiban, S., Padmavathi, U., & Rahman, M. Z. (2022). AE-Leach: An incremental clustering approach for reducing the energy consumption in WSN. *Microprocessors and Microsystems*, *93*, 104602. https://doi.org/10.1016/j.micpro.2022.104602
- Santhosh Kumar, P., Kamath, R. N., Boyapati, P., Joel Josephson, P., Natrayan, L., & **Daniel Shadrach, F.** (2022). IOT Battery Management System in electric vehicle based on LR parameter estimation and ORMeshNet Gateway topology. *Sustainable Energy Technologies and Assessments*, 53, 102696. https://doi.org/10.1016/j.seta.2022.102696

- Kandasamy, S. K., Maheswaran, S., Karuppusamy, S. A., Indra, J., Anand, R., Rega, P., Kavitha, A., Immanuvel Arokia James, K., Nehru, K., & Kathiresan, K. (2022). Design and fabrication of flexible Nanoantenna-based sensor using graphene-coated carbon cloth. *Advances in Materials Science and Engineering*, 2022, 1–7. https://doi.org/10.1155/2022/2265904
- ➤ Sathishkumar, N., Nandalal, V., & Natarajan, R. (2022). Design of a compact double-square-ring-shaped dual-band antenna for WiMAX/WLAN applications. *Wireless Personal Communications*. https://doi.org/10.1007/s11277-022-10032-5
- Soundararajan, Rajasoundaran, **Maheswar Rajagopal**, Akila Muthuramalingam, Eklas Hossain, and Jaime Lloret. 2022. "Interleaved Honeypot-Framing Model with Secure MAC Policies for Wireless Sensor Networks" *Sensors* 22, no. 20: 8046. https://doi.org/10.3390/s22208046
- Divya K, **Maheswar R**, Jayarajan P, "Mitigation of E2E Delay in LF-IEHM Routing Protocol for Underwater Acoustic Wireless Sensor Networks", Ad Hoc & Sensor Wireless Networks, Old City, November 2022 (IF: 0.4). https://www.oldcitypublishing.com/journals/ahswn-home/ahswn-issue-contents/ahswn-volume-53-number-3-4-2022/20888-2/
- Ramprasath, J., Krishnaraj, N., & **Seethalakshmi, V.** (2022). Mitigation services on SDN for distributed denial of service and denial of service attacks using Machine Learning Techniques. *IETE Journal of Research*, 1–12. https://doi.org/10.1080/03772063.2022.2142163
- Deepa, S., Sridhar, K. P., Baskar, S., Mythili, K. B., **Reethika, A.**, & Hariharan, P. R. (2022). IOT-enabled Smart Healthcare Data and health monitoring based machine learning algorithms. *Journal of Intelligent & Fuzzy Systems*, 1–15. <a href="https://doi.org/10.3233/jifs-221274">https://doi.org/10.3233/jifs-221274</a>
- Sharmila A, Rajasekar L, **K S Tamilselvan**, Bharani N and Krishnaraj R, "Automatic Soil Quality Analyser for Enhancing Agriculture with IoT", Indian Journal of Natural Sciences, Vol.13, Issue 73, August 2022, pp 47323-47329.

#### FACULTY CONFERENCE PUBLICATION

- ➤ Vasim Babu M, "A Novel Efficient AI Based EEG Workload Assessment System using ANN-DL Algorithm", *International Conference on Paradigms of Communication, Computing and Data Sciences (PCCDS 2022)*, July 5-7, 2022.
- ▶ **K. Saravanan**, E. Siva Prasanna, R. Sattish, R. Udhaya Abinesh and P. Anandakumar, "Automatic Floor Cleaning Robot," 2022 IEEE International Conference on Data Science and Information System (ICDSIS), 2022, pp. 1-5, doi: 10.1109/ICDSIS55133.2022.9915986., July 29-30, 2022.
- **Kathirvelu M**, Janaranjani, A., Navin Pranav, A. T., & Pradeep, R. "Voice Recognition Chat bot for Consumer Product Applications", *IEEE International Conference on Data Science and Information Systems* (*ICDSIS-2022*), July 29-30, 2022. https://doi.org/10.1109/icdsis55133.2022.9915884
- ➤ **S Gunanandhini**, M Kalamani, M Bhagavathipriya, S Guru prasath, "Wavelet based Video Compression techniques for Industrial monitoring applications", *Journal of Physics: Conference Series* 2272 (2022) 012019, *IOP Publishing*, doi:10.1088/1742-6596/2272/1/012019.
- ➤ Ram Nivas D, "Plant Health Monitoring System and Smart Gardening using IoT", *IEEE International Conference on Data Science and Information Systems (ICDSIS-2022)*, July 29-30, 2022.

- ➤ Vasim Babu M, Madhusudhan Reddy M, Vinoth Kumar C, Ramasamy R, Aishwarya B, "Swarm Intelligence based Clustering and Routing Using AISFOA-NGWO for WSN", *IEEE International Conference on Intelligent Systems*, September 5-6, 2022.
- ➤ **D Venugopal,** Dhanush, Naresh kumar, Jaya Shankar, "Experimental analysis on design and implementation of steam oven using copper tubes for heating applications" Materials Today: proceedings, Vol 66, Part 3, 2022, PP 1183 1188.
- Mohammad Sarwar Raeen, Anveshkumar Nella and **Rajagopal Maheswar**, "A THz Tuned Plasmonic Material Absorber in Visible Light Spectrum for Low Power Devices", Wireless, Antenna and Microwave Symposium (WAMS), IEEE, June 2022. https://ieeexplore.ieee.org/document/9848234
- T. V. J. Rao, **R. Arun Sekar**, B. Drakshyani, P. K. Chakravarthi, N. Kumareshan and S. P. Karthi, "IOT based Smart solution for Traffic congestion at Metro Cities," 2022 *International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems* (ICSES), 2022, pp. 1-6, doi: 10.1109/ICSES55317.2022.9914174.
- N. M. Mendhe, S. D and **Ramesh. S. M**, "Artificial Intelligence-based Web-Centric E-health Monitoring System," 2022 *International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems* (ICSES), 2022, pp. 1-5, doi: 10.1109/ICSES55317.2022.9914101.
- M. S, D. A, S. **Finney Daniel**. Shadrach and K. Vijayakumar, "Optimization techniques for reducing the emissions through interconnected cars," 2022 *International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems* (ICSES), 2022, pp. 1-5, doi: 10.1109/ICSES55317.2022.9914354.
- R. P. R, P. R, Finney Daniel Shadrach, A. R, E. M. J and R. Nirmalan, "Diabetic Retinopathy Detection Using Retinal Fundus Picture and Image Enhancement Using Fuzzy Clustering," 2022 *International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems* (ICSES), 2022, pp. 1-7, doi: 10.1109/ICSES55317.2022.9914296.
- V. Nivedita, M. Balakrishnan, **Finney Daniel** Shadrach, L. J. J. A. Obulesh and R. Cristin, "DBN with a Developed Version of Thermal Exchange Optimization (TEO) Model for Skin Cancer Detection and Classification," 2022 *International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems* (ICSES), 2022, pp. 1-7, doi: 10.1109/ICSES55317.2022.9914009.
- M. K. B, M. S. Kumar, **Finney Daniel** Shadrach, S. R. Polamuri, P. R and V. N. Pudi, "A binary Bird Swarm Optimization technique for cloud computing task scheduling and load balancing," 2022 *International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems* (ICSES), 2022, pp. 1-6, doi: 10.1109/ICSES55317.2022.9914085.
- ▶ M. Singaram, A. Pramodh, P. J. Harini, R. Praveen, S. Hari Pranav and K. Vijayakumar, "IOT based LED Electronics board," 2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES), 2022, pp. 1-5, doi: 10.1109/ICSES55317.2022.9914315.
- M. Bharath, **J. Indra** and S. Kirubakaran, "Design and Development of Virtual Lab Environment for Embedded System and IoT Applications," 2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES), 2022, pp. 1-6, doi: 10.1109/ICSES55317.2022.9914369.
- B. Barath Kumar, C. N. S. Vinoth Kumar, R. Suguna, **M. Vasim Babu** & M. Madhusudhan Reddy, "An Implementation Perspective on Electronic Invoice Presentment and Payments", Third International Conference on Image Processing and Capsule Networks pp 664–671, https://link.springer.com/chapter/10.1007/978-3-031-12413-6\_52

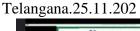
- Archana and **Kalirajan K**, "A survey of medical image processing and Applications", 4<sup>th</sup> international conference on Inventive Research in Computing applications", 21-23 September 2022.
- ➤ Ishwarya, Eswaramurthy, Gayathree, **Ram Nivas**, "An survey on higher order majority gates utilized in novel Quantum Dot Cellular Automata Technology (QCA)", in International Conference on Augmented Intelligence and Sustainable systems, 24-26 November, 2022
- ➤ V.Seethalakshmi, R.Vijaya, J.Pavithra, C.Jency, Sakena Benazer S, Pooja Jha, "Machine Learning approaches for detecting epileptic seizures based on EEG signals", in 2022 IEEE 2<sup>nd</sup> Mysore Sub Section International Conference (MysuruCon) on 16 17, October 2022
- Vidhya N, **Seethalakshmi V**, Monisha R, Dhanasekar J, Gurunathan V, "Coherent Data Transmission Using Multiplexing for a DWDM Communication System", in 2022 IEEE 2<sup>nd</sup> Mysore Sub Section International Conference (MysuruCon) on 16 17, October 2022
- ➤ S.Nithya, T. Jagadesh, E. Shalini, T. Sathyapriya, V. V. Teresa "Design and Development of movable antenna system for multiplatform wireless communication", in 2022 IEEE 2<sup>nd</sup> Mysore Sub Section International Conference (MysuruCon) on 16 17, October 2022
- ➤ Venkatesh, T., Chakravarthi, R. (2023). An Effective and Secured Routing Protocol Based on Cluster Head in WSN. In: Tiwari, S., Trivedi, M.C., Kolhe, M.L., Singh, B.K. (eds) Advances in Data and Information Sciences. Lecture Notes in Networks and Systems, vol 522. Springer, Singapore. https://doi.org/10.1007/978-981-19-5292-0\_43

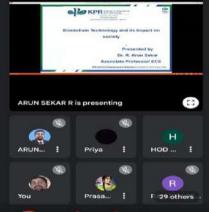
#### **FUNDING DETAILS**

Received Conference grant on "Recent trends in Artificial Intelligence Advanced Communication and Smart Systems (RTAACS) with sanctioned Amount of **Rs.2.62Lakhs**(Coordinators: Dr. D.Venugopal, Mr. T. Venkatesh)

## FACULTY AS RESOURCE SPEAKER

Dr.R.Arunsekar, Associate Professor, Department of ECE, KPR Institute of Engineering and Technology as resource person as "Blockchain Technology and its impact on society "organised by Siddhartha Institute of Technology & Sciences, Peerzadiguda, Hyderabad,

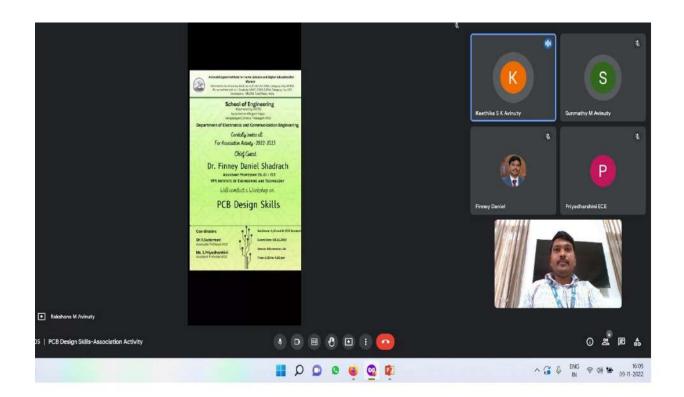






Mr.G.K.Jakir Hussain, Assistant Professor (SL.G), Department of ECE, KPR Institute of Engineering and Technology as resource person as "Constitution Day" organised KPR Institute of Engineering and Technology 25.11.2022.





➤ Dr.S.Finney Daniel Shadrach, Assistant Professor (SL.G), Department of ECE, KPR Institute of Engineering and Technology as resource person as "PCB Design Skills" organised Avinashilingam School of Engineering 09.11.2022.

## **FACULTY PARTICIPATION**

Name of the Faculty	Title of FDP/STTP/OFDP/ Conference/Online Course	Organization Name	Start Date	End Date
Mr.D.Ram Nivas	A Survey of Various Higher Order Majority Gates Utilized in Novel Quantum Dot Cellular Automata Technology(QCA),	International Conference on Augmented Intelligence and Sustainable Systems(ICAISS – 2022),	11/24/2022	11/24/2022

Ms.S.Suganyadevi	A machine learning method for detecting sarcasm in negative sentiment tweets using hyperboles	IEEE North Karnataka Subsection Flagship International Conference "NKCon- 2022" in association with IEEE Bangalore Section and IEEE ITS Bangalore Chapter	11/20/2022	11/20/202
Ms.S.Suganyadevi	Emerging Trends in Electronics and Computer Engineering	N S Raju Institute Of Technology	10/27/2022	10/29/202
Dr.J.Prasad	Six Days FDP Ec8005 - Electronics Packaging And Testing	KPR Institute Of Engineering And Technology - Coimbatore	7/25/2022	7/30/2022
Dr.B.Jaishankar	Accreditation and Outcome based education	NPTEL	8/1/2022	11/30/2022
Ms.S.Suganyadevi	Al and Metaverse	Future Skills Prime	11/1/2022	12/2/2022
Dr.S.M.Ramesh	Introduction To Internet Of Things	NPTEL	7/18/2022	10/15/2022
Dr.R.Arun Sekar	Accreditation and Outcome Based Learning	Swayam	10/1/2022	11/20/202
Dr.D.Selvakumar	Fundamentals of Micro and nanofabrication	Swayam	25.10.2022	30.10.2022
Dr.D.Selvakumar	Physics of renewable Energy Systems	Swayam	25.10.2022	30.10.2022
Dr.KB.Gurumoorthy	Accreditation and Outcome based education	NPTEL	8/1/2022	11/30/2022
Dr.K.Gurumoorthy	Accreditation and Outcome based education	FDP	8/1/2022	11/30/202
Dr.K.Murugan	Accreditation and Outcome based education	NPTE	8/1/2022	11/30/2022
Mr.G.Pradeepkumar	Design Thinking-A Premier	NPTEL	01.08.2022	30.09.2022

Dr.J.Prasad	System Design Through Verilog	NPTEL	01.07.2022	30.09.2022
Mr. T Jagadesh	Accreditation and Outcome based education	NPTEL	8/1/2022	11/30/2022

# STUDENT ACHIEVEMENT

S.No	Name of the Student	Year	Title of the Event	Organized by (Name of College and Club)	Prize - Merit Position
1	Danisha B.R	II year	Dance	Anna University Regional campus, Coimbatore	First Prize
2	Akash D	II year	Project contest (I- Bizzthon)	KPR College of arts and science, Coimbatore	Second Prize
3	Srivishnu K	III year	Paper presentation	Sahyadri College of engineering	First Prize (Cash Prize 2K)
4	Lalith	III year	Paper presentation	Sahyadri College of engineering	First Prize (Cash Prize 2K)
5	Madhavan	III year	Paper presentation	Sahyadri College of engineering	First Prize (Cash Prize 2K)
6	Lalith	III year	Drone racing	Sahyadri College of engineering	Second Prize (cash prize 10K)
7	Madhavan	III year	Drone racing	Sahyadri College of engineering	Second Prize (cash prize 10K)
8	Madhavan	III year	Drone racing	Indian institute of space science and technology, trivandrum	Second place (cash Prize 12k)
9	Lalith K	III year	Drone racing	Indian institute of space science and technology, trivandrum	Third prize (cash prize 8k)
10	Raagul S	II year	Drone racing	Indian institute of space science and technology, trivandrum	Third prize (cash prize 8k)

11	Naresh R	II year	Drone racing	Indian institute of space science and technology, trivandrum	Third prize (cash prize 8k)
12	Ragupathi R	II year	Drone racing	Indian institute of space science and technology, trivandrum	Third prize (cash prize 8k)
13	Ranjith Kumar	II year	Drone racing	Indian institute of space science and technology, trivandrum	Third prize (cash prize 8k)
14	Siddharth	II year	Sports	Anna University zonal tournament (Tennis)	Third prize
15	Vikram	II year	Sports	Anna University zonal tournament (Tennis)	Third prize

# PLACEMENT DETAILS 01.11.2022 to 30.11.2022

S.No	Name of the Student	Name of the Company
1.	Aadhithya V	Cognizant
2.	Aswin Suriya S	Cognizant
3.	Darshini R	Cognizant
4.	Harsshini S	Cognizant
5.	Nigill J K	Cognizant
6.	Surendhran P	Cognizant
7.	Duraiselvi M	Cognizant
8.	Dhanush Azhagar T	V Dart Technologies
9.	Chandramohan S	Genpact
10.	Harsshini S	Genpact
11.	Keerthana V	Genpact
12.	Kowsikan S	Genpact
13.	Nigill J K	Genpact
14.	Pandeswari S	Genpact

15.	Pranesh Raja V	Genpact	
16.	Sairanjan S	Genpact	
17.	Sakthivel S	Genpact	
18.	Srinivasan S	Genpact	
19.	Udaya Keerthi Vs	Genpact	
20.	Vaideesh N	Genpact	
21.	Vidhyapathi N	Genpact	
22.	Vinith Kumar S	Genpact	
23.	Amrith B	Tata consultancy Service	
24.	Mathu Shree P	Tata consultancy Service	
25.	Udaya Keerthi Vs	Tata consultancy Service	
26.	Vidhyapathi N	Tata consultancy Service	
27.	Mallisri Devadharshi <mark>ni M</mark>	ABB	
28.	Duraiselvi M	ABB	

**Total Number of students Placed:112** 

**Total Number of Offers: 242** 

**Total Number of Companies Visited: 30** 

# **IIPC ACTIVITIES**

#### **INDUSTRY VISITS**

- ➤ Dr.B.Jaishankar and Mr.T.Jagadesh visited Enthu Technology Solutions Pvt. Ltd. on 24/11/2022 and discussed about curriculum development and received feedback on curriculum for BoS.
- ➤ Dr.B.Jaishankar and Mr.T.Jagadesh visited Fulfill Electric Corporation on 24/11/2022 and discussed about curriculum development and received feedback on curriculum for BoS.
- ➤ Dr.B.Jaishankar and Mr.T.Jagadesh visited Chip Crafts on 24/11/2022 and discussed about curriculum development and received feedback on curriculum for BoS.
- ➤ Dr.B.Jaishankar and Mr.T.Jagadesh visited Wireline Solutions Pvt. Ltd. on 24/11/2022 and discussed about curriculum development and received feedback on curriculum for BoS.

#### **CONSULTANCY ACTIVITIES**

➤ Heat pump from V-Guard for R&D purpose is sent back to industry for further actions and follow up.



> PCB boards for Fulfill Electric Corporation for display control applications developed successfully.

