KPR Institute of Engineering and Technology
(Autonomous)
Avinashi Road, Arasur, Coimbatore - 641 407

LEARN BEYOND

Department of Electronics and Communication Engineering

(Accredited by NBA)

NEWSLETTER-OCTOBER 2020 ISSUE

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➢ Vision

To be a department of repute for learning and research with state-of-the-art facilities to enable the students to succeed in globally competitive environment

➢ Mission

- To impart knowledge and skill based education with competent faculty striving for academic excellence
- To instill research centres in the field that industry needs, by collaborating with organizations of repute
- To provide ethical and value based education by promoting activities addressing the societal needs and facilitates lifelong learning

➢ Programme Educational Objectives

- **PEO 1:** Graduates will possess an adequate knowledge and have successful technical career in Electronics and Communication Engineering or related fields
- **PEO 2:** Graduates will possess leadership qualities and demonstrate professional and ethical values
- **PEO 3:** Graduates will continue their life-long professional development through higher education or entrepreneurship

EVENT ORGANISED

- The Electronics and Communication Engineering Department has inaugurated the students association “SPARTRANZ’20” on 17.10.2020. Dr.M.Kathirvelu, Professor& Head/ECE gave welcome address. Presidential address was given by Dr.M.Akila Principal. Mr.J.Velayudham, Senior-Technical Specialist, Alactel-Lucent Enterprise, Chennai, Tamilnadu, India was the chief guest for the function. He has delivered the special address on that day regarding the strength of students association and how it can be used for enhancing the technical knowledge of the students. Mr.P.Koushik, Presidential Representative presented the list of activities planned in this academic year.

- The students association “SPARTRANZ’20” of Electronics and Communication Engineering Department has conducted a farewell for 2016-2020 batch on 17.10.2020 in ECE seminar hall. Around 85 students from this batch has attended this farewell function. Dr.N.Rajeshkumar, Associate Professor /ECE has given the welcome address. Presidential address was given by Dr.M.Kathirvelu Professor & Head/ECE. Dr.M.Akila Principal has given the felicitation address. Students of 2016-2020 batch shared their memories about their college days. Mr.Finney Daniel Shadrach, Assistant Professor/ECE gave vote of thanks.

KPR Institute of Engineering and Technology

Learn Beyond (Autonomous, NAAC "A")

Avinashi Road, Arasur, Coimbatore.

Department of Electronics and Communication Engineering

SPARTRANZ (ECE Students Association)

Cordially invites you all for the

Farewell Meet

(2016 - 2020 Batch)

on 17.10.2020 @ 10.30 a.m.

Venue: ECE Department

Kindly adhere to COVID - 19 SOP

Wear Mask I Maintain Social Distance I Wash Hands frequently

- The department of ECE organised an AICTE-AQIS sponsored Short Term Training Program (STTP) on "Integrative Internet of Things and Deep Learning for Smart Healthcare (Series-I)" from 19th October 2020 to 24th October 2020. Session speakers are eminent experts from industry, R&D institutes, renowned universities and institutes. Total of 60 participants attended the STTP. The participants were given insights about IoT application development for healthcare with enhanced IoT security and developed knowledge to use deep learning efficiently to power the IoT-based applications for smart healthcare. The participants were faculty, research scholars, postgraduate students of engineering colleges recognized by AICTE, New Delhi and. The participants learned to train Convolutional Neural Networks(CNN) to develop deep learning architecture for medical data processing and treatment planning. The participants were given insights about LoRaWAN communication and implementation of IoT based devices in industries.

- The Department of Electronics and Communication Engineering and Career Advancement Cell (CAC) of KPR Institute of Engineering and Technology organized a webinar on "Importance of GATE for Electronics Engineers" on 31.10.2020. The program is targeted for final year and pre-final year ECE students who are interested to go for PSU, other government jobs, and higher studies through GATE exam. The resource person Mr.C.Pradeepis a Scientist Engineer-SD working in ISRO-NRSC, Hyderabad. National Remote Sensing Centre (NRSC) at Hyderabad is responsible for remote sensing satellite data acquisition

and processing, data dissemination, aerial remote sensing and decision support for disaster management. NRSC is also engaged in executing remote sensing application projects in collaboration with the users. The resource person areas of interest include Remote sensing, and Data acquisition & processing. The webinar exposed the participants to know about the importance of GATE and other competitive exams in India.

FACULTY PUBLICATIONS

- T.Jagadesh, K.Balamurugan, S.Vivekanandan, C.J.Vignesh, V.Kamalkumar, “Design and Analysis of Power Efficient 3-Tap FIR Digital Filter Using Folding Architecture”, International Journal of Future Generation Communication and Networking, Vol.3, no.4, pp.1436-1442, October 2020. **(WoS)**
- R. Sowmya, J.Rejina Parvina, S. Gokul Kumar, A. Elakya, K. Priyadharsini, “Nickel material based battery life and vehicle safety management system for automobiles”, Elsevier-Materials today Proceedings, October 2020. **(Scopus)**

FACULTY AS RESOURCE SPEAKER

- Dr.N.Rajesh Kumar,Associate Professor,Department of ECE, KPR Institute of Engineering and Technology was designated as resource person for a webinar titled “Aacham Thavir – Aalumai Kol” which was organized by NV Matriculation Higher Secondary School, Pethapampatti, Udumalpet. The webinar was organised for the

benefit of school students from 9th to 12th Standard in the institution through online mode of conduct on 02.10.2020.

- Mr.S.Satheesh Kumar, Assistant Professor from the Department of ECE, was designated as the Resource Person for the Department Advisory Board Meeting for the Department of ECE at Dr.N.G.P. Institute of Technology, Coimbatore on 4th October 2020. He focused on the key elements such asconducting Virtual Labs, post covid practices to be followed inside the campus, DST proposals and alumni activities. In the event, KMCH management, Department faculty members, students and parents took part and got benefited.

- Mr.K.Siddharthraju, Asst.Prof (Sr.G)/ECE, was designated as the Resource Person for an STTP on Integrative Internet of Things and Deep Learning for Smart Healthcare, conducted by KPR Institute of Engineering and Technology, Coimbatore on 23.10.2020. The session started with an introduction to Internet and Things. The session addressed the present healthcare scenarios and the research challenges in the sector. The discussion covered the need for Internet of Things in the healthcare sector and its endless possibilities. The session demonstrated the initial setup procedures of Raspberry Pi 3 Model and the basic commands in the terminal window inorder to make the board ready for programming. A live demo on LED blink, Blinking LED using a switch and through Internet with MQTT protocols were demonstrated lively. The programming concepts associated was explained. Participants were highly benefitted through the hardware setup and the live demo session.

FACULTY INTERNSHIP

Name of the Faculty	**Name of the Industry/Organization**	**subject/area**	**Start Date**	**End Date**
Dr.B.Jaishankar	Entuple Technologies	VLSI	14-09-2020	30-10-2020

FACULTY PARTICIPATION

Name of the Faculty	FDP/STTP/OFDP/ Workshop Title	Organization Name	Start Date	End Date
Ms.M.Supriya	Full Custom and Semi Custom IC Design Flow using Cadence EDA Tool	Kongu Engineering College	02-10-2020	03-10-2020
Mr.T.Shanmugaraja	Full Custom and Semi Custom IC Design Flow using Cadence EDA Tool	Kongu Engineering College	02-10-2020	03-10-2020
Ms.M.Supriya	Integrative Internet of things and deep learning for smart healthcare(series - 1)	KPR Institute of Engineering and Technology	19-10-2020	24-10-2020
Mr.G.K.Jakir Hussain	Integrative Internet of things and deep learning for smart healthcare(series - 1)	KPR Institute of Engineering and Technology	19-10-2020	24-10-2020
Ms.M.Supriya	Cyber Security	AICTE Training And Learning (ATAL)	05-10-2020	09-10-2020
Mr.T.Shanmugaraja	Cyber Security	AICTE Training And Learning (ATAL)	05-10-2020	09-10-2020
Mr.M.Singaram	Flexible and Wearable Antennas: Recent Advancements, Fabrication Techniques and Applications	AICTE Training And Learning (ATAL)	12-10-2020	16-10-2020

PRODUCT DEVELOPMENT
SIG: MULIBAND COMMUNICATION
WELCOME ROBOT

A robot is a mechanical or virtual agent, usually an electromechanical machine that is guided by electronic circuitry. Robots have replaced humans in the assistance of performing those repetitive tasks which humans prefer not to do, or are unable to do.

The welcome robot that is designed by Multiband SIG team performs the repetitive task of welcoming people graciously both by a sweet recorded message and hand gesture representing “Namaste” – an Indian traditional method wishing of people. Usually when we invite people to home, office, marriage functions or parties etc., we need to assign a person to receive them and greet at the entrance. If this greeting is to a limited amount of people then the task appears simpler. But if it is to greet hundreds or thousands of people, then the task

appears amalgam and lackluster because the person has to wait for hours and repeat the same process of wishing with affection and enthusiasm carrying a broad smile.Hence we tried to simplify the complexity by developing a robot which could stand at the doorway and wish each and every person within its vicinity

The service robot acts as a host in receiving people and greets with “Vanakkam-Welcome to KPR”and performs the same task for hours without getting weary. When the people departs, it greets with “Thank you”. This is a low cost flexible robot which can be designed and constructed without difficulty.

Project Team

1. Dr.V.Seethalakshmi
2. Mr.G.K Jakir Hussain
3. Ms.S.Nithya
4. Ms. K.Kayathiri Devi
5. Ms.R.Aswatha
6. Ms.S.Gunanandhini