

# Encircle

**VOL 9 JUNE 2022** 

## **NEWS & EVENTS**

**Dept. OF Electronics & Communication Engineering** 



VIDYA ACADEMY OF SCIENCE AND TECHNOLOGY THALAKKOTTUKARA, THRISSUR



#### Vision

"To be a centre of excellence in electronics and communication engineering through valuebased education and research"

#### Mission

- M1: To provide students state-of-the-art academic ambience for quality education.
- M2: Facilitate interdisciplinary learning, industry interactions and research initiatives for long-term career development goals.
- M3: To educate and mentor students on professional responsibilities, ethical values, and lifelong learning.

## From Principal's Dosk



Vidya education system strives to integrate the culture of quality education with moral and ethical values. In line with the vision of the institution, the Department of Electronics & Communication Engineering has been at the forefront in undertaking various activities for the benefit of our students. It is a matter of great pride and satisfaction to see that the department is bringing out another edition of the Newsletter "EnCirclE". The Newsletter also reflects the achievements of the department.

I extend my hearty appreciation to ICoD-ECE, the staff members, and the department's Students for their fruitful effort.

With Best Wishes Dr. Saji C B Principal-VAST



## From HoD's Desk

The department of Electronics and Communication Engineering always initiates to inculcate the qualities that are required and acceptable by engineering society. It is very fortunate that we have dedicated teachers, committed technical staff, and young budding students who always try to yield the best outcomes. The team has always been consistent in the improvement of its academic, placement, and value systems to meet the changing demand of the industry as well as of the stakeholders.

It gives me great pleasure to congratulate ECE students, teachers, and staff who contributed to the publication of another volume of the "EnCirclE" newsletter. Their hard work, dedication, and perseverance are the important traits that lead to success. I inspire all students to use the opportunities provided by the institute and involve themselves in all the extra-curricular activities for their success.

The enthusiasm of every individual shall continue to strive for further heights.

We are thankful to our Management and Principal for their support and encouragement.

Dr. S. Swapna Kumar Professor and Head Department of ECE

#### Pudukkad MLA congratulates Devika for getting full marks in KTU examination

s. Devika(2017-2021Batch), who secured SGPA 10 in the seventh semester B Tech examinations, was felicitated by Mr K K Ramachandran, Hon'ble Puthukkad MLA, at her residence in Rappal, Puthukkad



#### ECE faculty members serve as resource persons in KTU sponsored online FDP

Mr. Ramesh C R and Mr. Rakesh V S (Asst Professor) served as the resource persons in the APJ AKTU sponsored five day online FDP on "Embedded Systems and IoT in Biomedical Applications" organized the Department of Biomedical Engineering, Sahrdaya College of Engineering and Technology, Kodakara during 12 – 16th July 2021. They handled sessions on PIC microcontrollers, assembly language programming and peripheral programming.

#### **HoD creates video on environment for Poonithura Public Library**

Dr S. Swapna Kumar (Prof and Head) created a video as part of the observance of the World Environment Day this year. He created the video as a contribution to Poonithura Public Library, Maradu, Kochi. The video was prepared at home by recording scenes in the surroundings and then adding background music.



#### MLA felicitates Ms. Aleena for perfect 10 SGPA in S7 B.Tech exams



Mr. A. C. Moideen, Hon'ble Kunnamkulam MLA, was a surprise visitor in the home of Aleena K B(2017-2021), a S8 B Tech student of Vidya. The Hon'ble MLA had personally come to her home to congratulate and felicitate Ms. Aleena on her outstanding performance of getting a perfect 10 SGPA in the recently published results of the end semester university examinations of S7 B. Tech students.

#### M Tech (Embedded Systems) student presents paper in International Conference

Ms. Devikrishna (S2 M Tech – Embedded Systems) presented a paper entitled "Automatic Touchless Holy Water and Sandal Paste Dispenser" in the International Conference on Recent Trends in Communication and Embedded System Technologies 2021 (ICRCET'21) organized by Dept. of ECE, Christ College of Engineering, Irinjalakuda during 13-15 July 2021. The paper was co-authored by Mr. Ramesh C R (AP, ECE Dept.)





#### Our students create a smart receptionist!

A virtual receptionist is an automated reception system that takes the role of a receptionist and guides the incoming visitors by queuing them to their respective destinations or officials by showing route maps with the help of touch screen color panel and voice generation. A group of ECE students of Vidya, under the guidance of Dr S. Swapna Kumar (Prof and Head) and Mr. Ramesh C R (AP) created a demonstration model of a virtual receptionist as part of their final year project. They called their project "Smart Receptionist". The students involved in the project were Salax Sunny, Soniya Raju, Joseph J Kulathingal, and Malavika Nair.

#### Students develop a smarter way to grow ornamental fish

A team of ECE students, as part of their final year project, developed a low cost system for real time monitoring of the water quality using IoT (internet of things). The system consisted of several sensors used to measure physical and chemical parameters of water. The parameters such as temperature, pH value, turbidity, etc were measured using sensors. The measured values are processed by a core controller. The Arduino model was used as a core controller. Finally, the sensor data could be viewed on internet using Wi-Fi system. The project was developed by Shebin P Mohan, Sanjay P Purushothaman, Anjali N S and Gopika Menon under the leadership of Dr. S. Swapna Kumar (Prof. and Head) Ms. Divya Unni and Dr. Jeeva K A guided the project.



#### Congratulations to our alumna for receiving Chief Minister's Student Talent Award

Aiswarya Sivadas and Arsha Nandan, a Vidya alumna of the 2021 pass out batch, has been awarded the Chief Minister's Student Talent Award-2022 in recognition of her meritorious achievement in under-graduate examination conducted by APJAKTU during the academic year 2020-21. The award was presented in a function presided over Chief Minister of Kerala Sri. Pinarayi Vijayan held at the Senate Hall of the Kerala University on 23 <sup>rd</sup> March 2022. Finance Minister N. Balagopal and Vice Chancellors of various universities in the State attended the function.

#### Research Supervisor of APJAKTU

The APJKTU has approved Dr. S. Swapna Kumar (Prof and Head) as Research Supervisor of the University in the area of Electronics and Communication Engineering.

Profile of Dr. S. Swapna Kumar Areas of special interest include wireless sensor networks, data communication, mobile computing, artificial neural networks, fuzzy logic, cross-layer optimization and MATLAB. Publications include 11 papers in international journals, 14 papers in national papers, 16 papers in national and international conferences.

Books published:

- A Guide to Wireless Sensor Networks
- MATLAB Easy Way of Learning
- LaTeX-A Beginner's Guide to Professional Documentation



#### Anjana P of B Tech receives Sunny Diamonds Outsparkle Award

Anjana P, student of B Tech (ECE) 2021 passout batch, received the award instituted by Sunny Diamonds, a leading diamond trading group for her outstanding academic and extracurricular activities. The award was given in recognition of excellence in the B Tech examination, representation of Kerala in the NSS Pre-Republic Parade and excellence in other extracurricular activities. Sunny Diamonds Director of Operations Mr Prem Sunny presented the award at a ceremony held at the Corporate Office of Sunny Diamonds.



#### ECE Dept. Association activities inaugurated



The ECE Dept. officially inaugurated the Department Association activities on 9 December 2021 with a host of cultural events. The program was inaugurated by Principal Dr. C B Saji and the Presidential address was delivered by Dr. S. Swapna Kumar (HoD ECE). The function was graced by the presence of a special guest Ms. Neelima M Menon, alumna of the 2017 B Tech (ECE) passout batch, along with Ms. Anjana P, best outgoing student of Vidya in 2021, and Mr. Nirmal Bino. NSS National Award winner. The students performed several cultural events.

#### **Volume 8 of ECE Dept's "Encircle" released**

The Volume 8 of "Encircle", an annual newsletter published by the Department of Electronics and Communication Engineering, was released on 7th October 2021. The newsletter highlights all the events and achievements of staff and students in the Department.



#### M. Tech (ES) student publishes paper in TIDEE

Ms. Rifa P Musthafa, student of M. Tech (Embedded Systems) 2019-21 batch, jointly with Mr. Rakesh V S (AP, ECE Dept.) and Dr. S. Swapna Kumar (Prof and Head, ECE Dept.), published a paper titled "Detection of COVID 19 Environmental Cases Using Deep Learning" in TERI Information Digest on Energy and Environment (TIDEE) Vol 20 (2), pp.155-165.



#### Vidya faculty members serve as resource persons in St. Mary's College, Thrissur

Vidya faculty members Mr. Alex Chacko C (AP- ME) and Mr. Ramesh C R (AP- ECE) served as resource persons in an event held on 2 March 2022 as part of the Platinum Jubilee Celebrations "SPARSHAM" of St Mary's College, Thrissur. Mr. Alex Chacko delivered a talk on "Success is a Habit" and Mr. Ramesh C R on "Trends in Technology".

## Faculty members served as resource persons in AICTE sponsored national FDP at Govt. Women's Polytechnic College, Nedupuzha

Mr. Ramesh CR and Mr. Rakesh VS (Asst. Professors, ECE) served as the resource persons in the 5 days online National Faculty Development Programme on "Robotics & Automation" sponsored by AICTE Training And Learning (ATAL) Academy. The FDP was organized by the Department of Computer Engineering, Government Women's Polytechnic College, Nedupuzha, Thrissur to the teachers of AICTE approved institutions during 6th to 10th, September'2021.



Technical lectures along with hands-on were handled for 17 continuous sessions during 6th September to 10th September on the topics "Open source embedded product development tools for Robotics programming, Sensor and End-Effector interfacing in Robotics, Speed and Direction control of wheeled robots and UiPath Tools for developing Robotic and Automation Process (RPA) based applications.



#### Students create a smart receptionist!

A virtual receptionist is an automated reception system that takes the role of a receptionist and guides the incoming visitors by queuing them to their respective destinations or officials by showing route maps with the help of touch screen color panel and voice generation. A group of ECE students of Vidya, under the guidance of Dr S. Swapna Kumar (Prof and Head, ECE Dept) and Mr. Ramesh C R (AP, ECE Dept) created a demonstration model of a virtual receptionist as part of their final year project. They called their project "Smart Receptionist". The students involved in the project were Salax Sunny, Soniya Raju, Joseph J Kulathingal, and Malavika Nair.





#### Our alumnus interacts with S2 students

The ECE Dept. conducted an online Alumni Talk on "Pathway to Your Bright Future" for second semester students of the Dept. on 19th April 2022 via Google Meet. The distinguished alumni who interacted with the students was Mr. Rahul Vincent, a student of the 2020 pass out batch of B Tech (ECE), who is working as Chief Technology Officer, Estro Tech Robotics & Innovations Dr. S. Swapna Kumar (Prof and Head, ECE Dept.) welcomed the resource person and gave a brief introduction to the programme. The programme was aimed at creating awareness about the different areas that the students could get themselves involved along with regular academic activities. The resource person emphasized the importance of scoring good marks, doing small projects, making paper presentations etc. He explained the procedures to get internships in reputed universities and companies. He motivated the students to prepare for GATE, GRE and other competitive exams. He concluded with the observation that by going in a systematic way, all students could get placement in good companies.

#### **Department secures first place in ADVIKA 2022**

In the Vidya Arts fest Advika 22 conducted on 12<sup>th</sup> and 13<sup>th</sup> of May 2022, our students bagged the overall championship with 270 points. The mega event was officially inaugurated by Mr. Dev Mohan (Cine Artist and an alumnus of Vidya) on 12<sup>th</sup> May 2022 at Pranavam Auditorium. The inaugural ceremony was attended by Dr Saji C B (Principal), Mr Diljith Muchiruparambil (Senate Chairman), Mr. Bijith K V (Arts Secretary), Ms. Nisha Valsan (PTA President), Heads of Depts, faculty members, staff and students.



#### S3 B Tech students complete Coursera course on Python

39 students from S3 B Tech ECE-B successfully completed the online course titled "Programming for Everybody (Getting Started with Python)" authorized by University of Michigan and offered through Coursera, under the guidance of Dr. Ramani Bai V (Prof and Head, CSE Dept).

#### Second volume of Department's technical magazine released

The Department of ECE released the second volume of the Dept's technical magazine christened "WISSEN" on 1<sup>st</sup> February 2022. The first volume was released on 31<sup>st</sup> March 2021.



#### ECE alumnus talks about career in robotics and automation

Mr Krishnagopal V, a Vidya alumnus of the B Tech (ECE) 2015-19 batch, interacted with the students of the ECE Dept on the topic "How to Choose a Career in Robotics and Automation after B.Tech ECE". He is currently doing his Master's Degree in Robotics and Automation at Amrita Vishwa Vidhyapeetham, Kollam Campus. During the session he shared his views about the major concepts/foundation courses in the B Tech curriculum which would help a graduate to enter the field of robotics and automation. He also talked about a few examples of CAD tools used and about some of his works. He stressed the importance of Projects in the curriculum and what were the points that should be emphasized while executing a project. On concluding the session, he guaranteed his support for students who are interested in doing projects in the field of Robotics and Automation and video based projects.



#### Vyvidh 2022

Department of Electronics and Communication in association with Vyvidh 2022 were able to conduct a magnificent and rich Technical Festival on April 29<sup>th</sup> and 30<sup>th</sup>, to uphold the pride and status of the department and Vidya Academy of Science and Technology. It was a privilege on behalf of the department to be able to conduct 'the tuners expo HAULINTORQUE and 'KERALA'S LARGEST ROBOTIC HACKATHON - LIGA ROBOTRIX '22', and make a mark for the everlasting commitment of the department on encouraging further research and enthusiasm in the field of Robotics and Automobiles. The Department was able to make a statement that Vidya Academy of Science and Technology has become the pioneer of Robotic Hackathons in the state of Kerala as well as materialize a Technical Festival responsible to 'encourage the participation' of High School and Polytechnic students.

#### Alumni Talk "Beyond B.Tech"

ECE Dept organized an Alumni Talk 'Beyond B.Tech' for final year students on 28/05/2022. The programme was conducted in Goole Meet platform. The resource Person was Ms Anjana P Muraleedharan, (ECE Dept Alumni), Staff Application Engineer, Infineon Technologies. She made a talk on different career opportunities after completing B.Tech. She also emphasized the importance of doing M.Tech. in Electronics Core areas like VLSI, Embedded Systems etc. She convinced the students about various job openings related to each area. Students were very much enthusiastic as they asked about doing various other courses in job oriented areas. It was really fruitful to the final years as they were in their last semester.



#### Farewell - "MA'A SALAAMA"

On 3rd June 2022, the third year ECE students conducted "MA'A SALAAMA", a farewell programme for the final year students of the Dept. The began at 12:30pm. Sooraj of S6 ECE B was the host of the day. Dr S Swapna Kumar(Prof and Head, ECE Dept) and tutors of the final year batches both B. Tech and M. Tech shared their thoughts and happy moments with their dear students. The outgoing students also shared their memories of the days they spent in the Dept. There were cultural events and games to entertain the outgoing students.

#### **Excellent Placements in M.Tech Embedded Systems**

The 2020-22 M.Tech Embedded Systems Batch has brought an excellent placement record to our department. Almost 72% of the students got placed. Most of the placements are in the core field.

- Anagha Prabhakaran TCS, Avin System
- Anagha Rajeev Infosys
- Devikrishna K UST Global
- Loniya Jainney Infosys
- Krishnapriya Infosys, Avin System
- Fasla K A Anora Lab, Infosys
- Ganesh TM Anora Lab
- Prajith NP-Data Patterns
- Pooja Sidharthan L&T
- Sreelakshmi K S Anora Lab

## Faculty Participations

- Dr. Jeeva K A (Assoc Prof), Mr Rakesh V S (AP) and Ms Honey Mol P K (AP) participated and successfully completed a five-day online FDP on "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE) during 2<sup>nd</sup> 6<sup>th</sup> August 2021.
- Four faculty members, namely Mrs. Divya Unni, Mr. Rakesh V S, Mrs. Honeymol, Mrs. Sarika K T participated and successfully completed the KTU sponsored five-day online FDP on "AI and Data Sciences: A pedagogical Approach" organized by St. Joseph's College of Engg. and Technology, Palai, Kerala during 9<sup>th</sup> 13<sup>th</sup> August 2021.
- Mrs Viji Vinodan, Trade Instructor, successfully completed an online course in Digital Content Writing from Henry Harvin Education, a globally recognised institute in corporate training. This certification makes her eligible to establish herself as a professional digital content writer.
- Dr. Jeeva K A (Asso Prof) attended a three-day FDP on "Applications of Mathematics in Engineering Field" organized by Dr D Y Patil Institute of Engineering, Pune during 20<sup>th</sup> 22<sup>nd</sup> October 2021. Dr Sudha Balagopalan, Dean-Academics, was one of the resource persons for the FDP.
- A research paper titled "A novel predictive model for capturing threats for facilitating effective social distancing in COVID-19" and authored jointly by Dr Salma Firdose (Department of Computer Science, Christ Academy Institute of Advanced Studies Christ Nagar, Bengaluru, India), Dr S Swapna Kumar (Department of Electronics and Communication Engineering, Vidya Academy of Science and Technology, Kerala, India) and Dr Ravinda Gayan Narendra Meegama (Department of Computer Science, Faculty of Applied Sciences, University of Sri Jayewardenepura, Nugegoda, Sri Lanka) has been published in the International Journal of Electrical and Computer Engineering, Vol 12, No 1: February 2022, pp. 596–604.
- Dr Swapna Kumar S (Prof and Head) attended an online FDP on "Cybersecurity: Enterprise-level Architecture" organized by TCS and held on 15<sup>th</sup> November 2021.
- Three faculty members of the ECE Dept Mrs Divya Unni, Mrs. Vandana M and Mrs. Ashitha P R participated in a KTU sponsored 5-day online FDP on "Recent Trends in Bio-nanoelectronics" organized by LBS Institute of Technology for Women, Trivandrum, Kerala during 21<sup>st</sup> 25<sup>th</sup> March 2022.
- Dr S Swapna Kumar (Prof and Head) attended a six-day National Online Faculty Development Program on Outcome Based Education, organized by the Internal Quality Assurance Cell of St. Joseph's Degree & PG College (Autonomous), Hyderabad in association with IPRS solutions limited during 25<sup>th</sup> 30<sup>th</sup> April 2022.
- Dr S Swapna Kumar (Prof and Head) successfully completed with "Elite" grade a four-week long NPTEL online certification course (Jan-Apr 2022) titled "Introduction to Industry 4.0 and Industrial Internet of Things" offered by IIT Kharagpur.
- The faculty members Dr. Jeeva K A, Mr. Santumon S D, Mrs. Fetsy K Francis, Mrs. Sarika K T, Mrs. Honey Mol P K, Mrs. Aswathy Menon, Mrs. Niveditha P S, Mrs. Hima Anna Thomas have participated in the TEQIP-II sponsored 5 days Online Faculty Development Programme on 'Recent Trends in Signal and Image Processing' organized by the Department of Electronics and Communication Engineering, Government Engineering College Palakkad, Sreekrishnapuram during May 16<sup>th</sup> 20<sup>th</sup>, 2022.

### Our Ambassadors...



Roja Antony Hexaware Technologies



Praveena Francis Libin Joychan Sutherland, Infosys



TCS



Veny A TCS



Sagar M S Quest Global



Janet Joe UST



Poornam Infovision Ouest Global



Sreelakshmi Ajayan Harinarayanan N N



Navva Joshy Quest Global, Capgemini



Neema Varghese Infosys



Salma P S **Quest Global** 



Sreelakshmi K P **Scholasys** 



K Aswathy Chandran Lekshmi T V **OBurst**, Tech Mahindra, Federal Bank, Wipro, Sutherland



TCS, Marlabs



Gayathri K G TCS



Bhagyalakshmi M R Quest Global



Aniana U Sutherland



Anjali S Kumar Quest Global, Birla Soft, Sutherland,

Infosys, Soti



**Anakha Vinod** O Burst. Sutherland



Anagha K S TCS, WIPRO



Aiswarya K B TCS, Infosys



Adithya AR

TCS



**B** Poornima TCS



Aswin P.R Sutherland



Archana M **TCS** 



Abhirami K J UST, Sutherland



Megha Joshy TCS



Devika K H QuEST Global, Sutherland



Janisha P **UST** 



Anuja Chandran Digital core technology



Ardra T K



Anagha Prabhakaran TCS, Infosys TCS, Avin System



Anagha Rajeev Infosys



Devikrishna K UST Global Anora Lab, Infosys



Fasla K A



Ganesh T M Anora Lab



Infosys, Avin System Infosys





Loniya Jainney Pooja Sidharthan L&T



Praiith N P **Data Patterns** 



Sreelakshmi K S Anora Lab

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