



Vol. 5

ECE News & Events

November 2018



From Principal's Desk . . .

A knowledge explosion in the field of Engineering and technology is the channel for the progress of the department thereby the nation.

I am very pleased to congratulate the department of Electronics and Communication Engineering being instrumental in releasing their fifth series of “EnCircle” newsletter for the academic year 2017-18. Such newsletter is the essence of the department, that inculcates their development and progress to bind the people together.

Department of ECE has always shown a dynamic culture to go beyond the portals of the classroom, by involving themselves in a multiple professional activities. They maintain in a unique way for their growth and institutions as a whole. I hope this newsletter brings out the qualities of people who were involved.

I wish the Head of the Department, all the staff and students of the department for having taken the best initiatives in bringing out this newsletter.

Dr. Saji C B
Principal- VAST



From HoD's Desk . . .

“Department of ECE welcomes Dr. Saji C. B. for holding the ‘Principal’ position of the institution”

“Success and failures are stepping stones in the field of education, where knowledge stands as prime, to overcome hurdles”. It gives an immense pleasure, that department of ECE is releasing “EnCircle” - volume 5, newsletter series for the academic year 2017-18. I congratulate the entire ECE team for their solidarity in bringing it out successfully.

The newsletter series is the blueprint showcase activities of the department exposing the diverse contributions, merits, achievements made by the staffs and students in a documented way. This would definitely create an impact to the readers, by providing clear visibility of the department. Moreover, such culture of releasing newsletter will definitely influence sustainable dynamism of department excellence.

On behalf of department I expressed my gratitude to the principal and management for their constant source of support towards departmental growth.

Dr. S. Swapna Kumar
Head of ECE

Biggest Achievement of ECE

* Vidya students selected as Incubatee of NSRCEL@IIMB



The five-member B.Tech (ECE) student team from Vidya (Aishwarya Pradeep, Aiswarya Rajeev, Anjali P., Akash Sathian P. and Aftab Ashraf A. V.) mentored by Mr. Ramesh C.R. and Mr. Rakesh V. S., Assistant Professors, ECE Dept, has been selected as Incubatee at NSRCEL@IIM Bangalore. The announcement was made during the grand finale held at IIM Bangalore on 10 August 2018 of the India Innovation Challenge Design Contest (IICDC), launched by Texas Instruments India in association with the Department of Science and Technology.

The team also received special appreciations from Dr. S. D. Shibulal (Co-Founder and Ex-CEO, Infosys). The team applied conceptual implementation of Non-Invasive Hb Tester (B-Hue) and obtained 4 provisional Patents. The low cost device is designed for first time in India has received lot of inquiry. It also conducted Hb count determination camps at remote areas including the 101 villages selected under Amrita Serve Scheme (an initiative of Amrita School of Engineering, Coimbatore).

DEPARTMENT ACTIVITIES

* 3-Day FDP on Advanced Topics in Signal & Image Processing

ECE Dept. jointly with ISTE, IE (I) and IETE, organized a three days Faculty Development Programme on Advanced Topics in Signal & Image Processing during 29.11.17 to 01.12.17. Dr. R. Gopika kumari (Professor, CUSAT) inaugurated the Programme. This was followed by lecture on Digital

Image Processing, Sparsity in Signal Processing, Speech & Audio Signal Processing, Pattern Recognition, Wavelet Theory and Advanced Features & Tool Boxes of MatLab. The resource persons were Dr. R. Gopikakumari, Dr. Sudhish N George (Asst. Prof., NIT Calicut), Dr. Govind D (Asst. Prof., School of Engineering, Amrita, Coimbatore), Mr. Hari C V (Asst. Prof., Rajagiri School of Engg), Dr. Vinu Thomas (Prof. & Head of ECE Dept., Model Engg. College) and Mr. Pramod Kumar Naik (CoreEL Technologies, Bangalore).



* 3-day workshop on Audio and Video Processing



A three-day Workshop on Audio and Video Processing was organized by ECE Department during 16th to 18th July 2018 aimed at providing an insight into the area of speech processing. The program was based on syllabus for the course offered in the Seventh Semester of B Tech (ECE) curriculum of APJAKTU. All the sessions of the workshop were handled by Dr. D. Govind of Amrita School of Engineering, Coimbatore).

* LED Light Repair Technician Course under PMKVY



The “LED Light Repair Technician Course”, a Skill Certification Programme for 2017-18 periods was organized by the ECE Dept., as part of the Pradhan Mantri Kaushal Vikas Yojana (PMKVY). It was inaugurated on 03.03.2018 by Dr. Sudha Balagopalan, former Principal.

✱ **Two-day workshop on Embedded Programming using Arduino UNO**



Two day workshop on “Embedded Programming Using Arduino UNO” was conducted on 8th & 9th December 2017. The students participants were from various Polytechnic colleges around Thrissur, as well as students of Govt Polytechnic colleges from Meenagadi and Mepadi across Kerala

✱ **Expert talks about “Piezoelectric Materials and its Applications”**

A technical talk on “Piezoelectric Materials and Its Applications” by Dr. V. Kumar (Scientist, CMET) was organized on 31.01.2018. Dr. Kumar talked about the research opportunities available in the field of piezoelectric materials.



✱ **On-Job-Training for students of Sarvodayam VHSE, Mundathicode**

An On-Job-Training (OJT) for the students of Sarvodayam VHSE, Mundathicode, conducted during 27th November 2017 to 5th December 2017. The training was provided for the students in three areas (Graphics & Autocad, Networking and Web development) as per the request of the School.

✱ **IETE-ISF organized week long Skill Development Programme for ECE students**



The college unit of IETE-ISF organized a one week long Skill Development Programme for the students of ECE Dept. during 19th to 25th July 2018 with the support of IETE Kochi centre. The programme was aimed at enhancing the skills of the B Tech students of the department.

✱ **ECE Dept. gets financial assistance from KSCSTE for two-day national conference**

The proposal for organizing a conference titled “National Conference on Advanced Innovations in VLSI, Embedded Systems, Signal Processing & Communication (AIVESC-2018)”, submitted by Dr. S.Swapna Kumar (HoD, ECE) has been granted financial assistance of Rs. 30,000 from KSCSTE under the scheme for promoting S&T Seminar/Symposia/Workshop.



✱ **ECE Dept organizes 2-day National Conference (AIVESC '18)**

A two-day National Conference on Advanced Innovations in VLSI, Embedded Systems, Signal Processing and Communication (AIVESC'18) was organized on 9th and 10th March 2018. The conference was sponsored by KSCSTE and PTA (VAST), and was organized jointly with IETE.

✱ **MoU for academic alliance between
KELTRON and VAST signed**

An MoU between the College and Kerala Electro-Ceramics Ltd (KELTRON) for ECE dept. was signed on 30.10.2017. Mr. Padmanabhan (Manager), Mr. Poly M V (Senior Engineer) and Ms. Binda M B (Senior Engineer), from Keltron Knowledge Service Group, participated in the MoU signing ceremony. Executive Director Er. G. Mohanachandran released the newsletter of the ECE Dept. (Encircle – Volume 4) by handing over the first copy to Er. K. Balan.



✱ **Technical talk at IES Engineering College**

Mr. Ramesh C R, Asst. Professor, ECE Dept., served as the resource person for “Seminar on Sensors” at IES College of Engineering on 06.11.2017.

✱ **ECE faculty members serve as resource persons
at St. Joseph College of Engineering, Palai**

Mr. Ramesh C. R. and Mr. Rakesh V.S. (Asst.Prof., ECE Dept.) served as resource persons for a hands-on training on “IoT Applications Using WeMos Wi-Fi Board” organized as part of Asthra, the inter-collegiate technical festival of St. Joseph College of Engineering, Palai, on 17.02.2018.



✱ **ECE alumnus talks about B.Tech life
and industry experiences**

Mr. Sandeep N. L., an alumnus of the B. Tech. (ECE) 2005 – '09 batch, gave a talk to student of the college on his experiences as a B. Tech. and later experiences in industry. Mr. Sandeep is now Managing Director, Vidyuth Energy Solutions, Thrissur on 22.09.2017.

✱ **3-day internship program in Machine
Learning**



ECE organized a three-day internship program in Machine Learning during 5th to 7th January 2018 for the S7 B.Tech (ECE) students. Er. Poly M.V., (Senior Engineer, KELTRON Knowledge Services Group), gave a motivational talk and officially inaugurated the programme.

✱ **Internship programme in embedded systems
and IoT**



A three-day internship program in embedded systems and Internet of Things (IoT) was organized from 3rd to 5th January 2018 for the S7 B.Tech (ECE) students. The programme began with talk on introduction to the various activities of KELTRON by Mr.Giri,(Engineer, KELTRON Knowledge Services Group (KSG)), Trivandrum. The various theoretical and

practical sessions in the programme were handled by a team from KELTRON consisting of Mr. Sudheesh V. S., Mr. Jaison Joseph, Ms. Ann Mary and Ms. Anupa Ann Joseph (Academic Executives in KELTRON KSG).

✱ ECE Dept honours its great achievers

The association of ECE and the association of Vidya Alumni (AVA) jointly organized a ceremony to honour the historic achievers the ECE Dept of the College. The five-member B Tech (ECE) student team from Vidya comprising of Aishwarya Pradeep, Aiswarya Rajeev, Anjali P, Akash Sathian P and Aftab Ashraf A V, mentored by Mr Ramesh C R and Mr Rakesh V S, Assitant Professors, ECE Department, had been selected as Incubatee at NSRCEL@IIM Bangalore.



✱ Resource person for add-on course @ Sahrdaya

Mr.Ramesh C.R. (AP,ECE) served as resource person for Add-On course on PIC microcontrollers & Peripheral programming at Sahrdaya College of Engineering & Technology, Kodakara for S5 students of Biomedical Engineering Stream.

GRADUATION CEREMONY 2018



Vidya Academy of Science and Technology conducted "Graduation Ceremony 2018" of 2014-18 B.Tech batch and 2016-2018 M.Tech batch on 27th September 2018 in the College Auditorium where department staff was involved. Sri.V. Muraleedharan, Member of Parliament (Rajya Sabha) was the guest of honour on the occasion. The ceremony commenced with a ritualistic academic procession. Dr. Saji C.B. (Principal) welcomed the participants. Mr. Sudhakaran Polasserry, presided over the function.

✱ GATE

Gate coaching classes are conducted for third and final year ECE students throughout the academic year.

✱ KTU ORIENTATION PROGRAMME

The All India Council for Technical Education (AICTE), the statutory body responsible for proper planning and coordinated development of the technical education and management education system in India, has mandated that all AICTE approved engineering colleges in India to conduct an induction programme for B. Tech students from 2018 as a part of their undergraduate programme. The AICTE-mandated induction programme in Vidya was organised by Sameeksha, the Trainers' Club of Vidya, during 23rd to 28th July 2018 where department staff was involved.

STAFF PARTICIPATION

1. Mr Santumon S. D. (Asst.Professor, ECE) attended a five-day AICTE sponsored QIP Short Term Course on "Applied Mathematics for Engineering Research" organised by the Centre for Interdisciplinary Research, College of Engineering, Thiruvananthapuram, during 11th to 15th December 2017.
2. Mr. Rakesh V. S., Ms Honeymol P.K., Ms Jemy Jose Kakkassery, Ms Sruthi M. and Ms Vandana M. (AP, ECE Dept.) attended an APJAKTU sponsored three-day Faculty Development Programme on "Signal Processing & Embedded System Design Using EDA Tools" at Jyothi Engineering College, Cheruthuruthy, during 19th to 21st December 2017.
3. Mr.Sojan Francis and Mr. Ramesh C.R. (AP, ECE Dept.) participated in a three-day Faculty Development Programme on "Emerging Trends in Embedded Systems" conducted at ToCH Institute of Science

- & Technology, Arakkunnam, Ernakulam, during 18th to 20th April 2018.
4. Dr. S. Swapna Kumar (Prof and Head, ECE Dept) Jemy Jose Kakkassery, Sruthi M., Aswathy Surendran P., Vandana M. and Suraj Rajappan, (AP, ECE Dept.) attended a Faculty Development Programme on Machine Learning and Deep Learning, at TCS Centre Auditorium, Kochi, on 26th April 2018.
 5. Mr. Ramesh C.R., Ms. Divya Unni & Ms. Ashitha P.R., (AP, ECE Dept.) participated in a one-week MHRD TEQIP-II Faculty Development Programme on “Analog & Mixed Signal Circuits for CMOS Intelligent Sensors” organized by NIT Calicut under the twinning programme with GEC, Bharatpur, Rajasthan, during 9th to 14th July 2018.
 6. Ms. Jeeva K.A. (Assoc. Prof., ECE Dept.) presented a paper in the International conference 'SAPIENCE 18' organised by Sree Narayana Gurukulam College of Engineering, Kadayirippu, Kerala, on 27th September 2018.
 7. Dr. S. Swapna Kumar (Prof and Head, ECE Dept) has attended a one day faculty development program on “Artificial Intelligence & Machine Learning” at TCS Kochi, on 26th October 2018.
 8. Ms Ashitha P. R. (AP, ECE Dept.) successfully completed the online course “Introduction to Electronics” created by Georgia Institute of Technology and offered through Coursera.
 9. Mr. Ramesh C.R., Ms. Jemy Jose Kakkassery, Ms. Aswathy Surendran P. and Ms. Sruthi M. (AP, ECE Dept.) completed online course on “Principles of Project Management” offered by Polytechnic of Western Australia.
 10. Mr. Ramesh C.R., Ms. Fetsy K. Francis, Ms. Jemy Jose Kakkassery, Ms. Aswathy Surendran P., Ms. Sruthi M. (AP, ECE Dept.) and Ms. Viji Vinodan (Trade Instructor, ECE) completed an online course on Mobile Robotics offered by Swinburne University of Technology, Australia.
 11. Dr. S. Swapna Kumar (Prof and Head, ECE Dept) completed online NPTEL Online Certification, SWAYAM, 12 weeks course from IIT-Kharagpur on “Cryptography and Network Security” on 25th May 2018.
 12. Dr. S. Swapna Kumar (Prof and Head, ECE Dept) completed online NPTEL Online Certification, SWAYAM, 12 weeks course from IIT-Kharagpur on “Digital Image Processing” on 25th Nov 2018.
 13. Dr. S. Swapna Kumar (Prof and Head, ECE Dept) presented a paper titled “The Technology Movement keralarescue.in (Artificial Intelligence for Flood Management)” in the International Conference on Skills, Engineering and Technology (ICSET 2018) on the theme “Rebuilding the new Kerala” organised by the ICT Academy of Kerala during 2nd & 3rd November 2018 at Travancore International Convention Centre, The Sports Hub, Greenfield International Stadium, Thiruvananthapuram.
- ACHIEVEMENTS OF STAFF**
1. Mr. Anil M. (Assistant Professor of ECE) is selected as the “Best Programme Officer Award” for the year 2017-2018 of the State Government National Service Scheme (NSS).
 2. Mr. Ramesh C. R. (AP, ECE Dept) has been appreciated for his help in organizing the International Conference on Applied Science, Engineering & Technology (ICASET'18) organized by Sri Sairam College of Engineering & Technology, Anekal, Bengaluru, on 17th to 18th May 2018 in association with IFERP. Mr. Ramesh has served as the National Technical Advisor Board Member for the Conference.
 3. Mr. Ramesh C.R. (AP, ECE) has been selected as a member in Technical Organizing Committee of the 6th International Conference on Chip, Circuitry, Current, Coding, and Combustion & Composites at Sri Sairam college of Engineering, Anekal at Bengaluru from 28th to 29th November, 2018 and as an organizing committee member of 15th World Conference On Applied Science, Engineering And Technology (WCASET) at Kyriad Hotel, Goa hosted by IFERP on 30th to 31st December, 2018.
- * PAPERS PRESENTED**
1. Dr. S Swapna Kumar (HoD, ECE) presented two research papers in National Conferences. (1) A paper entitled “Melanoma Detection Using Deep

Learning and ABCD Rule” in the National Conference on Advanced Innovations in VLSI, Embedded Systems, Signal Processing & Communications '18 jointly organized in the College by ECE Dept of the College, KSCSTE and IETE (Kochi Centre) on 09.03.2018.

2. A research paper titled “Automatic Monitoring and Control of Shrimp Aquaculture and Paddy Field Based on Embedded System & IoT” authored by Mrs. Sneha P S, M Tech (Embedded Systems) 2017 passed-out batch, and Mr. Rakesh V S (Assistant Professor, ECE) has been presented at International Conference on Inventive Computing & Informatics (ICICI 2017) held on 23.11.2017 at Hotel Arcadia, Coimbatore.
3. Febin Bos P, Ms. Sruthi M. (AP,ECE) published a paper titled "Autonomous low power IoT based solar panel cleaning system", IJESRT, March 2018.
4. Robith Raphael, Mr. Suraj Rajappan. (AP,ECE) published a paper titled "Real Time Analysis For Wear and Tear of Cutting Blades", GJESR, March 2018.
5. Aathira N. A., Ms. Ashitha P. R. (AP,ECE) published a paper titled "A Novel Wireless Smart Shoe System for Gait Analysis in Older Adults", IJESRT, March 2018.
6. Saina Sunny, Dr. S. Swapna Kumar (HOD,ECE) published a paper titled "IoT Based Non Invasive Glucometer Using Optical Method", International Journals of Advanced Research in Computer Science and Software Engineering, March 2018.
7. Sangeetha P (AP,CSE), Dr. S. Swapna Kumar (HOD,ECE) presented a paper on. “Detection of a Malicious node in MANET”, IEEE 4th International Conference on Power Signals Control and Computation [EPSCICON-2018], Kerala, January 2018.
8. Vaneeta M (AP,CSE), and Dr. S. Swapna Kumar (HoD,ECE) presented a paper entitled “Novel Key Distribution and Secure Communication in Wireless Sensor Networking” in the Kerala Technological Congress 2018 (KETCON 2018) hosted by Sahridaya College of Engineering & Technology, Kodakara, 23 February 2018.

ACHIEVEMENTS OF ECE STUDENTS



1. The IETE Students' Forum (ISF) in Vidya has been bestowed the Best ISF Award for the year 2017–18 by the IETE Kochi Centre. The award was distributed on the occasion of the Annual General Body Meeting of IETE Kochi Centre held on 24 June 2018 at Hotel Woods Manor, Kochi. Mr. Ramesh C. R (AP,ECE Dept), Staff Advisor ISF - Vidya, Mr. Vijayakrishnan I, Mr. Hrishikesh P. V., and Mr. Aftab Ashraf (Student Representatives, ISF-Vidya) represented ISF- Vidya to receive the awards.
2. The product development team of the ECE Dept successfully demonstrated before the officials of the Commercial Division Office, Indian Railways, Trivandrum Division, on 21.04.2018, a product developed by the team for the Puthukad Railway Station.



3. Two project proposals of faculty of ECE department have been selected for funding under the Research Seed Money Project scheme of the Centre for Engineering Research and Development (CERD) in association with APJAKTU. The details are
 - I. Project titled “Real time monitoring of wear and tear of metal cutting blades” by Robith Raphael guided by Dr. S. Swapna Kumar & Suraj Rajappan.
 - II. Project titled Design and Validation of Low Cost Non-Invasive Hemoglobin Tester by Aftab Ashraf A V, Aishwarya Pradip, Aiswarya Rajeev, Akash Sathian P S, Anjali P. guided by Mr. Ramesh C.R. & Mr. Rakesh V.S.

- Ms. Sneha Mohan M, a B Tech (ECE) student of the 2015 pass-out batch, has got admission at Colorado State University, USA, for a MS programme in Computer Information Systems and is currently pursuing the same.
- A team of S8 B Tech (ECE) students Yadhu krishnan, Nigin G Kariatt, Seethal, Limiya Kurian and Keerthy Manoharan presented a poster entitled "Automotive Tracking Radar using Software defined Radio" in the International Conference on Science & Technology organized by CUSAT during 23-25 April 2018.
- Aishwarya Pradeep (S8 B Tech (ECE)) secured the First Prize in the Semi-Classical Music (Hindu stani) competitions in the D Zone arts festival 2018 of Calicut University held on 23.01.2018 at Panambilly Memorial Govt. College, Chalakudy.

ACHIEVEMENTS IN EXTRACURRICULAR ACTIVITIES

- Ann Babu Treeza (2014 Admission) participated in National Level Chess Championship held at Saveetha University, Chennai from 1st to 5th November 2017.
- Gokul Krishna (2015 Admn.) of Electronics and Communication engineering department represented Kerala State Kho Kho Championship in the South Zone senior National Championship and secured Third.
- Sreyas Namboodiri of S5 ECE B Batch (2016 Admn.) became certified ethical hacker with a score of 110 out of 125 in the exam conducted on 1st November 2018 at VAST.

CAMPUS PLACEMENT

The ECE dept. students were got of offers and placement in the following companies.

Amazon

TCS Ltd.

Tessolve Ltd.

CMS-IT

KPIT Technologies

GICE Pvt. Ltd

Robert Bosch

Byju's

Anoralabs Ltd.

Poornam Infovision

Accelaron Labs Bangalore

Infosys Ltd

Speridian Technologies-Trivandrum

TEXAR SYSTEMS Pvt Ltd

M G M College of Engineering

Audrey Technologies

Holoteq, Qatar

Sutherland Global Services

Symptots, Cyberpark

ARTS FEST-ADVIKA 2018



ADVIKA 2018, the annual Arts Fest of the College, was organized during 16 to 19.02.2018. The off-stage events were held on 16.02.2018 and 18.02.2018 and the on-stage events on 17.02.2018 and 19.02.2018.

VYVIDH 2K18

Vyvidh-2K18 a two-day technological extravaganza organized by the students of the college on 16th and 17th March 2018. Each academic dept of the college had a separate set of events with a unique name all together created a Tech Fest in the College. The most attracted event by ECE was ROBOWAR. Circuit Debugging, Anuyayin, Soldering Competition, VR Cader, Oxelorate were the other events by Dept.Of ECE.

* Annual Athletic Meet 2018-19

The Annual Athletic Meet of the College was held on 25th and 26th October 2018 with the aim of nurturing sporting talents and to inculcate the spirit of healthy competition among the students.