

# Encircle

VOL 6

November 2018



## News and Events

DEPARTMENT OF ELECTRONICS AND COMMUNICATION





## **Department of Electronics and Communication Engineering**

### **Vision:**

“To be a centre of excellence in electronics and communication engineering through value-based 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.



Vol 6

ECE News & Events

October 2019



### From Principal's Desk . . .

*Progress through education is a fundamental explosion of knowledge in our midst, especially in Engineering and technology. The department of Electronics and Communication Engineering always make a promising contribution through the glorious stride. The dynamic contributions exhibited by both staff and students for the comprehensive growth of the department and the institutions is commendable.*

*I am delighted to see that the department is releasing sixth series of "EnCircle" - volume VI, newsletter that is having rich contents. This newsletter inculcates the achievements, contributions and developments in true spirit from the department.*

*I express my hearty congratulations to HoD, staff members and students for their productive efforts. Further, I wish the department to scale new heights in the days to come, upholding the message "Our Vidya Our Pride".*

Best Wishes

**Dr. Saji C B**  
Principal- VAST



### From Head's Desk . . .

*All humans have inherent potential and the ability to explore their potentials in different forms. This is even possible by proper nurture of their skill or with necessary support. The department of Electronics and Communication Engineering has always been instigating skills to develop the integral strength of resources.*

*It gives me an immense pleasure on the release of our sixth series of "EnCircle" - volume VI, newsletter for the year 2018-2019. The newsletter is the showcase of activities that is contributed by ECE staff and students. It is our endeavor to put forward the best practices and activities of the department that is listed in this newsletter.*

*I applaud all members of ECE department for their contribution as well as coordination for this newsletter. I am sure; there will be lots more in the near future. Further, on behalf of the department I expressed my gratitude to the principal and management for their constant source of support for enrichment.*

**Dr. S. Swapna Kumar**  
Head- ECE

**Vidya's "b-Hue Alumni" scale greater heights**

The Kerala Start-up Mission (KSUM) has sanctioned an amount of Rs. 2.5 lakhs as "Productization grant" to a team of Vidya's alumni Aftab Ashraf A.V., Aishwarya Pradip, Aiswarya Rajeev, Akash Sathian P.S. and Anjali P. (B Tech ECE 2018 pass-out batch). The team has founded a start-up company Tallshortree Pvt. Ltd. which was incubated at IIM Bangalore. The start-up is focused on developing a non-invasive hemoglobin tester "b-Hue". The ECE Dept. of the College should be proud of the fact that it was the mentoring and continued support extended by Mr. Rakesh V. S. and Mr. Ramesh C. R. (Assistant Professors, ECE Dept.) that helped these alumni to reach the positions now they hold.



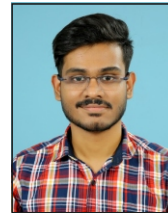
**Four Vidya students do one-month internship at Bennett University**

Leadingindia.ai is a nationwide initiative by the Royal Academy of Engineering, UK under Newton Bhabha Fund on "AI and Deep Learning Skilling and Research". University College (London), Brunel University (London) and Bennett University (India) are collaborators of the project. NVIDIA and AWS Educate, Videoken and Edvantics are industry partners. The initiative got further boost when AICTE saw great merit in the initiative and has recommended all of its approved institutions to associate with the project.

Four students from Vidya received an opportunity to take part in a one month long Summer Internship under Leadingindia.ai at Bennett University, Greater Noida, UP.

Among them three students Rahul Vincent, Sreehari G. varma and Sreyas Namboodiri were from the ECE Dept. and one student Adharsh S. from CSE Dept.

Each of the groups were given a live world wide competitions project on various themes. Team of Sreyas Namboodiri won the First Prize and their paper was recognised for its novelty with plagiarism under 1%. The university have agreed to publish their paper in an international journal. Team of Rahul Vincent won an Appreciation Award for one of the best projects.



**ECE Dept organizes add-on course in Machine Learning**

The ECE Dept. of the College organized an add-on course in Machine Learning for fourth semester B.Tech (ECE) and M Tech (ES) students during 22<sup>nd</sup> to 26<sup>th</sup> July 2019. The expertise for the course was provided by Pantech Solutions, Kochi. The course was designed to give the students an introduction to all the basic ideas of Python programming and machine learning. The course is expected to be helpful for students for doing their curriculum projects. Mr Bharath, ML Engineer, Pantech Solution, Kochi, served as the resource persons for the course.



**Vidya students interact with industry leaders**



A group of students associated with the IEDC of the College got a rare opportunity to interact with industry leaders and experts from various domains. The occasion was the “Students Top 10” programme organized by the ICT Academy Kerala on 28 March 2019. The “Top 10 Meet” began with a question-answer session on artificial intelligence.

**ECE Dept organizes invited talk on SONAR**

ECE department organized a technical talk on “Sound Navigation and Ranging (SONAR)” on 14<sup>th</sup> February 2019. Dr. T. Ratnamani, (Scientist Grade-G, DRDO) delivered the presentation on SONAR for the S2 and S4 students of M.Tech (Embedded Systems).



**Trainers Training Programme on Robotics**

The Vidya Skill Centre organised a Trainer's Training Programme on Robotics in the College on 23<sup>th</sup> to 24<sup>th</sup> May 2019. Mr. Ramesh C. R. (AP, ECE Dept.) was the resource person for the programme. Faculties from various departments attended the workshop.



**ECE faculty serves as resource person at Ernad Knowledge City**

Mr. Ramesh C. R. (AP, ECE Dept) served as resource person for a two-day workshop on Embedded System Design using ARM Processors at Ernad Knowledge City (Technical Campus), Manjeri. The workshop was organized by the Association of Electronics & Communication Engineering of the College and around 60 students participated in the workshop. The two-day programme was a fully hands on session which started with basics of embedded system design followed by ARM LPC2148 architectural basics.



**Vidya organises workshop on Arduino programming at Gurukulam Public School, Venginissery**



A two-day workshop on Arduino Programming was held at Gurukulam Public School, Venginissery, Thrissur, during 20<sup>th</sup> to 21<sup>st</sup> December 2018 as part of the ATAL Mentoring by Mr. Ramesh C. R. (AP, ECE Dept.). The students implemented prototype projects starting from simple PIR sensor based home security system, noise level detection and warning system, automatic irrigation system for herbal gardens and gesture controlled hexpad robots. A team of students also studied dot-matrix display with Arduino UNO boards and finally designed and implemented a real time e-welcome board for their school.

**ECE Dept's ENERGIA 2K18 : Workshop for polytechnic college students**

Department of ECE organized a two-day hands-on workshop christened “ENERGIA 2K18” during 7<sup>th</sup> to 8<sup>th</sup> December 2018 targeted at the final year students of polytechnic colleges in Kerala. The fully hands on workshop was intended to give an introduction and awareness about Texas Instruments (TI) based hardware and software tools through training on 'Embedded Systems Design using MSP430G2 Launchpad'.



**Release of Encircle Vol.5**

The Volume 5 of “Encircle”, an annual newsletter being published by the ECE Dept., was also released during the inaugural function of ENERGIA 2018. Er. G. Mohanachandran (Executive Director, VICT) released the news letter by handing over a copy to Dr .Saji C. B., Principal.



**First PhD scholar of Dr.S. Swapna Kumar completes her viva**

Ms Sangeetha V., a PhD scholar of Visvesvaraya Technological University supervised by Dr. S. Swapna Kumar (Prof and Head, ECE Dept.) has completed her work and defended her thesis on 15 June 2019. Ms Sangeetha is the first PhD scholar of Dr.S. Swapna Kumar. She is also the first person to acquire a PhD degree under the guidance of a faculty member of Vidya.



**ECE HoD delivers invited lecture in International Conference**

Dr. S. Swapna Kumar (Prof. & Head, ECE Dept) has delivered an invited lecture in the International Conference on Super-capacitors, Energy Storage and Applications (ICESA-2019) held at the Centre for Material for Electronics Technology (C-MET), Govt. of India, Thrissur, Kerala during 8<sup>th</sup> to 10<sup>th</sup> March, 2019.

**ECE faculty member conducts skill development programs in various schools**



“Phoenix Training Team” is a team of ECE students created under the aegis of the IETE Institutional Students Forum functioning in the College. Mr. Ramesh C. R. (AP, ECE Dept.) along with members of the “Phoenix Training Team” conducted skill development programmes at several schools. During the programme, the school students were taught the methodology and technology of assembling LED electric bulbs, LED tubes and T-bulbs.

The programmes were conducted at the following schools: (1) Sree Ramakrishna Gurukula Vidyamandir Higher Secondary School, Puranattukara, Thrissur (2) Irimbhiliyam GHSS, Valanchery, Malappuram (3) Al Ameen High School, Kechery and (4) Elavally GHSS, Thrissur

**ECE Dept's special workshop for Nedupuzha Women's Polytechnic College students**



The ECE Dept. of the College organized a special three-day workshop for Nedupuzha Women's Polytechnic College students on “System DESIGN using ESP8266” during 30<sup>th</sup> November to 2<sup>nd</sup> December 2018 . Mr. Ramesh C. R. (AP, ECE Dept.) served as the resource person for the workshop.

**ECE Dept conducts hands on workshop in LaTeX**



The ECE Dept of Vidya organized a fully hands-on workshop in LaTeX for the first semester M. Tech (Embedded Systems) students on 31<sup>st</sup> August 2019. The resource person of the workshop was Dr. S. Swapna Kumar (Prof and Head, ECE Dept).

### **"Vidya's IEDC Nodal Officer attends Nodal Officers' meet at Calicut"**

Ms. Swapana E. V. M. (IEDC Nodal Officer of VAST and AP, ECE Dept.) attended a meeting of the IEDC Nodal Officers organised jointly by Kerala Startup Mission and ICT Academy of Kerala at UL CyberPark, Calicut, during 17<sup>th</sup> to 24<sup>th</sup> June 2019.

### **IEDC members attend IoT Application Development Workshop by ICT Academy**

The IEDC members of Vidya, along with students from other colleges, attended the IoT Application Development Workshop organized by ICT Academy of Kerala at Infopark, Kerala. It was a two-day workshop conducted during 28<sup>th</sup> to 29<sup>th</sup> March 2019. During the interactive sessions of the workshop, the participants learned about connecting IoT devices through cloud based services like Ubidots. They also learned about programming in Arduino IDE for NodeMCU.



### **GATE**

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

### **63 students of Vidya qualify for B Tech (Honours) Degree**

In the recently announced honours result, 63 students of Vidya admitted in the year 2015 and studied in various B.Tech programs, have been qualified in the Honours examinations and have become eligible to receive the B Tech (Honours) degree subject to the other conditions associated with the award of the B.Tech (Honours) degree. Among the 63 students, 33 students are in the CE stream, 13 in the CSE stream, 9 in the EEE stream and 8 in the ECE stream.



### **Results of engineering aptitude test: Vidya in the forefront in Thrissur District**

The results of the engineering aptitude test conducted by Kerala Public Service Commission and APJ Abdul Kalam Technological University (APJAKTU) to measure the engineering interests of students have been published. The test was attended by the 3rd and 4th year B.Tech students of APJAKTU. As many as 182 students of Vidya passed the test and this made Vidya the self-financing engineering college in Thrissur District having the highest number of students who had passed the test.

### **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. This is to conduct an induction programme for B. Tech students from 2018 as a part of their under-graduate programme. The AICTE-mandated induction programme in Vidya was organised by Sameeksha, the Trainers' Club of Vidya, during 22<sup>nd</sup> to 30<sup>th</sup> July 2019.

### **STAFF PARTICIPATION**

1. Dr. S. Swapna Kumar (Prof and Head, ECE Dept) attended a five-day workshop on "Deep Learning" (under Industry Institute Interaction Program) organized by Department of Electrical and Electronics Engineering, National Institute of Technology, Calicut, during 18<sup>th</sup> to 22<sup>nd</sup> December 2018.
2. Ms. Sarika K.T. (AP, ECE Dept) has completed an NPTEL online course on "Cryptography and Network Security" with a consolidated score of 65% conducted by IIT Kharagpur.
3. Resmi K. Rajan and Jemy Jose attended a two day hands on training programme on Robotics organized by skill centre, VAST on May 23<sup>rd</sup> to 24<sup>th</sup>.

4. Mr.Rakesh V.S. (AP, ECE Dept) completed an online course titled “ARM Cortex-M : Modular Embedded Systems Design” offered through udemy.
5. Ms. Resmi K. Rajan (AP, ECE Dept) completed with a score of 92% an online course titled “Operating Systems – Introduction to Memory Management” provided by alison.com and published by NPTEL.
6. Mr.Santumon S. D. (AP, ECE Dept) successfully completed the NPTEL online course on “Principles of Signal Estimation for MIMO/OFDM Wireless Communication” with a consolidated score of 70%.
7. Mr. Rakesh V. S. (AP, ECE Dept) and Mr Ramesh C R (AP, ECE Dept) attended a two-day workshop on “Deep Learning for Signal Processing” at Amrita Vishwa Vidyapeetham, Amritapuri Campus, during 4<sup>th</sup> to 5<sup>th</sup> January 2019 .The sessions were handled by resource persons from IIT, Mandi, India.
8. A book titled “LaTeX – A beginner guide to professional documentation” authored by Dr. S. Swapna Kumar (Head, ECE Dept) has been published by Laxmi Publications Pvt Ltd.The book was formally released in a brief ceremony held in the Main Seminar Hall on 5<sup>th</sup> January 2019.
9. Mr. Santumon S. D. , (AP ECE Dept.) attended a one-week course on “5G Wireless Technologies: Massive MIMO, mmWave, NOMA, Full Duplex, OFDM/FBMC, NB-IoT”, organized by IIT Kanpur in association with ECE Department Ramaiah Institute of Technology, Bengaluru, from July 8<sup>th</sup> to 14<sup>th</sup> 2019.
10. Ms. Aswathy Surendran P. completed online courses titled “ARM Cortex-M : Modular Embedded Systems Design” , “Introduction to Python programming” & “Python core and advanced” offered through udemy.
11. Ms. Sruthi M. completed online courses titled “ARM Cortex-M : Interfacing with keyboards & LCDs” & “Introduction to Python programming” offered through udemy.

### **ACHIEVEMENTS OF STAFF**

1. Mr. Anil M. (Assistant Professor of ECE) is selected as the “Best Programme Officer Award' for the year 2018-2019. The NSS Technical Cell of Vidya has bagged a total of four Directorate Level Awards for the activities in 2018 – 19.The NSS Units of Vidya have gathered awards several time in the past and getting awards for

NSS activities has become nearly routine. But it is the continued dedication, commitment and hard work of the NSS volunteers and the Programme Officers that has made this possible.

2. Mr. Ramesh C. R. (AP, ECE Dept.), who has been selected as an Exemplary Mentor of Change of Atal Innovation Mission (AIM) of NITI Ayog, Govt. of India, was awarded the Certificate of Excellence, in a function held at T-Hub (an initiative by Telengana State Government under the support of Govt. of India to incubate & flourish start-ups) at IIITH (International Institute of Information Technology, Hyderabad). The event at T-Hub was christened Mentor-India Round Table 2019 and it was organised as an appreciation meet to honor the Exemplary Mentors of Change. A selected group of 40 Mentors of Change, including those selected as the Exemplary Mentors of Change, from the various part of India attended the event.



3. The New Horizon College of Engineering, Bangalore, is an autonomous college affiliated to Visvesvaraya Technological University (VTU). In the syllabus of the course MEE 72 Control Engineering + Lab offered in the seventh semester of the BE programme in Mechanical Engineering of the College, the book titled “MATLAB: The easy Way of Learning” authored by Dr. S.Swapna Kumar (Prof and Head, ECE Dept), jointly with Prof. S.V. B. Lenina and published by Prentice Hall of India Pvt. Ltd, has been included as one of the reference books.
4. Mr. Aswin Vasanth K. (Trade Instructor, ECE Dept) has cleared the IELTS test with a band score of 8 in a nine band scale starting from score 1 He has also been assigned the CEFR (Common European Framework of Reference for Languages) level of C1, the highest level being C2.

**ACHIEVEMENTS OF ECE STUDENTS**

1. Mr.Sarath Sasikumar C., an alumnus of the B-Tech ECE 2019 pass-out batch, received the Best Innovator Award from the Honorable Union Minister of State for Rural Development Sadhvi Niranjana Jyothi, during the Rural Innovators Start Up Conclave RISC-2019 held at the National Institute of Rural Development and Panchayati Raj (NIRDPR), Hyderabad.



2. Sreyas Namboodiri and his team won the First Prize in the project competition during the Summer Internship under Leadingindia.ai at Bennett University, Greater Noida. His paper was recognised for its novelty with plagiarism under 1%. The university has agreed to publish their paper in an international journal.
3. Rahul Vincent and his team won an Appreciation Award for one of the best projects during the Summer Internship under Leadingindia.ai at Bennett University, Greater Noida.
4. Sooryadev K., Gopika Menon, and Akhil P. have secured Second Position in Line follower event, conducted as part of KTU Techfest 2019.
5. Ms. Sneha Mohan (B Tech (ECE) 2015 pass-out batch) has been awarded the degree of Master of Computer Information Systems from Colorado State University, USA, with an outstanding Cumulative Grade Point Average (CGPA) of 3.97 out of 4 and with the honour of the student securing the highest CGPA in her batch.

**PAPERS PRESENTED**

1. Ms. P. S. Anusree (M.Tech, Embedded Systems, 2016 Admission), and Dr. S. Swapna Kumar (Prof and Head, ECE Dept.) jointly presented a paper on “Study on Structural Vibration Monitoring Using WSN”, in the International Conference on Intelligent Data Communication Technologies and Internet of Things (ICICI) 2018 held at Hotel Arcadia, Coimbatore, on 7 August 2018. The proceedings have been published by Springer, Cham. First Online: 21 December 2018.

2. A paper titled “Zigbee Based Wireless Electronic Noticeboard” authored by Amrutha K R (S4 M Tech (ES)) and Ms Resmi K Rajan (AP, ECE Dept) has been published in International Journal of Current Engineering and Scientific Research, ISSN (Print): 2393-8374, (Online): 2394-0697, Volume-6, Issue-2, 2019.
3. Ms.Sarika K.T. (AP,ECE) Published a paper in International Conference on Perceptions in Biomedical Engineering and Affordable Healthcare Technologies, MEDCON 2019 organized by Department of Biomedical Engg and TECHOWN, Sahrdaya College of Engg and Technology with title " Highly Reliable Key Generation from Vein Pattern" on 14th May 2019.

**Record placements for the 2019 pass out batch**

The personnel in the Training & Placement Cell are very pleased this year and so are all in the Vidya family because of the record number of placement offers Vidya's students could gather this academic year. The ECE dept. students were got number of offers and placement in the following companies.

- Digital Core Technologies
- Wipro Semiconductors
- Tata Elxsi
- Infosys
- Tata Consultancy Services (TCS)
- US Technologies (UST-Global)
- IBS Software Services
- Robosoft Technologies
- Hexaware Technologies
- Experion Technologies
- Peridian Technologies
- Poornam Info Vision
- UL Technology Solutions
- Tagetik Software
- Supportsages Server Management
- Visionary RCM Infotech

**ACHIEVEMENTS IN EXTRACURRICULAR ACTIVITIES**

1. Sagar Saajan T. has participated in Dr. Pradeep Thevannoor Memorial Ever Rolling Trophy Volleyball Tournament held on 3rd to 10th April 2019
2. Varsh K. K. secured first prize in the University Inter Collegiate (E-Zone) Handball (Women) held at GEC TCR on 27-11-2018 for the year 2018-2019.

## **Vidya leaves Calicut University with a bang!** **35 of Vidya's students in B Tech rank list of 2018!!**



When University of Calicut published the rank list of 2018 pass out students of B Tech, Vidya came up with 35 ranks. There are 7 ranks in Civil Engineering, 5 in Computer Science & Engineering, 6 in Electronics and Communication Engineering, 7 in Electrical and Electronics Engineering, 9 in Mechanical Engineering and 1 in Production Engineering. Tinu Thomas from Electronics and Communication Engineering secured Seventh Rank.

### **Vidya's Graduation Ceremony 2019**

The Graduation Ceremony 2019 of Vidya was held in the College Auditorium on 24<sup>th</sup> August 2019 at 10.30 am. Dr Sivaji Chakraborti, Director, National Institute of Technology, Calicut was the chief guest for the function. Around 800 students of B Tech, M Tech and MCA programmes who have completed their courses this year along with their families participated in the Ceremony. The graduating students received their course completion certificates from the dignitaries during the ceremony.



### **Vidya bids farewell to outgoing students**

The pre-final year students of the various academic departments of the College in the afternoon of 15<sup>th</sup> May 2019 to say adieu to their seniors who were preparing to leave the institution after the conclusion of their studies in the College.



There were talks by faculty members, reminiscences by outgoing students and a host of cultural programmes. The outgoing students had come dressed in their best ever attires and most of them were seen trying to capture the last few moments of joy in the frames of their minds!



### **Vidya celebrates College Day**

The occasion was the College Day celebrations held in the Auditorium in the afternoon on 14 May 2019. The first half of the programme was very formal and the second half was filled with music, dance and merry making by students of the final semester B.Tech classes.



### **Vidya celebrates Onam with colours, music and dance**

Vidya's students along with faculty and staff celebrated Onam in the campus with much enthusiasm and merry making on 6<sup>th</sup> September 2019. Even though there were no College-wide official competitions, each of the academic Departments vied with all others to present the most innovative, most hilarious and most mesmerising events as part of the celebrations.





**VIDYA ACADEMY OF SCIENCE & TECHNOLOGY**



**VIDYA ACADEMY OF SCIENCE & TECHNOLOGY**



## **DEPARTMENT OF ELECTRONICS AND COMMUNICATION**

Thalakottukara P.O., Kecheri,  
Thrissur - 680501, Kerala, India

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