Encircle

VOL XI
OCTOBER 2024

NEWS & EVENTS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION

VIDYA ACADEMY OF SCIENCE AND TECHNOLOGY
THALAKKOTTUKARA, THRISSUR

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.

From Principal's Desk

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 ECE has made tremendous progress in all areas including academic, non-academic, skill development of staff and 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.

My special appreciation to HoD-ECE, the staff members, and the department's Students for their fruitful effort.

With Best Wishes!!

Dr. Sunitha C
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. Dept. is fortunate to have dedicated teachers, committed technical staff, and young budding students who yield the best outcomes. Moreover, the dept. improves 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 XI" newsletter. I appreciate the newsletter drafting team for their meticulous drafting. 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.

Regards,

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

Faculty Participations

- Ms. Remya K R, Ms. Ashitha P R, Ms. Divya Unni, Ms. Vandana M participated in online FDP on "Communication and Robotics system modeling with Matlab & Simulink" conducted by theDepartment of Electronics Engineering, Saintgits College of Engineering in association with MathWorks, The Robotic society student chapter, and Corel Technologies held from 19th to 21st October 2023.

- Ms. Remya K R, Ms. Ashitha P R, Ms. Divya Unni, Ms. Honey Mol P K participated in online FDP on "Recent trends in Biomedical application using AI" conducted by the Department of Biomedical Engineering, St. Peter's Institute of Higher Education and Research Engineering, Avadi, Chennai held from 29th January 2024 to 2nd February 2024.

- Ms. Remya K R participated in online FDP on Artificial Intelligence and Machine Learning in Signal Processing from 11th to 15th March 2024 organized by the Department of Electronics and Communication Engineering, SCMS School of Engineering and Technology, Karukutty.

- Resmi K.Rajan, Ms. Ashitha P R attended a 3 days Fdp on National education and policy-quality enhancement and reform in higher education institutions in alignment with Naac,held by EEE dept,VAST.

- Ms. Aswathy E R participated in two days special international research workshop on "Ethical Horizons in Research" organised by Research Foundation India & Council of Academic Research and Educational Organisation (RFI-Care) from 10-11 July 2024.

- All faculty members of the department participated in offline FDP on "Practical Aspects of Communication Engineering " conducted by the Department of Electronics Engineering in association with ISTE, IE, and IQAC held from 22nd to 24 th February 2024.

- Ms. Divya Unni participated in International virtual faculty development program on Innovative Computing Technologies for Health care systems organised by the Department of Computer Science and Engineering, St. Peter's Institute of Higher Education and Research Engineering, Chennai held from 19/02/24 to 23/02/24.

- Ms. Aswathy E R participated in 7 days online FDP on Essential Skills For Professional Development In Higher Education, Conducted By Star International Foundation For Research And Education-held from 1/7/2024 to 7/7/2024.

- Ms. Sagna L T, Ms. Remya K R, Ms. Aswathy E R participated in 5 day FDP on "achieving academic excellence: best parctices and innovative teaching" conducted by IQAC VAST in association with ISTE, IE(I) held from 22nd to 26th July 2024.

- Ms. Sagna L T participated in Online 5 day FDP on "Innovative teaching and learning pedagogy" conducted by Research Foudation of India from 9th to 13th January 2024.

- Dr S Swapna Kumar (Prof & HoD, ECE Dept) completed NPTEL 12-week online certification course (Jan-Apr 2024) on "Introduction to Internet of Things" from IIT, Kharagpur with an exam held in April 2024 and secured Elite + Silver Certificate.

- Dr S Swapna Kumar (Prof & HoD, ECE Dept) completed NPTEL Certification course on "Economics of Innovation held in October 2023.

Faculty Achievements

- Dr S Swapna Kumar (Professor, HoD) jointly with Mr. Abhilash Krishnan A (2020-24), Mr. Analram V S (2020-24), Mr. Abhinav P (2020-24) and Ms. Archana S (2020-24) published a paper on "Breathe Safely with Low-Cost Portable Ventilator" in the International Journal of Engineering & Technology, ISSN 2227-524X, Vol. 13 No. 2 (2024), pp 262-271.

- Ms Aswathy E R, Ms. Aiswarya P P (S8), Ms. Anjana P G (S8,), Ms. Anusha Jayakumar (S8), Mr. Ashish K M (S8) published paper titled " Smart E-Waste Management System" has been published in the International Research Journal of Modernization in Engineering Technology and Science (Peer-Reviewed, Open Access, Fully Refereed International Journal) e-ISSN: 2582-5208 Volume:06/Issue:04/April-2024. DOI : https://www.doi.org/10.56726/IRJMETS53548.

- Dr S Swapna Kumar (Professor, HoD), authored an article titled 'Mentoring and Coaching in Higher Education'. Now the article is published in the chapter of 'HRD Forum of Madhya Pradesh' (An initiative by Janmarg Manav Prashikshan Evam Jankalyan Samithi), ISBN No. 978-81-968707-2-0, Pages: 63-64, 3rd March 2024.

- Dr S Swapna Kumar as resource Person for one week "Skill Development and Training Program" (FDP/SDP) on "Multidisciplinary aspects of Low power Wireless Sensor Networks" during 24 – 29 July 2023 via online.

- Dr S Swapna Kumar (Professor, HoD) jointly with Ms Anagha Prabhakaran (Hardware Design Engineer Trainee,Z – Crossing Solutions, Vytilla) published a research paper "A Wireless Multifunctional Structural Health Monitoring System" in third IEEE Xplore International Conference on Advances in Computing, Communication, Embedded and Secure Systems (ACCESS).

- Dr S Swapna Kumar (Professor, HoD) jointly with Ms Pooja Sidharthan (Engineer, L&T Technology and Services, Mysuru) published a research paper "Energy Harvesting based Electromyography Analysis for Muscle Activity" in the third IEEE Xplore International Conference on Advances in Computing, Communication, Embedded and Secure ,Systems (ACCESS).

- Ms. Remya K R, Mr. Gokuldas M K, Ms. T S Nandana, Ms. Nandhana K U published a paper titled "Acoustic Levitation Using Ultrasonic Sensors and Arduino", in the International Research Journal of Modernization in Engineering Technology and Science Volume 06, Issue 06, June 2024 edition.

- Ms. Remya K R, Mr. Shinto Shaju, Ms. Thulasi K P, Ms. Unnimaya P U, Mr. Vishnu Subhash published paper titled "IoT based water quality monitoring system" in the International conference on recent trends in communication and embedded system technologies.

- Ms. Remya K R, Mr. Anag Kishore, Ms. Ashley Jenson, Ms. Della cherian, Ms. Devika A M published paper titled "Stress level monitoring by facial and speech analysis and generative alert system with remedies for academic level" in the International conference on recent trends in communication and embedded system technologies.

- Ms. Fetsy K Francis, Mr. Anad Rajeev ,Mr. Farooq Abdulla, Mr. Albino Shaju published paper titled "Smart Attendance System" in the International conference on recent trends in communication and embedded system technologies.

- Ms. Resmi K Rajan, Ms. Angelon Shaji, Ms. Anupama T S, Athul, Ms. Krishna TN, Mr. Fredy Francis, published paper titled "Blind and Non-Verbal Assist" in the International Research Journal of Research and analytical reviews.

- Mr. Santumon SD ,Ms. Akhila M, Mr. Amal Krishna, Ms. Anagha Abhilash K, Mr. Aswin Krishna, published a paper titled "Autonomous Wheelchair For Enhanced Accessibility" in the International Research Journal of Modernization in Engineering Technology and Science.
- Ms. Sagna L T published a paper titled "Skin Cancer Detection by Machine Learning" in the International Research Journal Of Modenization in Engineering Technology and Science.

Student Activities

Niranjan M S (S3,ECE Dept) was presented a token of appreciation for his academic excellence by CADD International on being the Semester topper (S2) in the event 'SUCCESS 2023' which was held at Regional Theatre, Thrissur on 09 December 2023. He scored SGPA 9.8 in second semester examinations. Mr T N Prathapan (Member of Parliament,Thrissur Constituency) inaugurated the function. Mr Krishna Teja IAS (District Collector,Thrissur) served as chief guest of the function.
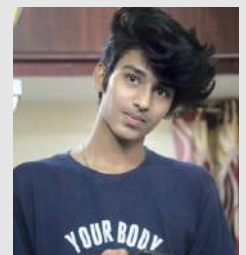

Ms. Navya K P of 2020-24 batch have qualified the GATE-2024 exam with flying colors! (GATE score: 370, All India Rank: 7092).

Ms. Nandana R Kumar (S7, ECE Dept) who secured second place in Bharathanatyam conducted as part of the art fest SAPTHA'23 in the national level multifest INVENTO'23 held on 17 September 2023 at Govt. Engineering college, Palakkad.

- Ms. Gayathri P A was a member of our college team which secured Third place in the University Intercollegiate Kabaddi Tournament held on 27-10-23 and 28-10-23 for the year 2023-24.
- Ms. Gayathri P A has secured Third place in 4 x 400 M. Relay Women in the 6th Intercollegiate Athletic Meet held at Chandrasekhar Nair Stadium. Thiruvanathapuram on 01,02 and 03 March 24.

Mr. Krishna P P has secured 1st prize in management fest "EXPRESSA' organised by the Department of Management Studies, St. Thomas College Thrissur on 24th Septmeber 2024.

Ms. Krishna A T successfully completed the course Digital Design with Verilog with a consolidated score of 49% conducted by NPTEL.

Faculty Interactions with Outside World

A full day workshop on "Design your PCB with wizard" was conducted for students of Government Polytechnic Kunnamkulam on 01 April 2024. The session started with a welcome address by Ms Nisha Gopinath (Lecturer, Electronics Dept, Govt Polytechnic Kunnamkulam. Ms Aswathy E R (Asst Prof, ECE Dept) handled the workshop. It was a one to one interactive session. More than 30 students from Electronics Department. attended the workshop.

A workshop on "Scientific writing using LaTeX" was conducted for the Computer Science Diploma students of Govt. Women's Polytechnic, Nedupuzha on 30th January 2024 which was organized by the Department of Computer Science under Visiting Faculty scheme. The Workshop was handled by Dr Swapna Kumar S (HoD , ECE Dept) and Ms Snehalatha O J (Asst Prof, ECE Dept) for assisting the session. A total of 48 students attended the workshop from CS department who are new to the LaTeX environment.

Dept conducted a field visit to the students of St. Francis HSS, Mattom on 20 October 2023. A total of 31 students (Tenth grade) and two teachers of Little Kites IT Club of the School attended the session The programme was started with a welcome address by Dr S Swapna Kumar, (HoD, CE Dept).

The first session of the day was a 3 D printing demonstration session and it was handled by Jeeva Haridasan Menon (S7, ECE Dept). Students were introduced to the software, Fusion 360 and the design methodology of 3D printing was briefed. Live 3D printing of a key chain with the name of the school printed on it was demonstrated. Ms Snehalatha O J (Asst Prof, ECE Dept), Ms Viji Vinodan (Trade Instructor, ECE Dept) and Ms. Shegi Prakash (Trade Instructor, ECE Dept) demonstrated the functionality of different types of microwave devices and made the students experience the effects of optical

The session was followed by a session on Robotics handled by Ms Jemy Jose Kakkassery (Asst Prof, ECE Dept). Students were introduced to different types of robots and their working was demonstrated. Assembly of line follower robot was also briefed. A session on LED products assembly, handled by Ms Shegi Prakash (Trade Instructor, ECE Dept) helped the students understand the different possibilities and applications of LED based products.

A workshop was conducted on 30 September 2023 at Government Women's Polytechnic, Nedupuzha. The program was organized by the Department of Electronics and Communication under ELSA. It was a full day interactive session on MATLAB & SIMULINK. Ms Sagna L T (Asst Prof, ECE Dept) handled the session. The session was attended by the entire students of S5 ECE (40 students) who are new to the MATLAB environment.

Conducted one day workshop based on 'Arduino" for the students of St Josephs and St Cyrils HSS School, Kunnamkulam on 07 October 2023. Ms Anju Vincent (Asst Prof, ECE Dept), Ms Hima Anna Thomas (Asst Prof, ECE Dept) and Ms Savthri K M (Asst Prof, ECE Dept) served as resource persons for the workshop. Arduino is an open-source electronics platform based on easy-to-use hardware and software A total of 50 students from the school attended the workshop.

A full day workshop on "Scientific writing using LaTeX" was conducted for the Diploma students of Govt. Women's Polytechnic, Nedupuzha on 07 October 2023 which was organized by the Department of Electronics and Communication under ELSA scheme The Workshop was handled by Dr Swapna Kumar S (Professor, HoD, ECE Dept) with the help of Ms Sagna L T (Asst Prof , ECE Dept). A total of 73 students attended the workshop from various departments(ECE,CSE and CE) who are new to the LaTeX environment.

The hands-on training 'ROBOTICS 101 ' which aimed at commencing basic and advanced concepts related to robotics to students from Chentrappini Higher Secondary School (CHSS) Chentrappinni was conducted on 14 August 2023 with the support of IEDC (Innovation and Entrepreneurship Development Center). The session was led by Jeeva Haridasan (S7, ECE Dept) and Augustine K Lazar (S7, ECE Dept). Ms Remya K R (Asst Prof, ECE Dept) and Ms Snehalatha O J (Asst Prof, ECE Dept) extended support to conduct the training. A total of 60 students attended the workshop. Ms Ashitha P R (Asst Prof, ECE Dept) co-ordinated the workshop.

The "Designing with wizard tools workshop" for the Diploma students was successfully conducted on Sep 16 2023 at Government Women's Polytechnic, Nedupuzha. The program was organized by the Department of ECE and IEDC - GWPTC. The resource person for the workshop was Ms Aswathy E R (Asst Prof, ECE Dept). Total 50 students from Govt. Women's Polytechnic Nedupuzha attended the workshop.
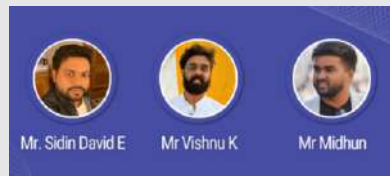
Alumni Interactions

The Department hosted an online alumni talk on 7 March 2024. Ms Kirti Susan(2008-2012 Batch) a distinguished alumna of the department currently working in Intel Bangalore served as the recourse person . The session began with an introductory talk by Dr Jeeva K A (Prof) and Mr Anil M (Asst Prof). Ms Kirti shared her personal and professional journey, highlighting key milestones, challenges faced and lessons learned along the way. She emphasized the importance of perseverance, adaptability, and seizing opportunities in shaping a successful career in ECE. Then further about the Multinational Corporations and the opportunities availing for the engineering grades which lead to a series of queries from students.

With an aim to align individual goals with professional ambitions, ensuring long-standing career success and happiness, an interactive session christened 'How to prepare for Better Placements' was held on 29th September 2023 under the auspices of Association of Vidya Alumni (AVA) for the final year students of the department.

Mr. Sidin David E   Mr Vishnu K   Mr Midhun

Sidin David E	2012-16, ECE Dept	Area Sales Man	Cyrix Health Care Pvt Ltd
Vishnu K	2012-16, ECE Dept	Intel Corporation Bangalore	Hardware Design Engineer
Midhun	2012-16, ECE Dept	Tata Consultancy Services-, Norway	Cloud Platform Engineer

On June 14, 2024, the department hosted an engaging online alumni interaction for prospective students of the 2024 admissions cycle. Distinguished alumnae Ms. Anitta Mariya and Ms. Delma Davis, both from the graduating class of 2016-2020, served as resource persons for the event.Ms. Anitta Mariya, currently a DFT Engineer at Silica Design, shared her insights into the evolving landscape of electronics and design for testability. Ms. Delma Davis, a software engineer specializing in Cloud Computing at Inspirisys Solutions Ltd., discussed the pivotal role of cloud technology in modern engineering.Together, they led an interactive session titled "ECE Way to Future," aimed at inspiring and guiding the next generation of engineers. The session provided valuable perspectives on career paths and emerging technologies, equipping attendees with the knowledge to navigate their future in electronics and communication engineering.

Newsletter Release

Dept released an annual newsletter titled 'Encircle' : Volume 10 on 27th September 2023. The first copy was handed over by Dr S Swapna Kumar (Professor, HoD, ECE Dept) to Dr Saji C B (Principal)The newsletter highlights all the events and achievements of staff and students in the Department.

Technical Magazine Release

Dept released its fourth edition of the technical magazine Wissen 4.0 on 05 April 2024. Dr Saji C B (Principal) released the magazine in the presence of Chief Guest Mr. Albin James (Alumni 2013 – 2017 batch). Dr. S. Swapnakumar received the first copy of the magazine. The department association coordinator Ms. Honeymol P K (Asst Prof), Ms. Remya K. R (Staff Editor), and Ms. Hima Anna Thomas (Staff Editor) coordinated the event. The ECE staff members and students graced the occasion with their presence.

Dept. conducts FDP

'The Faculty Development Program (FDP) on "Practical Aspects of Communication Engineering with Hands-on" was conducted during 22- 24 February 2024. Inauguration of the FDP was done by Er Gouthaman P K (Adjunct Faculty, CSE Dept and Senior Director & Head of Network Resource Management(Retd), Etisala). Er. Gouthaman P K detailed about Telecom operation management. It involves managing functions like network inventory management, managing provisioning issues, network availability & fault management, customer experience management etc.

Dr S Swapna Kumar (HoD, ECE Dept) handled the afternoon session on 22nd February 2024. He detailed the Energy efficient WSN and IoT Communication for conceptual Practical application. Dr Rajesh G (Assistant Professor, Department of ECE, Indian Institute of Information Technology, Kottayam) introduced Python programming for communication and also detailed Pulse code modulation in detail on 23rd February 2024.On 24th February 2024 Er T K Kuttappan (Consultant-KSEB, Formerly RF Engineer, Etisalat), also the Patron Trustee of VICT.He discussed Optical fiber communication in detail. He also gave hands-on experience in the procedure of splicing and introduced Optical Time Domain Reflectometer (OTDR), which is a device that tests the integrity of a fiber optical cables.OTDR is used for building, maintaining and troubleshooting fiber optic systems. The session ended with hands-on activities in OTDR .

Glimpses of Vyvidh 2024

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