



CANARA ENGINEERING COLLEGE

SUDHINDRA NAGARA, BENJANAPADAVU, BANTWAL TQ, D.K - 574219



Department of
ELECTRONICS AND COMMUNICATION ENGINEERING

JULY-23 TO DEC-23

DHWANI

VOLUME 14, ISSUE 1,



HIGHLIGHTS:

- Staff Achievements
- Students Achievements
- Department Activities



EDITORIAL



Dr. Dayananda G K
Professor & HOD
Department of E&C



Mr. Sandeep Prabhu M
Assistant Professor
Department of E&C

STUDENT MEMBERS



Ms. Shubha Sudesh Shetty



Ms. Sindhu Shenoy M



Ms. Aishwarya H S



Ms. Kavya

VISION

To be a center of repute by imparting quality education to produce globally competent graduates with human values

MISSION

- Create conducive environment for overall development of students.
- Equip the students with technical skills to bridge the gap between academia and industry.

DEPARTMENT PROFILE

Electronics and Communication (EC) engineering broadly deals with systems related to acquiring, communicating, manipulating and analyzing information. To put it in simple words EC covers wide area of applications from small sensor to huge satellites, simple calculators to super computers, microwave ovens to missiles, mobile phones to medical electronics, automation in industries to electronics in automobiles etc. EC has achieved fastest technology growth ever among all domains of engineering and has registered its spread in almost all areas of application. Presence of EC has become ubiquitous and has undoubtedly become one of the basic branches in Engineering. Because of the nature of curriculum that EC Engineers study, they have plenty of career opportunities not only in the core area of Electronics and Communication but also in allied areas like Instrumentation, Computer Engineering, Aeronautical Engineering., Mechatronics, Bio-medical etc. The Faculty members are Highly Experienced and dedicated in mouldings the students to cope with competitive career, higher studies and research activities Faculty members have published many international journal papers, attended many workshops and FDP. The department has a close interaction with the alumni and is continuously using their inputs for betterment of the curriculum and research facilities to meet the industrial needs. Keeping an eye on the need of the industry and the society, department of Electronics and communication Engineering has been conducting numerous core technical workshops for both students and faculty members to meet the vision and mission of the department and eventually of the college. The department is committed to work toward quality education through innovative teaching and learning processes, state-of-the-art facilities and conducive academic ambiance.

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

- Succeed in their professional career.
- Apply the knowledge of Electronics and Communication to address technological problems of industry and society.
- Demonstrate leadership qualities and exhibit professional standards.

PROGRAMME OUTCOMES (PO)

Engineering graduates in Electronics and Communication Engineering will be able to :

- Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice
- Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.
- Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences
- Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of and need for sustainable development.
- Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PROGRAMME SPECIFIC OUTCOMES (PSO)

- Ability to specify, design, build and test analog, digital, embedded systems and to apply programming skills in the relevant fields.
- Ability to understand and apply modern wired and wireless analog and digital communication systems for existing problems.

STAFF ACHIEVEMENTS

Online Course

NPTEL

- Mrs. Jayashree K Assistant Professor in Electronics and Communication Engineering Department has obtained Elite Certificate in the course Deep Learning conducted by NPTEL in the month of Jul-Oct 2023.
- Mrs. Jayashree K Assistant Professor in Electronics and Communication Engineering Department has obtained Certificate in the course Natural Language Processing conducted by NPTEL in the month of Jul-Oct 2023.
- Mrs. Jayashree K Assistant Professor in Electronics and Communication Engineering Department has been honoured with a certificate of appreciation as an NPTEL discipline star in Computer Science and Engineering for Jul-Dec 2023.
- Mrs. Jayashree K, Assistant Professor, Electronics and Communication Engineering Department, has earned the prestigious NPTEL Domain Certification in Data Science (Computer Science)! Having tackled 6 challenging courses in less than 2 years, her achievement serves as an inspiration to aspiring data scientists and a testament to the rigorous academic approach of NPTEL.



WORKSHOP/FDP ATTENDED



Mrs. Akshatha G Baliga has attended five days workshop on “Deep Learning” organized by SIT Mangalore from 24/07/2023 to 28/07/2023



Mrs. Rajitha A A has attended five days workshop on “VLSI to SYSTEM DESIGN” Organized by AICTE, ARM and STMicroelectronics from 31/07/2023 to 04/08/2023



Mrs. Savitha Acharya has attended five Days FDP on “**Application of AI tools for research and publications**” from 08/08/2023 to 120/8/23. organized by NMAMIT, Nitte.



Mrs. Rajitha A A has attended FDP on “**Computer Vision Using OpenCV**” on 7/8/2023 to 11/8/2023. Organized by NITTTR , Chandigarh.



Mr. Sandeep Prabhu M has attended FDP on “**Cloud Practitioner (AWS)**” from 25/09/2023 to 29/09/2023 conducted by ICT Academy.



Mrs. Savitha Acharya has attended FDP on “ **Research Methodology** ”from 08/01/2023 to 10/01/2023. Organized by IIT, Madras.

PAPER PUBLISHED IN JOURNALS/CONFERENCE /BOOK CHAPTERS



Mr. Sandeep Prabhu M has published a paper in **Gradiva Review Journal** titled “**Crop Soil Detection**” on 23/07/2023



Mr. Dayananda G K has published a book chapter titled “**Dictowriter: Speech to Text Plotter**” in **Advances in VLSI, Signal Processing, Power Electronics, IoT, Communication and Embedded Systems** book on 29-08-2023 in Springer, Singapore.



Mrs. Akshatha G Baliga has published a book chapter titled “**Dictowriter: Speech to Text Plotter**” in **Advances in VLSI, Signal Processing, Power Electronics, IoT, Communication and Embedded Systems** book on 29-08-2023 in Springer, Singapore.



Mr. Manjunath I R has published a book chapter titled “**Dictowriter: Speech to Text Plotter**” in **Advances in VLSI, Signal Processing, Power Electronics, IoT, Communication and Embedded Systems** book on 29-08-2023 in Springer, Singapore.



Dr. Dayananda G K has published a patent titled “**NANHE KADAM: LEARNING KIT FOR SPECIAL CHILD**”, Application No.202341053116 A, journal date 1-9-2023, IPO India



Ms. Ashwini Holla V R has published a patent titled “**NANHE KADAM: LEARNING KIT FOR SPECIAL CHILD**”, Application No.202341053116 A, journal date 1-9-2023, IPO India



Mrs. Rajitha A A has published a patent titled “**NANHE KADAM: LEARNING KIT FOR SPECIAL CHILD**”, Application No.202341053116 A, journal date 1-9-2023, IPO India



Mr. Vayusutha M has published a patent titled “**NANHE KADAM: LEARNING KIT FOR SPECIAL CHILD**”, Application No.202341053116 A, journal date 1-9-2023, IPO India



Mr. Vinay H S has published a patent titled “**NANHE KADAM: LEARNING KIT FOR SPECIAL CHILD**”, Application No.202341053116 A, journal date 1-9-2023, IPO India



Mr. Sreerama Samartha J.G has published a patent titled “**NANHE KADAM: LEARNING KIT FOR SPECIAL CHILD**”, Application No.202341053116 A, journal date 1-9-2023, IPO India



Dr. Dayananda G K has published a paper titled “**Efficient Real-Time Face Recognition with Adaptive Boosting Artificial Neural Networks**” in Control Instrumentation System Conference (CISCON) at Manipal Institute of Technology, MAHE, Manipal from 06-10-2023 to 07/10/2023.



Mr. Vayusutha M has published a paper titled “**Efficient Real-Time Face Recognition with Adaptive Boosting Artificial Neural Networks**” in Control Instrumentation System Conference (CISCON) at Manipal Institute of Technology, MAHE, Manipal from 06-10-2023 to 07/10/2023.



Mr. Vinay H S has published a paper titled “**Efficient Real-Time Face Recognition with Adaptive Boosting Artificial Neural Networks**” in Control Instrumentation System Conference (CISCON) at Manipal Institute of Technology, MAHE, Manipal from 06-10-2023 to 07/10/2023.



Mr. Sreerama Samartha J.G has published a paper titled “**Efficient Real-Time Face Recognition with Adaptive Boosting Artificial Neural Networks**” in Control Instrumentation System Conference (CISCON) at Manipal Institute of Technology, MAHE, Manipal from 06-10-2023 to 07/10/2023.



Dr. Dayananda G K has published a paper titled “**A Novel CNN Approach for Efficient ARECA Nut Sorting Machine**” in Control Instrumentation System Conference (CISCON) at Manipal Institute of Technology, MAHE, Manipal from 06-10-2023 to 07/10/2023.



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STUDENT ACHIEVEMENTS



Mr. Aditya P has participated in the regional meet held on 09/12/2023 at REVA University, Bengaluru

Ms. S Sanjana Pai Poster competition organized by SIGHT activities committee of IEEE Mangalore Subsection on 29/09/2023 with the theme: Sustainable Development Goal 14-Life below water



Ms. S Sanjana Pai has Coursera certificate on Foundation of project Management course on 22/07/2023

Ms. S Sanjana Pai has completed the Postman Classroom Program conducted by Centre for Open Source Software and Hardware NITK in collaboration with Postman on March 21 2023



Ms. Sindhu Shenoy has completed the Postman Classroom Program conducted by Centre for Open Source Software and Hardware NITK in collaboration with Postman on March 21 2023

Mr. Subramanya Baliga has completed the Postman Classroom Program conducted by Centre for Open Source Software and Hardware NITK in collaboration with Postman on March 21 2023





Mr. Sathwik has participated in Drone Competition challenge of TechnoXian held at Noida Indoor Stadium Complex Noida NCR from 25th - 27th July 2023.

Ms. Spandana Shetty has successfully completed DSP Basic Concepts and Algorithms an Online Non Credited Course authorised by EPFL Lausanne offered through Coursera on Aug 31 2023



Mr. Sathwik has participated in a 1 week workshop on Design and usage of Real world Drones conducted at REVA School of Electronics and Engineering , REVA University from 8th - 13th January 2023.

Ms. Spandana Shetty has secured 1st place in Micro Project Exhibition by ECE Dept on 6th December 2023



Ms Sonali has participated in Yoga Dayheld on 21/6/2023 at CEC Sudhindra Nagar Benjanapadavu

Ms .Thashwini B.J has participated in cultural event organized during the visit of the peer committee, national assessment and accreditation council (NAAC) on 8th June 2023



Ms Veekshitha shetty has participated in state level Kabaddi tournament. held on 2/08/2023 at Chikballapur organized by VTU Belagavi.

Ms. Thashwini B. J has participated as a trainer in innovation with C language workshop for Students of SSLC , at SAT school Manjeshwar conducted on 15th ,16th,17th may 2023



Mr. Sathyam Bhat has successfully completed signal processing : Basic Concepts and algorithms a online non credit course through courseera

Mr. Roopesh Harikanth participated in bodybuilding competition held on 1/9/2023 to 02/09/2023at Vemana Institute of Technology, Bangalore



Ms. Rashmi has successfully completed coursera course on “Digital signal processing 1:Basic concept and algorithms”.

Ms .Pragathi Shashikant Naik has successfully completed coursera course on “Code yourself An Introduction to programming “.





Ms. Pooja Laxman Achari was arranged by M R Pai foundation held on 26/7/2023 to 27/7/2023 at mumbai

Ms. Pragathi Naik has successfully completed Arduino test conducted remotely from IIT Bombay on July 26th 2023, she scored 97.50%



Ms. Nagarathna Ganiga has successfully completed coursera course on "Digital signal processing 1: Basic concept and algorithms"

Ms. Nija K n has successfully completed coursera course on "Digital signal processing 1: Basic concept and algorithms"



Mr. Puneet Gajanana Naik has successfully completed coursera course on "Digital signal processing 1: Basic concept and algorithms"

Ms. Sahana Naik has successfully completed coursera course on "Digital signal processing 1: Basic concept and algorithms"



Ms. Ninja Nibu has successfully completed Arduino test conducted remotely from IIT Bombay on July 26th 2023, she scored 87.50%

Ms. Nagarathna Ganiga has successfully completed Arduino test conducted remotely from IIT Bombay on July 26th 2023, she scored 97.50%



Mr. Rolvish Fernandes participated in Drone Competition challenge held at Noida NCR from 25th to 27th July 2023.

Ms. Nagarathna Ganiga has successfully completed the Skillup online course on PMP Basics on 16th Sep 2023.



Ms. Ninja K N has secured 1st place in the event IDEATHON COMPETITION conducted by Technovation Club on 5/12/2023 at CEC

Ms. Nagarathna has secured 1st place in the event IDEATHON COMPETITION conducted by Technovation Club on 5/12/2023 at CEC





Mr. Prasad of 3rd semester has secured first place in Ideathon Competition conducted by Technovision club on 30/12/2023 held in Canara Engineering College

Ms. Prathiksha J Nayak of 3rd semester has secured first place in Ideathon Competition conducted by Technovision club on 30/12/2023 held in Canara Engineering College



Ms. Prapthi Y Poojary of 3rd semester has secured first place in Ideathon Competition conducted by Technovision club on 30/12/2023 held in Canara Engineering College

Ms. Prathiksha J Nayak of 3rd semester participated in a one day symposium on incubation facilities for startups "Creating impact in the startups ecosystem" held on 9 December 2023 at KCCI, Magaluru.



Ms. Prapthi Y Poojary of 3rd semester participated in a one day symposium on incubation facilities for startups "Creating impact in the startups ecosystem" held on 9 December 2023 at KCCI, Magaluru.

Ms. Neha Sahana of 3rd semester have completed the postman classroom program conducted for open source software and hardware at NITK surathkal in collaboration with Postman on 30th August, 2023.



Ms. Akruiti Shetty of 3rd semester have completed the postman classroom program conducted for open source software and hardware at NITK surathkal in collaboration with Postman on 30th August, 2023.

TOPPERS

CANARA ENGINEERING COLLEGE
 BENJANAPADAVU, BANTWAL TALUK, DK - 574219

Department of Electronics & Communication Engineering

Congratulations!
 4th Sem Toppers

 1 Pooja Laxman Achari 4CB21EC029 SGPA: 9.0	 2 Aishwarya H. S. 4CB21EC001 SGPA: 8.91	
 3 Nisarga B. U. 4CB21EC028 SGPA: 8.55	 3 Sannidhi Shenoy 4CB21EC045 SGPA: 8.55	 3 Kanchika Subhas Shetty 4CB21EC018 SGPA: 8.55

Opportunities don't happen, you create them!

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CANARA ENGINEERING COLLEGE
BENJANAPADAVU, BANTWAL TALUK, DK -574219

Department of Electronics & Communication Engineering

Congratulations!
6th Sem Toppers

2
AMEL RAYAZ BAILUR
4CB20EC006
SGPA: 8.75

1
KRUPALI
4CB20EC017
SGPA: 8.79

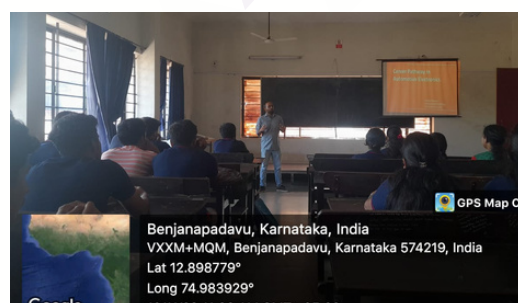
3
KRITHIK S. KOTYAN
4CB20EC016
SGPA: 8.67

Opportunities don't happen. you create them!

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DEPARTMENT ACTIVITIES

A talk about "Career Pathway in Automotive Electronics" was scheduled on 10/11/2023 at 11:00 AM. Students received an introduction to automotive electronics from Mr. Akshay Shenoy K, an alumnus of the Electronics and Communication Engineering department who currently holds the position of software quality manager at Bertrand France SAS. He also discussed job options in the automobile sector. He talked with the students about prospects for further education overseas and professional advancement in the automotive sector. About 22 students from the department of Electronics and Communication Engineering came and gained from the discussion. The Alumni Association and IIC collaborated to host this presentation.



TECHNICAL EVENTS

"Design Thinking ESP8266 IoT Workshop: Hands-On Introduction to Sensor Integration and Smart Device Programming" conducted by Mr. Sreerama Samartha J G on 02/12/2023 at EC Seminar Hall

Coordinators of the event were Mr. Guruprasad, Mr. Srinidhi and Ms. Sinchana Hegde and Mr. Pratham Kamath of 5th semester ECE



Design Thinking: PCB Design excellence in the internet of things workshop was scheduled from 23/11/2023 to 25/11/2023 (9 am to 4:30pm), the target audience being second year EC students. Kakunje software CEO and Employs gave exposures to the PCB Designs & Design thinking. Workshop is coordinated by Mr. Vinay H S and Mrs. Akshatha G Baliga, Hosted by Department of ECE in association with IIC & IEEE.



Design thinking, ideation & prototyping workshop was scheduled from 11/11/2023 to 25/11/2023 (9 am to 4:30pm), the target audience being final EC students. Kakunje software CEO and Employs gave exposures to the PCB Designs & Design thinking, ideation & prototyping. Workshop was coordinated by Mr. Vinay H S and Mr. Sandeep Prabhu M



Antenna, Physical Design and virtualization in cloud computing Workshop on Physical Design using Cadence, Antenna Design and Phased array and Beamforming for 5G and Cloud virtualisation was organised by the ECE Department of CEC and IEEE SB CEC in association with IEEE MSS. The resource people for the event were Dr. Shylashree N, Associate Prof Department of ECE RVCE, Dr. Shushrutha, Associate Prof Department of ECE, and Dr. Sahana B Assistant Prof Department of ECE, all from RV College of Engineering Bangalore. The event was benefitted by 10 students of VCET Puttur, four students from Srinivas Institute of technology Valachil, and 68 students from CEC all from the ECE background.

Socket Programming

Socket Programming Workshop Explores Communication Networks at Canara Engineering College* The Department of Electronics and Communication Engineering, at Canara Engineering College, in association with IIC and Team R&D ECE, organized a workshop on Socket Programming on August 3, 2023. The session focused on giving a brief overview of the various components involved in communication networks for establishing internet connectivity. Dr. Ganesh V. Bhat discussed how sockets can be configured using appropriate port numbers and used to retrieve data from the transport layer. The session ended with programs demonstrating how data could be fetched and processed, displayed, or changed.



Micro Project exhibition was held on 6/12/2023 from 2:00 PM onwards in Hardware Lab 1 and 2 of ECE Department. 22 teams of 5th semester ECE participated in the exhibition and showcased their projects

Waveform Insight

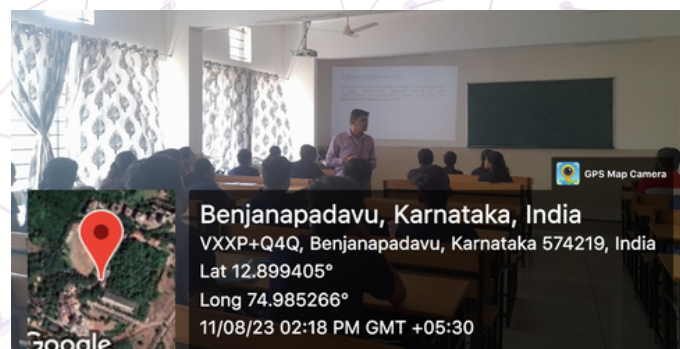
The Department of Electronics and Communication Engineering organized a hands-on work shop called "Waveform Insight" for first-year ECE students on August 22, 2023. The resource person for this session was Prof. Vayusutha M and Prof. Vinay HS from the Department of Electronics and Communication Engineering. During this session, students learned about calibrating Analog CRO, measure frequency and amplitude, feeding external signal from function generator, setting up signals like sine, square, triangular wave from function generator. Prof. Sandeep Prabhu M and Prof. Sreerama Samartha J G coordinated the event. A total of 52 students benefited from this technical talk.

Electroscope

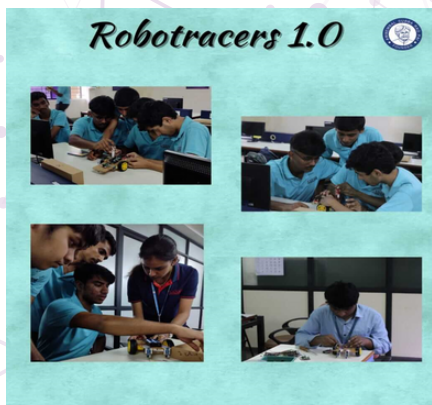
The Department of Electronics and Communication Engineering organized a hands-on work shop called "ElectroScope" for first-year ECE students on August 16, 2023. The resource person for this session was Prof. Sandeep Prabhu M and Prof. Sreerama Samartha J G. from the Department of Electronics and Communication Engineering. During this session, students learned about calibrating Analog CRO, measure frequency and amplitude, feeding external signal from function generator, setting up signals like sine, square, triangular wave from function generator. Mr. Vayusutha M and Mr. Vinay HS coordinated the event. A total of 54 students benefited from this technical talk.

Company specific training: Tessolve

Department of Electronics and communication organizing an one day company(tessolve) specific training for 6th semester ECE students. 40 students are benefited from this training program. Mr. Vayusutha M talks about analog filter circuits. Mr Sreerama Samarth J G talks about Diodes transistor and Opamps. The event is coordinated by Mr. Vinay H S.



Robotracers 1.0



CANARA ENGINEERING COLLEGE

Robotracers: Designing Line-Following robots for true autonomy

The Technovation Club conducted a hands-on workshop on ROBO-TRACER, an event centered around designing line-following robots for accurate and precise anatomical navigation on November 29th, 2023. The first session catered specifically to beginners of Line-Following Robots, attracting 58 enthusiastic participants. This innovation focuses on a line-following robot project, demonstrating how to create a versatile robot adept at following a designated path. The line follower robot's working mechanism remains consistent throughout. Attendees actively engaged with the project, highlighting the creation of a versatile robot capable of navigating designated paths with precision

Computing Trends & PARAM Utkarsh Supercomputer Presentation & Demo

PARAM Utkarsh is a HPC system setup at C-DAC, Bangalore under National Supercomputing Mission (NSM). It offers peak computing power of 838 Teraflops. The aim of the webinar was to promote PARAM Utkarsh Supercomputer as a tool for students and to educate students/faculties in HPC technologies. Participation was free, but registration was compulsory. Ms. Raksha the Club advisor for Technovation registered to procure the dedicated links for the webinar. Mr S Vaibhav Prabhu ECE 2nd year and Mr Anirudh Udupa CSBS 2nd year and Mr. Shushant Singh AIML 1st year were the student coordinators who conducted the event. A total of 76 students registered for the event