ELEKTRA

Newsletter of Electronics & Communication Engineering .

January 2024

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From the HOD's Desk

I am happy to note that the Department of Electronics and Communication Engineering is releasing its Newsletter for A. Y. 2023-24 odd Semester enumerating the various activities and achievements of our students. The department endeavors to produce confident professionals tuned to real time working environment. The department offers excellent academic environment with a team of highly qualified faculty members to inspire the students to develop their technical skills and inculcate the spirit of team work in them.

Prof Vinod G
Head of the Department
Department of Electronics &
Communication Engineering

OUR VISION

To excel in the field of Electronics & Communication engineering by fostering persistent learning and research while instilling values and shaping socially responsible professionals.

OUR MISSION

1. To cultivate an inspiring learning atmosphere that empowers stusdents to embark on challenging careers in the dynamic field of elecstronics and communication benefiting the society.

2. To enhance the students with a strong technical foundation to pursue higher education and research in the relevant fields, fostering a passion for life long learning and innovation.

3.To cultivate technical, ethical and sustainable practices for the welfare of the society.

PROGRAM EDUCATIONAL OBJECTIVES(PEOs)

To enable our graduates to apply sound technical knowledge acquired during their course to creatively solve technical problems in academic research and industrial sectors.

To inculcate technical and professional skills for pursuing postgraduate studies from reputed institutions in electronics, communication, and related engineering or managerial fields.

To equip our graduates with professional leadership qualities to coherently deliver in a team or to become a successful entrepreneurs with ethical and moral values for the betterment of the society.

PROGRAM SPECIFIC OUTCOMES(PSOs)

The ability to absorb and apply fundamental knowledge of core Electronics and Communication Engineering subject in the analysis, design and development of various types of electronic system as well as to interpret and synthesize the experimental data leading to valid conclusion.

Competence in using state of the art tools in Electronics and Communication Engineering, both software and hardware, for the design and analysis of different system in furtherance of research activities.

Ability to gain technological_insight for solving challenging problems in engineering systems especially in the area of Electronics and Telecommunication.

PROGRAM OUTCOMES

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems

Problem analysis: Identify, formulate, research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

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.

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.

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.

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.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

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.

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.

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.

PLACEMENTS

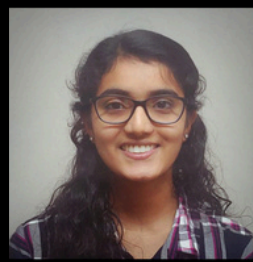| Company	Count
Tarento	14
Alstom	8
Tata Elxsi	7
Integrated	6
Artech	3
Poornam	3
Speridian	2
Kalki Tech	1
Accenture	1

EVEN SEMESTER TOPPERS

Arya Sankar

Sneha S

Gopika G Krishnan

T R Nakul

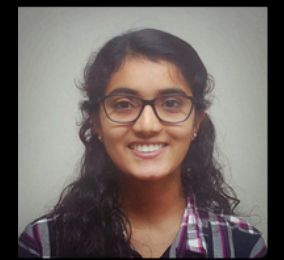
Achuthapramod K K

Salini K

Meera K B

P S Sudharsan

ODD SEMESTER TOPPERS

Gopika G Krishnan
S7 ECE-A

T R Nakul
S7 ECE-B

Archana G
S5 ECE-A

Tanya Sanjeev Nair
S5 ECE-B

Akshaya Krishna
S3 ECE-A

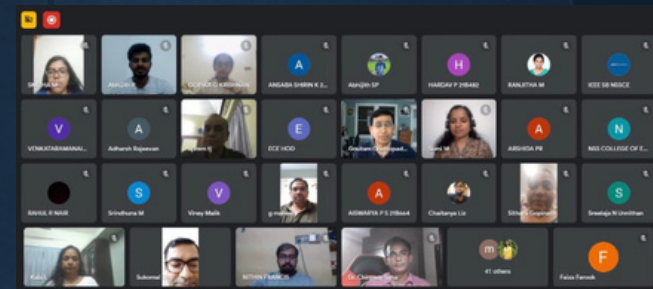
P S Sudharsan
S3 ECE-B

Aiswarya G
S1 ECE-A

Sreehari S
S1 ECE-B

Activities conducted by the department

1.Inauguration of student branch chapter IEEE Microwave Theory and Technology society

The event was organized by the Department in association with IEEE MTT-S Student Branch Chapter at NSSCE on 1st of July 2023. Dr. Sumi M, the Faculty Advisor for IEEE MTT-S and Associate Professor in the Department of ECE at NSSCE, set the tone with a welcoming address.The inaugural was addressed by Dr. Apren T J, IEEE MTT-S Chair of the Kerala Chapter and President of Research and Development at NeST, SFO Technologies, while the presidential was addressed by Dr. Goutam Chattopadhyay, IEEE MTT-S MGA Chair and Senior Research Scientist at NASA-Jet Propulsion Laboratory, California Institute of Technology, added . Dr. Chinmoy Saha, Region-10 Coordinator for IEEE MTT-S and Associate Professor at IIST, Thiruvananthapuram, delivered the keynote address.The felicitation segment acknowledged the contributions of Dr. P R Suresh, Principal of NSSCE, Prof. Vinod G, Head of ECE Department, Dr. Vijitha S,SBC Counselor for IEEE SB NSSCE. The event epitomized the essence of microwave theory and innovation, uniting experts and enthusiasts to ignite progress and pave the way for future advancement.

2.Talk Session on ChatGPT-Emerging Entrepreneurial Opportunities

The department conducted a talk session on ChatGPT, unveiling emerging entrepreneurial opportunities on 7th of August 2023 at the ECE Seminar hall. The session was handled by Mr.Prakash Bare,Indian theater and film actor who is also a proud alumni. The talk session aimed to illuminate the entrepreneurial opportunities arising from ChatGPT and AI, emphasizing the transformative potential of natural language processing.
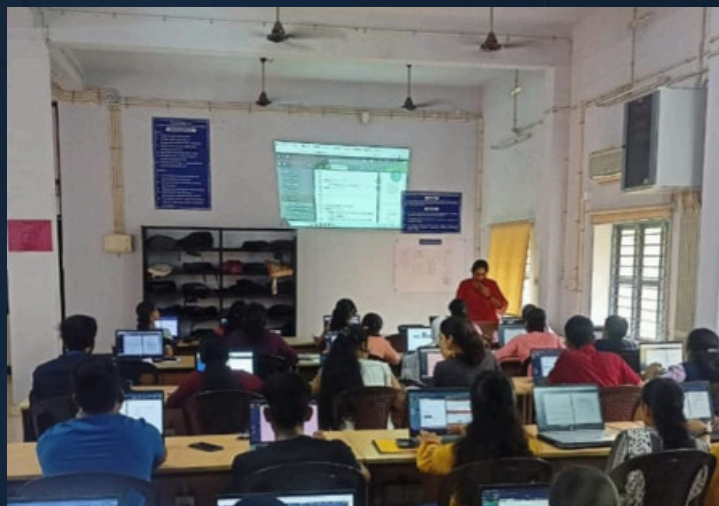
3. Hands on Workshop on LaTeX

The department organized a hands-on workshop on LaTeX at the campus networking cell (CNC) on 18th August 2023. The session was handled by Mrs.Jyothsna S , Research Scholar , IIT Palakkad. The "Hands-on Workshop on LaTeX" provided participants with a comprehensive learning experience, focusing on LaTeX's unique workflow, mathematical typesetting, customization, collaboration, and troubleshooting, empowering them to create polished, professional documents with precision and efficiency.

4. Workshop on Planar Antenna Modelling and Simulation

The Department of Electronics and Communication, NSS College of Engineering Palakkad in collaboration with IEEE APS Kerala Chapter and IEEE SB NSSCE conducted a Two-day Workshop on "Planar Antenna Modelling & Simulation", on 21st & 22nd August 2023. Welcome Speech by Dr. Sumi M, Associate Professor ,Department of ECE,NSSCE.Inaugural Address by Dr. Gopikrishna M,Assistant Professor,Govt. Victoria College, Palakkad.The workshop comprehensively addressed antenna fundamentals, mathematics, radiation theory, and practical application, integrating hands-on experiences with diverse antenna design and simulation approaches, and further conducted in-depth analyses using CST Studio Suite 2023 for various antenna designs.

5.Workshop on LaTeX

The department organized a three-day hands-on workshop on LaTeX at the campus networking cell (CNC) on 11th,12th and 13th September 2023. The session was handled by Mrs.Jyothsna S , Research Scholar , IIT Palakkad.Throughout the three-day workshop, participants immersed themselves in the world of LaTeX. The curriculum encompassed critical topics such as document structuring, intricate formatting techniques, automated referencing, and collaborative document editing.It significantly enhanced participants' scholarly and professional communication skills, enabling them to effectively convey engineering concepts and research findings.

6. Introduction to Python Programming Workshop

The department organized a three-day workshop on Introduction to Python at the campus networking cell(CNC) on 13th,14th and 15th September 2023.The session was handled by Mrs.Bijin Elsa Baby , PMRF Scholar, IIT Palakkad.This Workshop was a transformative three-day program that provided attendees with a comprehensive understanding of Python's versatility and practical applications.The workshop's structured approach, combining theory and hands-on exercises, ensured that participants left with a deep appreciation for Python's power and potential in various domains. It was indeed a rewarding journey into the world of Python, leaving all participants inspired and equipped to explore further in this exciting field of programming.

7. Seminar on Industrial Automation

In a dynamic session on October 9, 2023, Sreelal,Project coordinator of IPCS Global led an illuminating seminar on Industrial Automation at the ECE Seminar Hall. Attendees delved into the transformative impact of automation, gaining insights into PLCs and their distinctions from microcontrollers. The session concluded with a glimpse into the future of power systems in factories, offering a concise overview of their operational dynamics. This event provided a succinct yet comprehensive understanding of the technological evolution shaping the future of industry.

8. Seminar on Gate Exam and its Importance

Department of Electronics and Communication Engineering conducted a Seminar on Gate Exam and Its Importance on 10th of October 2023 at the College Auditorium ,NSSCE. The session was handled by Dr. Swaroop Sahoo , Asst . Professor ,Dept of Electrical Engineering ,IIT Palakkad .The "Seminar on GATE Exam and Its Importance" provided participants with insights into GATE 2024, covering exam details, subject options, NPTEL study resources, diverse opportunities, and an engaging QnA session, ultimately offering valuable knowledge about the exam and its prospects.

9. Workshop on India's Indigenous Vega Processor and Ecosystem

Department of ECE and ICE in association with C-DAC sponsored by ISTE Palakkad Chapter conducted a 2- day workshop on India's Indigenous Vega Processor and Ecosystem at CNC Hall on 12th and 13th October 2023. The workshop was conducted by the C-DAC team. Participants at the two-day workshop immersed themselves in exploring VEGA processors and board versions, engaging in hands-on experiments with various sensors and logical approaches, culminating in a comprehensive IoT session featuring Adafruit, reinforcing practical integration of technology and real-world applications, all under the guidance of expert facilitators.

Faculty Achievements

Dr. Sumi M and Gopika G Krishnan of S7 ECE have been awarded 2023 AP-S Research scholarship of $3,000 USD for the research project "Planar Multiresonators based Chipless RFID tag for IoT Applications".

Student Achievements

- Surabhi Rajesh of S7 ECE was selected in the IEEE Education Global YP AdHoc Team, Secured first position in Shark Tank, a state-level competition conducted by IEEE Kerala Section Women in Engineering Affinity Group, Secured first position in Miss Aura, Feature Forge and Crisis Ready competition conducted as a part of state level virtual tech fest of IEEE SCT SB.

- Athulya S, Adwaitha U and Gopika G Krishnan of S7 ECE were selected as interns at VSSC, Trivandrum.

- Salini K and Vani Lakshmi of S5 ECE were selected as interns at VSSC, Trivandrum.

- Anet George of S5 ECE was selected as Electronics communication coordinator of IEEE Sight Kerala Section.

- Anjana KP of S5 ECE was selected as Malabar Hub Student Representative IEEE IA/IE/PELS Jt kerala.

- Alfiya K OF S5 ECE was selected as NRPF Thrissur Palakkad regional coordinator.

- P Niveditha Menon of S5 ECE secured 1st place in Group dance at "RASAM" Providence College and Advay Toch H Institute of Science and Technology and 3rd place at Sanskriti, MAC E, kothamangalam

Sports Achievements

Sudev A of S1 ECE secured championship in Ezone football.

Radhika of S1 ECE secured 3rd position in Ezone handball competition and selected for Interzone positioning her to open selection for university.

Namitha M Reji & P V Aryangana of S5 ECE secured 3rd position in Interzone women's volleyball.

Kalidas C K of S7 ECE secured 3rd place in E-Zone men's Kabaddi.

Aravind Krishna of S7 ECE secured 1st place in E-Zone men's Volleyball.