ATME®
College of Engineering

ELECTRONICS & COMMUNICATION ENGINEERING

ECHELON-ECE

Department Newsletter

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Message from Principal

Proud to present the latest edition of our ECE newsletter, highlighting the remarkable efforts of our faculty and students. Best wishes to the team for ongoing excellence.

Regards
Dr. L Basavaraj
Principal, ATMECE

Message from HoD

It is a privilege to present Volume 12, Issue 1 of the ECE Department newsletter. This edition showcases the collective dedication and achievements of our faculty, staff, and students. I sincerely thank all contributors and encourage continued excellence in all endeavors.

Sincerely
Dr. Prathibha M K
HOD, ECE

Editorial Committee

Chief Editor

Dr. Prathibha M K
HoD, Dept. of ECE

Editor

Mr. Chandra Shekar P
Assistant Professor,
Dept. of ECE

Member

Mrs. Madhurya M Eshwar
Assistant Professor
Dept. of ECE

Student Members

Mr. Yashwanth C N
Mr. Shashanka
Ms. Keerthana
Ms. Rakshitha M

About the Department

The Department of Electronics and Communication Engineering at ATME College of Engineering was established in 2010 with an initial intake of 60 students, which was increased to 120 in 2012 owing to rising academic demand. The department offers a four-year B.E. program and Doctoral programs, with a strong focus on both core and advanced domains such as Wireless Communication, Signal and Image Processing, VLSI and Embedded Systems, Biomedical Engineering, and Advanced Control Systems. Accredited by the National Board of Accreditation (NBA), New Delhi, the program reflects high academic standards and a commitment to continuous improvement. The department is supported by state-of-the-art infrastructure, including advanced laboratories and computing resources, fostering experiential learning and research.

Key facilities include a VLSI Lab equipped with Cadence tools (30-user license), an IoT Lab for system integration and real-time applications, and an NI LabVIEW Lab for virtual instrumentation and automation. These labs support hands-on learning, project development, and innovation. The department boasts a team of highly qualified faculty with multidisciplinary expertise and a strong research orientation. A well-stocked collection of textbooks and reference materials further supports student learning and academic excellence. Through its blend of rigorous academics, practical exposure, and industry-aligned training, the department aims to produce technically competent, innovative, and globally competitive engineers.

Vision

To develop highly skilled and globally competent professionals in the field of Electronics and Communication Engineering to meet industrial and social requirements with ethical responsibility.

Mission

- To provide State-of-art technical education in Electronics and Communication at undergraduate and post-graduate levels, to meet the needs of the profession and society and achieve excellence in teaching-learning and research.

- To develop talented and committed human resource, by providing an opportunity for innovation, creativity and entrepreneurial leadership with high standards of professional ethics, transparency and accountability.

- To function collaboratively with technical Institutes/Universities/Industries, offer opportunities cfor interaction among faculty-students and promote networking with alumni, industries and other stake-holders.

Staff Achievements

- Dr. Prathibha M K appointed as Board of Examiner, Department of ECE, VTU Belagavi for AY 2024–25.

- Dr. Bhagyashree S R received the International Outstanding Academy Award in the field of Biomedical Embedded Systems at IISTAR Congress 2024, presented by the Hon'ble Education Minister of Tamil Nadu (20/10/2024).

- Ms. Anupama Shetter received a research incentive of ₹10,000 for authoring and publishing a book.

- Ms. Anupama Shetter, Mrs. Keerthi A Kumbar, Dr. Prakash Kuravati and Mrs. Lokeshwari H.S have published a text book titled "Artificail Intelligence and Machine Learning"

- ATAL Advanced FDP on "Next-Gen System—On-Chip Design for Advanced Semiconductor Solutions," RV College of Engineering, Bengaluru (12–24 July 2024) – Attended by Mrs. Swetha K T and Ms. Mythri R.

- Workshop on AICTE Activity Points, Shree Krishna Institute of Technology (23 Nov 2024) – Attended by Mr. Chandra Shekar P.

- STTP on "Application of Deep Learning in Multidisciplinary Area," NITK Surathkal (1–5 July 2024) – Attended by Dr. Shalini Hanok.

- FDP on VTU Internship Program, Rooman Technologies & VTU Mysuru (13–14 Sept 2024) – Attended by Mr. Chandra Shekar P.

- Workshop on "EM to RF Evolution: State of the Art 6G Systems" MSRIT, Bengaluru (24–28 June 2024) – Attended by Mrs. Keerthi A Kumbar.

- Export Management System Training, in association with GOK Mysuru (24–29 June 2024) – Attended by Mr. Girish M.

- Hands-on Workshop on Medical Imaging, IEEE-EMBS & GAT, Bengaluru (22 June 2024) – Attended by Ms. Anupama Shetter and Mrs. Juslin F.
- Dr. PRATHIBHA M K - "Accreditation and Outcome Based Learning (Aug-Oct 2024; 8 weeks,) – Elite Badge

- Dr. Veeraprathap V – "Psychology of Everyday" (Aug–Sept 2024)
- Mrs. Swetha K T – "An Introduction to Coding Theory" (8 weeks, July–Sept 2024), "Basic Course on Electric and Magnetic Circuits" (12 weeks, July–Oct 2024) and "NBA Accreditation and Teaching and Learning in Engineering - NATE" (12 weeks, Feb 2025) – Elite Badge

- Ms. Mythri R – "The Joy of Computing Using Python" (12 weeks, July–Oct 2024)

- Mr. Chandra Shekar P – "AI/ML for Geodata Analysis," conducted by ISRO & Indian Institute of Remote Sensing (19–23 Aug 2024)

Research Publications

- Dr. Bhagyashree. S. R. and Garg, Sheetal published a paper "Improving Efficiency of Spinal Cord Image Segmentation Using Transfer Learning Inspired Mask Region-Based Augmented Convolutional Neural Network" in International Conference on Data Analytics & Management. Singapore: Springer Nature Singapore, Jan 2024, Lecture Notes in Networks and Systems, volume 785, 245-262 on 14th Jan 2024
  https://link.springer.com/chapter/10.1007/978-981-99-6544-1_19,

- Bhagyashree Raghavan. and Garg, Sheetal published a paper "Comparison of machine learning algorithms for the classification of spinal cord tumour" Irish Journal of Medical Science (1971-) (2023): 1-5. July 2024, Comparison of machine learning algorithms for the classification of spinal cord tumor | Irish Journal of Medical Science (1971 -), Volume 193, Pg 571-575, 2024 (Scopus Indexed, Q3 Rank, H index -38), IF 2.06

- Dr. M. K. Prathibha – Transmutation of Conventional Fuel Based Two-Wheeler Vehicles into Electric Vehicles - Journal of Mines, Metals and Fuels (Scopus Indexed) – Journal of Mines, Metals and Fuels, 72(11): 1179-1185; 2024. DOI: 10.18311/jmmf/2024/45180

- Mr. Chandra Shekar P presented Revolutionizing Multiplication: Implementing Vedic Sutra Principles in Multiplier Design at IACIS 2024 (Navkis College, Hassan) and Enhancing Glaucoma Detection through Deep Learning Algorithms at ICRASET 2024 (Adichunchanagiri University) – IEEE Digital Explore

- Mrs. Swetha K T – Paper presented paper “Optimized Audio Classification with Convolutional Neural Network Ensembles” at 2024 International Conference on Recent Advances in Science and Engineering Technology (ICRASET), B G Nagara, Mandya– IEEE Digital Explore

- Ms. Anupama Shetter – Presented paper “Musical Instrument Classification Using Deep Learning CNN Models” at ICIICS 2024, Sharnbasva University – IEEE Digital Explore

- Dr. M. K. Prathibha has published a paper on “Advanced Footstep Power Generation System”, International Journal of Innovative Research in Computer and Communication Engineering, Volume 13, Issue 12, DECEMBER 2024.

- Dr. M. K. Prathibha has published a paper on “Smart Watch for Health Monitoring System”, in International Journal of Innovative Research in Science, Engineering and Technology, Volume 13, Issue 12, DECEMBER 2024.

IEEE Events and Activities

- Logo Competition – 30 July 2024
- Technical Talk & Membership Drive on "Disruption of Cyber World" by Dr. Ravindra Kulkarni – 19 Sept 2024
- IEEE Day & Technical Talk by Ms. Saudmini Dutt

Workshops & Technical Events

- Code - Connect: Zonal-level technical event for diploma students (12–14 Dec 2024)
- Tech Talk: "Exploring the Tech Trio: AR, VR & AI" by Dr. Thotreingam Kasar (5 Nov 2024)
- Sustainability Awareness Program, aligned with AICTE points (8–9 Oct 2024) – Conducted by Ms. Seemanthini C

Patents Published:

1. **"A METHOD FOR DETECTING AND CLASSIFYING SPINAL CORD TUMORS USING NEURAL NETWORKS"** (App. No: 202411057919)
   Inventors: Dr. Bhagyashree S. R. and Sheetal Garg Filed: 31 July 2024 | Published: 16 August 2024
2. **"SYSTEM AND METHOD FOR IMPROVED PASSENGER EXPERIENCE AT VEHICLE STANDS"** (App. No: 202341089144)
   Inventors: Dr. Bhagyashree S. R, Shashidhar R, Suresh S, Chethana U, Keerthana N Published: 16 January 2024
3. **"A NOVEL DEEP LEARNING BASED AUTOMATED CYBERSECURITY SYSTEM AND METHOD"** (App. No: 202441024310A) Inventors: Anupama Shetter, Raghavendra L, Swapna H, Kiran B and Dr. Sathish K.R Published: 05 April 2024

Patents Granted:

1. **"A HANDHELD VISITOR GUIDANCE DEVICE, A SYSTEM AND A METHOD"** (App. No: 202241007931) Inventors: Dr. Bhagyashree S. R, Pooja R, Sheethal N, Sukrutha A Jain, Swathi B S Published: 25April 2024
2. **"A SMART FARMING MANAGEMENT SYSTEM AND METHOD"** (App. No:202141056171, Patent No:542900) Inventors: Guruprasad KN, Rakshitha S, Sahana N, Supritha A.S, Asma Rahamani Published: 25June 2024
3. **"ENERGY EFFICIENT ROBOTIC SANITIZING DEVICE"** (App. No:202141045359) Inventors: Pradeep Kumar Y, Mohammed Moin, Kripa Goyal, Rumana A, Ranjan R Published: 13/05/2024

Funded projects:

- Darshan PM, Abhishek KM and Kiran Gowda of 8thsem students project guided by Ms. Anupama Shetter and Mr. Girish M have got sanctioned amount of Rs.4000 by Karnataka State Council for Science and Technology (KSCST).
- Yashwant CN, Arun N, Shashank RP, Tejaswini D, Srinath D Pol and Sanjan BM of 6thsem students project guided by Ms. Anupama Shetter have got sanctioned amount of Rs.60000 by K-Tech NAIN

Toppers:

Semester	Name of the Student	USN	SGPA
7th	TANUSHREE T R	4AD21EC088	9.79
5th	P D DRUTHI	4AD22EC069	9.23
3rd	SNEHA M	4AD23EC094	9.40

Program Outcomes

- **PO1: Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- **PO2: 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.
- **PO3: 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.
- **PO4: 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.
- **PO5: 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.
- **PO6: 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.
- **PO7: 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.
- **PO8: Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **PO9: Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **PO10: 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.
- **PO11: 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.
- **PO12: 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.

Program Specific Outcomes

PSO1: To have the capability to understand and adopt the technological advancements with the usage of modern tool to analyze and design embedded system or processes for variety of applications.

PSO2: To work effectively in a group as an independent visionary, team member and leader having the ability to understand the requirement and develop feasible solutions to emerge as potential core or electronic engineer

Program Educational Objectives

PEO1: To produce graduates to excel in the profession, higher education and pursue research exercises in Electronics and Communication Engineering.

PEO2: To create technically able alumni with the capacity to examine, plan, to create and execute Electronics and Communication frameworks thereby involving in deep routed learning.

ATME®

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