ATME®
College of Engineering

ELECTRONICS & COMMUNICATION ENGINEERING

ElectroVerse

Department Magazine 2023

2022-23

CONTENTS

MESSAGE FROM PRINCIPAL

It gives me great joy to see the Department of Electronics and Communication Engineering bring out the department magazine for the academic year 2022–23. A department magazine is not just a collection of articles and pictures, but a reflection of the creativity, innovation, and teamwork that happens throughout the year.

This magazine showcases the achievements of students and faculty, their participation in technical and cultural activities, project work, and more. It is a platform where students express their talents not only in academics but also in writing, design, and critical thinking.

The world of electronics and communication is constantly evolving. From AI and IoT to 5G and beyond, our students have a vital role to play in shaping the future. It is heartening to see that the department is creating an environment that supports learning, research, and holistic growth.

I congratulate the Head of the Department, faculty members, editorial team, and all students for their contributions. I encourage everyone to continue participating in such creative and academic efforts. Let this magazine be a motivation for all of us to strive harder and grow together.

Best wishes to the ECE team for continued success in all future endeavors.

Dr. L Basavaraj
Principal,
ATME College of Engineering

MESSAGE FROM HOD

"I am very pleased to present the 2022–23 edition of our department magazine. The ECE department has always focused on not just academic learning, but also on building skills, encouraging innovation, and supporting students in expressing their talents. This magazine reflects that spirit.

The efforts and enthusiasm shown by our students and faculty in bringing out this magazine are truly commendable. It features a wide range of content—from technical articles and project highlights to achievements, events, and creative writings. It is a good reminder of how much we have grown together over the past year.

Today's engineering students need both knowledge and creativity to succeed. The magazine gives them a chance to explore topics beyond textbooks and to share their ideas with a larger audience. I am proud to see how our students are becoming confident, responsible, and skilled individuals.

I thank the editorial team, faculty coordinators, and all contributors who made this magazine possible. Your hard work and dedication are appreciated.

Let us continue to work together to make the department stronger, more innovative, and more student-focused. I wish all our students a bright and successful future.

Warm regards,
Dr. Prathiba M K
Head of the Department, ECE
ATME College of Engineering

MESSAGE FROM THE EDITOR

Dear Readers,

It is my pleasure to present to you the ECE Department Magazine for the academic year 2022–23. This magazine is the result of months of effort, collaboration, and creativity from our dedicated team of students and faculty.

Through this magazine, we aim to highlight the various academic and co-curricular activities that took place in the department over the past year. From student achievements and workshops to project work and cultural events, this edition covers the vibrant life of our department. We have also included articles, poems, and creative pieces that showcase the talents and thoughts of our students.

As the editor, I am proud of how the magazine has come together. It reflects not only the growth of individuals but also the unity and spirit of the department. I believe that such platforms are essential for students to think beyond academics, express themselves freely, and build confidence.

I thank our HoD, faculty members, and the editorial team for their constant support. I am also grateful to all the students who contributed content and helped make this magazine meaningful and enjoyable.

We hope you enjoy reading it and feel inspired to take part in future editions. Your feedback and suggestions are always welcome!

Sincerely,
Mr. Chandra Shekar P
Editor – Department Magazine
ECE, ATMECE

EDITORIAL COMMITTEE

Chief Editor

Dr. Prathibha M K
HoD

Editor

Mr. Chandra Shekar P
Assistant Professor

Member

Mrs. Keerthi A Kumbar
Assistant Professor

Student Members

Mr. Karthik P U
Mr. Tejas
Ms. Keerthana
Ms. Thanushree

ABOUT THE DEPARTMENT

The Department of Electronics and Communication Engineering (ECE) at ATME College of Engineering was established with the aim of producing skilled, knowledgeable, and industry-ready engineers in the rapidly evolving field of electronics and communication.

The department offers a **Bachelor of Engineering (B.E.) in Electronics and Communication**, with a strong emphasis on core subjects like analog and digital electronics, signal processing, communication systems, VLSI design, embedded systems, and microcontrollers. The curriculum is designed to blend theoretical foundations with practical learning through well-equipped laboratories and hands-on projects.

Our department is supported by a team of highly qualified and experienced faculty members who are dedicated to mentoring students, encouraging innovation, and guiding research activities. We promote a learning environment that fosters creativity, problem-solving, and teamwork.

In addition to academics, the department regularly conducts technical talks, workshops, industrial visits, and student development programs to keep learners updated with current trends and industry needs. Students are also encouraged to participate in hackathons, internships, and mini-projects.

With a strong focus on academic excellence, practical skills, and ethical values, the ECE department at ATME strives to prepare its students for successful careers in industries, research, and entrepreneurship.

VISION of the Department:

- 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 of the Department:

- 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 for interaction among faculty-students and promote networking with alumni, industries and other stake-holders.

STAFF ACHIEVEMENTS

- **Dr. Prakash Kuravatti** awarded for publishing the text book entitled "SIGNALS AND SYSTEMS".
- **Dr. Shalini Hanok** awarded Ph.D for the title "Decision Fusion Techniques for enhanced privacy and security for robust online social network" from JSS S & T University.
- **Mr. Chandra Shekar P**
  - Delivered a talk on the topic "5G Technology" and "Current Trends of Technology" at On-Air AKASHVANI, Mysore
  - Awarded for exceptional contribution as a Pre-Screening Evaluator in Smart India Hackathon – 2022
  - Published a paper on "Machine Learning Algorithms for Identifying Fake Currencies" in SN Computer Science (SCOPUS) volume 4, Article number: 368 during April 2023.
- **Mrs. Pavithra A C** – awarded Ph.D for the title "Optimal feedback controllers for the performance enhancement of aircrafts roll yaw and pitch control" from VTU, Belagavi.
- The following faculties have successfully completed National Initiative for Technical Teachers Training (NITTT) courses. It is a Scheme initiated by AICTE and MoE to provide training for teachers working in AICTE approved Technical Institutions. An Inductee Teacher has to undergo online training of eight modules in the first phase of training.
  - Mr. Guruprasad N
  - Mr. Pradeep Kumar Y
  - Mrs. Keerthi A Kumbar
  - Mrs. Juslin
  - Ms. Anupama Shetter

LIST OF FDPS/STTP/WORKSHOPS ATTENDED

Sl. No	Name of the Faculty	Details of Courses attended (Title of the Course, Organizer Name and Place)	From Date	To Date	Duration
1	Mr. Chandra Shekar P	Anudaksh Training cum Internship Program on "Machine Learning and Edge AI"	22/07/2022	24/07/2022	2 days
2		Webinar on "Image Classification using Edge Impulse-An application of IoT and Machine Learning"	03/07/2022	-	1 day

3	Ms. Anupama Shetter	FDP on “Machine Learning for data science using Python”	16/07/2022	30/07/2022	15 days
4	Mrs. Juslin F				
5	Mr. Girish M	FDP on “Latest Trends in VLSI Device, Circuits and Tools”	19/09/2022	24/09/2022	6 days
6	Mr. Manjunath				
7	Mr. Guruprasad K N	FDP on “Recent Trends in Deep Learning”	01/07/2022	07/07/2022	5 Days
8	Mr. Pradeep Kumar Y				
9	Ms. Anupama Shetter				
10	Mrs. Juslin F				
11	Mrs. Keerthi Kumbar				
12	Mrs. Keerthi A Kumbar	FDP on “EWB Training on Data Analytics Operations” in Association with Xponential Orbit Shifters, Bangalore held at the Dept. of EEE, ATMECE, Mysuru (offline)	10-03-2023	-	1 day
13	Mrs. Chethana K S				
14	Mrs. Nandini G S				
15	Ms. Navya N				
16	Mr. Chandra Shekar P	FDP-SI on “Universal Human Values – 2023” by AICTE Incorporating Universal Human Values in Education (online)	20-02-2023	24-02-2023	5 Days
17	Mrs. Nandini G S				
18	Dr. Shalini Hanok	FDP on “Research Proposal Writing”, by Ministry of Education. Gov. of India ICMR-NIN facility, Hyderabad			
19	Mrs. Keerthi A Kumbar	Open Day @ IISC Bengaluru (Offline)	04-03-2023	-	1 day
20	Ms. Anupama Shetter				
21	Mr. Pradeep Kumar Y				
22	Mr. Guruprasad K N				
23	Mr. Abhilash G.	Short term course on hands on training in “VLSI and Communication Modelling” at Dr. B R Ambedkar National Institute of Technology, Jalandhar, Panjab (online)	06 -03-2023	10-03-2023	5 days
24	Mrs. Chethana K S				
25	Mr. Chandra Shekar P	ATAL FDP on "Analog and Digital	20-02-2023	25-02-2023	6 days

		Design Flow for VLSI Chip Application" at GM Institute of Technology, Davangere.			(Online)
26			27-02-2023	03-03-2023	5 days (Offline)
27		FDP-SI UHV with AICTE “Incorporating Universal Human Values in Education” (Online)	20/02/2023	24/02/2023	5Days
28	Mrs. Chethana K S	FDP on “VLSI & Comm Modeling” organized by Dept. of ECE, Dr. B R Ambedkar, NIT, Jalandar	06/03/2023	10/03/2023	5Days
29	Mr. Abhilash G				
30	Ms. Anupama Shetter	FDP on “Medical Device Design”at Department of Design, Indian Institute of Technology, Roorkee	12/05/2023	23/05/2023	12 days
31	Mr. Pradeep Kumar Y	IEEE Third International Conference on “Technology, Engineering, Management for Societal impact using Marketing, Entrepreneurship and Talent” organized by VVIET, Mysuru	10-02-2023	11-02-2023	2 days
32	Mr. Guruprasad K N				
33	Mr. Chandrashekar P				
34	Mr. Manjunath K				
35	Mr. Girish M				
36	Mr. Chandra Shekar P	FDP on “VLSI to System Design: Silicon to End Application Approach”	31-07-2023	04-08-2023	5 days
37	Mrs. Chethana K S				
38	Mr. Abhinandan V				

DEPARTMENT ACTIVITIES

The Department of Electronics and Communication Engineering organized the following academic and co-curricular activities to enhance student and faculty knowledge across emerging and core domains:

- NAAC Awareness Program for Students – Conducted from 11th to 12th October 2022
- Technical Talk on Semiconductor Devices – Held on 25th November 2022
- Technical Talk on "Advances in VLSI" – Organized on 8th December 2022
- Technical Talk on "Advances in VLSI" for 5th Semester Students – Conducted on 5th July 2022 at ATMECE, Mysuru
- Technical Talk on "Demystifying Role of AI in Diagnostic Imaging" – Conducted for 4th semester students on 26th August 2023 at ATMECE, Mysuru.
- Technical Talk on "Semiconductor Design" – Organized for 4th semester students on 10th June 2023 at ATMECE, Mysuru.
- Zonal Level Project Exhibition & Competition "ProjectXpo-2K23" – Held on 22ndMay 2023 in association with Alumni Association & ISF for ECE/EEE students at ATMECE, Mysuru.
- Technical Talk on Cyber Security – Conducted for 6th and 8th semester students on 19th April 2023.
- 5-Day FDP on "5G/6G Technologies for Wireless Systems" – Organized for faculty, Ph.D. scholars, and PG students from 27th to 31st March 2023 at ATMECE, Mysuru.
- Workshop on PCB Assembly and Soldering Process using EDA Tools – Conducted from 15th to 17th February 2023.
- The department has organized Industrial Visit to U R Rao Satellite Centre (URSC), Bengaluru (Formerly known as ISRO Satellite Centre (ISAC) for 7thsemester students on 20th September 2023. Dr. Prakash Kuravatti, Asso. Professor, Mr. Pradeep Kumar Y, Asst. Professor, Mrs. Keerthi A Kumbar, Asst. Professor, Ms. Anupama Shetter, Asst. Professor, and Dept. of ECE coordinated the students. The students were allowed to visit the space exhibition comprising of a display of satellite systems, scaled models of satellites and allied information on satellite technologies.

STUDENTS ACTIVITIES/ACHIEVEMENTS

- Mr. Sheetal K Athreya from the 2018–2022 batch secured the 8th rank in VTU, marking a significant academic achievement.
- 15 students of 3rdsemester attended Bengaluru Tech Summit- 2022 organized byState's Department of Electronics, IT, Biotechnology and Science & Technology and co-hosted by the Software Technology Park of India (STPI) at Bengaluru on 17th November 2022.
- Tejash Kumar N, Chaitra B, Bhavanashree N, and Harshitha R. M. represented the institution at India's leading IoT exhibition held at KTPO, Whitefield, Bengaluru, from 23rd to 25th November 2023.
- Manosh Chandu, Kavyashree N and Jenisha OshalD'souza of 3rdsemester participated in the UNLEASH India 2022- International event organized at INFOSYS, Mysuru from 3rd to 10th December 2022.
- Manoj Kumar M, Vyshak Gowda M R, Darshan S Y, Chandan M M have won 2nd Prize in the 7th National level project competition "IEEE Project EXPO–2023" for the project work entitled "Ambulance rescuing system using RF Technology" under the Guidance of Dr. Prakash Kuravatti at GSSSIETW, Mysuru on 5th May 2023.
- Vishveshwara Bhargav S V, Arun G Raj, Shashank Gowda R, Tharun Gowda A V, Tejas N and Yashwanth C N of 4thsemester participated in the 8-day workshop on "RTL Front end Designing using Verilog" organized at VVCE, Mysuru in association with IEEE CAS Bangalore Chapter from 2nd to 9th September 2023.

GRANTS RECEIVED FOR STUDENT PROJECTS

Sl. No	Name of the Project	Name of the students	Name of the Guide	Amount Sanctioned in Rs.	Name of the Funding Agency
1	Detection and Surveillance of UAV based on RF and Radar Technology	Harsha M Hiba Mahin Rajath Narayan Hegde Rohith Kumar K	Mrs. Keerthi Kumbar & Ms. Anupama Shetter	6000/-	Karnataka State Council for Science and Technology (KSCST)
2	Solar panel Cleaning Robot	Nijaguna Swamy Mahadevaprasad G S Prajwal C R V Chandan	Mr. Guruprasad & Mrs, Harshitha N	6000/-	Karnataka State Council for Science and Technology (KSCST)

PLACEMENT DETAILS

In the Department of Electronics and Communication Engineering, students secured placements in reputed companies with salary packages ranging from ₹2.4 LPA to ₹7.5 LPA.

Our esteemed Recruiters

TOPPERS LIST

Semester	Name of the Student	USN	SGPA	PHOTO
3	ANANYA S NAYAK	4AD21EC005	9.28	
	VARUN G RAJ	4AD21EC095	9.00	
5	SUMANTH M R	4AD20EC068	9.28	
	SHASHANTH R	4AD20EC064	9.28	

6	SHASHANTH R	4AD20EC064	9.38	
6	Faseeha Fathima	4AD20EC020	9.17	
7	PRATHEEK P S	4AD19EC057	9.55	
	PRIYANKA BAI	4AD19EC059	9.55	
8	PRATHEEK P S	4AD19EC057	9.29	
	SUSHMITHA M S	4AD19EC080	9.15	

Netcracker Technology: The new Google Cloud partner in genAI

Netcracker Technology, a wholly owned subsidiary of NEC Corporation, is a provider of business support systems, operations support systems and software-defined networking and network functions virtualisation solutions.

The company also offers professional services, as well as managed services and has recently undergone plenty of partnerships with large tech companies, including Microsoft and Google. In a world of rapid digitalisation, Netcracker aims to adapt quickly and diversify business to deliver the outcomes that their customers expect.

With Netcracker now working with Google Cloud to advance the use of generative AI technology within the telecom industry, AI Magazine explores the company's successes alongside its rapid growth. Independent growth has resulted in large-scale success

Netcracker Technology was co-founded in 1993 and is chaired by CEO Andrew Feinberg and VP Bonnie Ward. In 2008, after 15 years of independent growth, the company was acquired by NEC Corporation. Netcracker then became a wholly owned subsidiary of NEC.

Its innovative solutions, including its flagship cloud-native Netcracker Digital Platform, value-driven services and unbroken delivery track record helps service providers achieve their digital transformation goals

WIth these goals, in 2010, Netcracker initiated a large-scale expansion which saw NEC consolidate its Telecom Operations and Management Solutions (TOMS) software and services business.

The company has also conducted important work for the industry with Microsoft, having expanded its partnership in September 2023 to further unlock the power of generative AI. This particular telco solution is designed to leverage the power of OpenAI's ChatGPT through Azure OpenAI Service to create high-value use cases by harnessing valuable telecom data and knowledge.

Through its extensive expertise in telecom IT, Netcracker's solution works to enrich ChatGPT with real-time telecom data, context and knowledge from the operators' business support systems and operational support system (BSS/OSS) and data analytics platforms to increase productivity and provide a superior customer experience in all areas of the telecom business.

Ultimately, Netcracker offers a set of market-ready solutions that work to dramatically improve call centre efficiencies, increase the productivity of business and operational employees and to drive faster sales conversions and make quicker recommendations.

Securing generative AI access with Google Cloud

Generative AI has great potential to expand many areas of the technology sector, including the telecom business, by delivering high-quality customer care and improving business productivity with higher levels of automation. In order to meet these goals, however, generative AI models need to be secure, given that they are accessing sensitive data in key industries.

Netcracker Technology aims to offer this via its partnership with Google Cloud. By combining the Netcracker GenAI Telco Solution with Google Cloud's Vertex AI, the goal is that communications service providers can harness their valuable telecom data and knowledge in a secure and controlled way to bring benefits to their customers, partners and their own businesses.

Leveraging its skills and management in the telecom BSS/OSS domain, alongside Google Cloud's skills in cloud, enterprise AI and generative AI technology, Netcracker is hoping to offer high-value use cases that leverage real-time telecom data in a secure manner.

By enhancing generative AI models with precise telco data and instructions, and fine tuning these models, communications service providers will benefit from quality responses and resolutions of their generative AI use cases.

Kusuma
***3rd* Year**

ಮೈಸೂರುದಸರಾ

ನೋಡುಬಾರಾ ನಮ್ಮ ನಾಡ ಹಬ್ಬ ದಸರಾ

ದೇವಲೋಕದಂತಿದೆ ನಮ್ಮ ಮೈಸೂರು ನಗರ

ಹೆಚ್ಚುಂತಿದೆ ರೋಮಾಂಚನ ನೋಡುಗರ ಹೃದಯದಲಿ

ಸ್ವರ್ಗವು ಇಲ್ಲಿದೆ ನೋಡಿ, ಬೇರೆ ಎಲ್ಲಿ ಹುಡುಕುವಿರಿ

ಅರಮನೆಯು ಕಂಗೊಲಿಸುತಿದೆ ದೀಪದ ಅಲಂಕಾರದಲಿ

ಚಾಮುಂಡಾಂಬೆ ಶೋಭಿಸುತಿರುವಳು ಚಿನ್ನದ ಅಂಬಾರಿಯಲಿ

ನೋಡಲೇಬೇಕು ಈ ಸೊಬಗನು ನಿಮ್ಮ ಜೀವನದಲಿ

ಸಾರ್ಥಕವಾಗುವುದು ನಿಮ್ಮ ಜನ್ಮ ಈ ಬಾಳಲಿ

ಒಡೆಯರು ತಂದುಕೊಟ್ಟ ಸಂಪ್ರದಾಯ ಈ ನಮ್ಮ ದಸರಾ

ದೇಶ ವಿದೇಶದಲ್ಲೂ ಹರಡಿದೆ ನಮ್ಮ ಹಬ್ಬದ ವೈಭವ

ಎಲ್ಲರ ಮನದಲ್ಲೂ ಇರಲಿ ದೇವಿಯ ಕೃಪಾಕಟಾಕ್ಷ

ನಮ್ಮನೆಲ್ಲಾ ಕಾಪಾಡಲಿ

Spoorthi
2nd Year

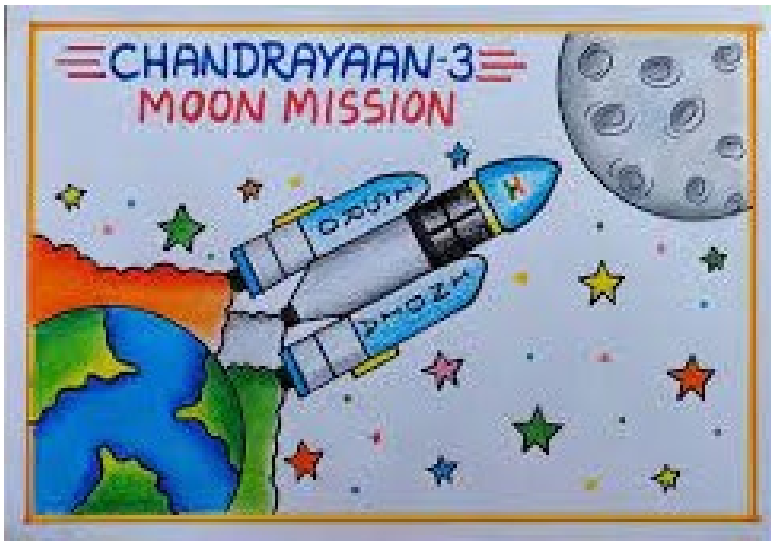
PHOTOGRAPHY

Chethan Kumar M C
3rd Year

Chethan Kumar M C
3rd Year

Chethan Kumar M C
3rd Year

DRAWING AND PENCIL SKETCH



Aishwarya
3rd Year

Keerthana
3rd Year

Shiva Kumar
3rd Year

Tanvi
4th Year

YASHWANTH
4th Year

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 EDUCATIONAL OBJECTIVES

- **PEO1:** 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

- **PEO2:** 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 SPECIFIC OUTCOME

- **PSO1:** To produce graduates to excel in the profession, higher education and pursue research exercises in Electronics and Communication Engineering.

- **PSO2:** 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®

College of Engineering

ATME COLLEGE OF ENGINEERING

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