ATME College of Engineering

Electronics & Communication Engineering

Department Newsletter 2022-23

Vol. No 2, July 2023

Letter from the HoD

Dear Sir or Madam,

My name is Dr. Basavaraj L, and I am a Professor and Heading a Electronics and Communication Engineering Branch at our college. I am writing this letter to share a few words about what I really think about our department magazine. But, before anything else, I would like to thank you for offering us an opportunity to share our opinions about this magazine.

I feel privileged in presenting the volume of our department magazine. I would like to place my sincere and heartfelt thanks to all those who have contributed to make this effort a success. My special thanks to the Management, for their guidance which enabled us to bring out this volume.
The magazine has a variety of articles endowed with different subjects contributed by the students of our department and their participation in various activities round the year.
I extend my gratitude to the entire team of the Editorial Board for their constant exertion, revision and support in bringing out the magazine in the present form.

Sincerely,

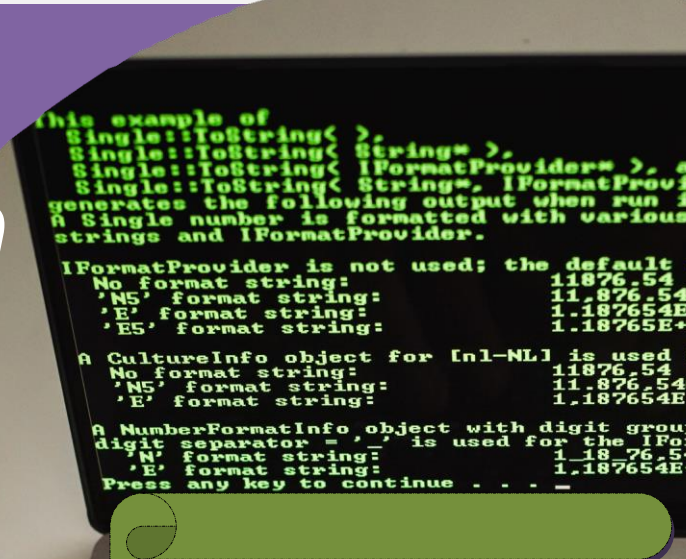
Dr. Basavaraj L
Editor-In-Chief

Letter from Editorial

The Creative minds of the Electronics and communication department of ATME College of Engineering have come together to present what they have always wanted to and we congratulate every student who has given their contribution.
They can't be appreciated enough and we can't explain how difficult it was to compile all their accomplishments into a single magazine. We take pride in showing you how our very own ECE ATMEians have imaginations that spread across the horizons.
We would like to thank the Management and all the staffs who have supported the 'Department Magazine' initiative and for having trust in the Editorial board by giving us full freedom to choose the content and design for our magazine. The magazine should serve as a pillar of motivation for every other student who is yet to emerge as an Achiever and carry the legacy of the magazine. The students who follow in the next academic years, we advise you to do the same. Go Mad, B.E. productive but at the same time B.E. creative! (pun intended)

Sincerely,

Prof. Chandra Shekar P
Assistant Professor



EDITORIAL COMMITTEE

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Professor & HoD

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Assistant Professor

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Mrs. Keerthi A Kumbar
Assistant Professor

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Mr. Tejas

Ms. Keerthana

Ms. Thanushree

About the Department

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 postgraduate levels, to meet the needs of the profession and society, and achieve excellence in teaching-learning and research.
- To develop talented and committed human resources, 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 stakeholders.

The Department of Electronics and Communication Engineering (ECE) was established in the year 2010 with an intake of 60 and was enhanced to 120 in the year 2012. It offers an Undergraduate program (4 years) and Doctoral programs.

Doctoral Programs (Ph.D.) encompassing broad areas of Wireless Communication, Signal/Image Processing, VLSI & Embedded Systems, Biomedical Engineering, and Advanced Control Systems. Etc. The ECE program is accredited by the National Board of Accreditation (NBA). ECE Dept. has well-equipped state-of-art laboratories and ample resources in computing. The Department has a full-fledged VLSI Lab. It is furnished with a Cadence tool with thirty user licenses. The department is imparting Cadence Training to students in the VLSI lab and also provides additional lab facilities such as IoT Lab and NI LabView where students will be trained and carry out mini and major projects.

Department has well-qualified and experienced teaching faculty and technical staff. The faculty members of the ECE department are versatile in many diversified fields. They have good research potential and are committed teachers. Department of ECE has a huge collection of Textbooks, Reference Books by Various authors, with different titles and volumes. Department conducts the inter-college technical fest URJA every year, which provides a platform for students to develop leadership and organizing skills. The department has been to impart quality technical education to the students. To make the students technically aware of the advancements in technology around the world, the department provides additional training sessions, workshops, hands-on, webinars, Industrial Visits, Internships, and other events. Department feathered with 13 Patents; 1 Copyright & 3 Text Books published.

Staff Details

Sl. No.	Name	Designation	Qualification
		Teaching	
1	Dr. Basavaraj L	Professor & Principal	Ph. D
2	Dr. Mahesh P K	Professor & HoD	Ph. D
3	Dr. Bhagyashree S R	Professor & Dean (Research)	Ph. D
4	Dr. Yathisha L	Associate Professor & Dean (Student Affairs)	Ph. D
5	Dr. Prakash Kuravtti	Associate Professor	Ph. D
6	Dr. Prathiba M K	Associate Professor	Ph. D
7	Dr. Pavithra A C	Assistant Professor	Ph. D
8	Mr. Abhilash G	Assistant Professor	M. Tech
9	Mr. Guruprasad K N	Assistant Professor	M. Tech
10	Mr. Pradeep Kumar Y	Assistant Professor	M. Tech
11	Mr. Chandra Shekar P	Assistant Professor	M. Tech
12	Mrs. Chethana K S	Assistant Professor	M. Tech
13	Mrs. Keerthi A Kumbar	Assistant Professor	M. Tech
14	Mr. Manjunath K	Assistant Professor	M. Tech
15	Mr. Girish M	Assistant Professor	M. Tech
16	Dr. Shalini Hanok	Assistant Professor	Ph. D
17	Mrs. Juslin F	Assistant Professor	M. Tech
18	Ms. Anupama Shetter	Assistant Professor	M. Tech
19	Ms. Navya N	Assistant Professor	M. Tech
		Non – Teaching	
1	Mr. Manjunath H R	Foreman	Dip. in ECE
2	Mr. Shreekanta Murthy	Instructor	Dip. in ECE
3	Mr. Somasundar	Instructor	B.E. in ECE
4	Mr. Jayaprakash Naryana	Instructor	Dip. in ECE
5	Mr. Abhinandan V	Instructor	Dip. in ECE
6	Mr. Yogesh	Lab. Assistant	SSLC
7	Mr. Sudhakar	Lab. Assistant	SSLC
8	Mr. Chandra Shekar K	Lab. Assistant	PUC

Staff Achievements

- Mr. Chandra Shekar P, Delivered a talk on the topic "5G Technology" and "Current Trends of Technology" at On-AIR AKASHVANI, Mysore on the topic "5G Technology" and "Current Trends of Technology".
- Dr. Pavithra A C awarded Ph. D for the title "Optimal feedback controllers for the performance enhancement of aircraft roll yaw and pitch control" from VTU.
- Chandra Shekar P published a paper on " Machine Learning Algorithms for Identifying Fake Currencies" in SN Computer Science (SCOPUS) volume 4, Article number: 368 (2023) on 29/April/2023.
- 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)	Starting Date	End Date	Duration
1	Mrs. Keerthi A Kumbar	1 Day FDP on "EWB Training on Data Analytics Operations" in Association with Xponential Orbit Shifters, Bangalore held at Dept. of EEE, ATMECE, Mysuru (offline)	10-03-2023	-	1 day
2	Mrs. Chethana K S				
3	Mrs. Nandini G S				
4	Ms. Navya N				
5	Mr. Chandra Shekar P	5-day FDP-SI on "Universal Human Values – 2023", by AICTE Incorporating Universal Human Values in Education (online)	20-02-2023	24-02-2023	5 Days
6	Mrs. Nandini G S				
7	Dr. Shalini Hanok	Research Proposal Writing, Indian Knowledge System (IKS), Ministry of Education. Gov. of India ICMR-NIN Animal facility, Hyderabad			

8	Mrs. Keerthi A Kumbar	Attended Open Day @ IISC Bengaluru (Offline)	04-03-2023	-	1 day
9	Ms. Anupama Shetter				
10	Mr. Pradeep Kumar Y				
11	Mr. Guruprasad K N				
12	Mr. Abhilash G.	5 days short term course on hands on training in "VLSI and Communication Modelling." Dr. B R Ambedkar National Institute of Technology, Jalandhar, Panjab (online)	06 -03-2023	10-03-2023	5 days
13	Mrs. Chethana K S				
14	Mr. Chandra Shekar P	AICTE Training And Learning (ATAL) Academy Blended/Hybrid FDP on "Analog and Digital Design Flow for VLSI Chip Application" at GM Institute of Technology, Davangere.	20-02-2023	25-02-2023	6 days (Online)
15			27-02-2023	03-03-2023	5 days (Offline)
16		5-day FDP-SI UHV Online - AICTE Incorporating Universal Human Values in Education (An AICTE Initiative)	20/02/2023	24/02/2023	5Days
17	Mrs. Chethana K S	VLSI & Comm Modeling organized by Dept. of ECE, Dr. B R Ambedkar, NIT, Jalandar	06/03/2023	10/03/2023	5Days
18	Mr. Abhilash G				
19	Ms. Anupama Shetter	Medical Device Design by Department of Design, Indian Institute of Technology, Roorkee	12/05/2023	23/05/2023	12 days
20	Mr. Pradeep Kumar Y	IEEE Third International Conference on "Technology, Engineering, Management for Societal impact using Marketing, Entrepreneurship and Talent" organized by Vidya Vikas Institute of Engineering & Technology, Mysuru	10-02-2023	11-02-2023	2 days
21	Mr. Guruprasad K N				
22	Mr. Chandrashekar P				
23	Mr. Manjunath K				
24	Mr. Girish M				
25	Mr. Chandra Shekar P	VLSI to System Design: Silicon to End Application Approach	31-07-2023	04-08-2023	5 days
26	Mrs. Chethana K S				
27	Mr. Abhinandan V				

Department Activities

- Department organized workshop on “PCB Assembly and Soldering process with simulation of circuits using EDA tools ” for all 3rd semester students from 15-02-2023 to 17-02-2023 at ATMECE, Mysuru.
- Department has organized a FDP on “5-Day FDP On " 5G/6G Technologies for Wireless Systems “ for the faculty members from ECE/EEE/CSE Dept., Ph. D. Scholars and PG Students from AICTE approved Technical Institutions from 27-03-2023 to 31-03-2023 at ATMECE, Mysuru.
- Department has organized one day zonal level Project Exhibition competition “ProjectXpo-2K23” in association with Alumni Association & ISF for ECE/EEE students on 22-05-2023 at ATMECE, Mysuru.
- Department has organized a technical talk on “Technical Talk on Semiconductor Design “ for 4th semester students on 10-06-2023 at ATMECE, Mysuru.
- Department has organized a technical talk on “Technical Talk on Demystifying Role of AI in Diagnostic Imaging. “ for 4th semester students on 26-08-2023 at ATMECE, Mysuru.
- Department has organized Industrial Visit to U R Rao Satellite Centre (URSC), Bengaluru (Formerly known as ISRO Satellite Centre (ISAC) for 7th semester students on 20-09-2023. **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 Achievements

GRANTS RECEIVED FOR STUDENTS PROJECTS

- Tejash kumar N, Chaitra B, Bhavana shree N and Harshitha R M participated in the INDIA's No. 1 IOT show held at KTPO, whitefield for 3 days from 23-11-2022 to 25-11-2023
- Manosh Chandu, Kavyashree N and Jenisha Oshal D'souza of 3rd semester participated in the UNLEASH India 2022- International event in INFOSYS from 3-12-2022 to 10-12-2022.
- Manoj Kumar M, Vyshak Gowda M R, Darshan S Y, Chandan M M participated in the 7th National level project competition " IEEE Project EXPO" – 2023" presented project work entitled Ambulance rescuing system using RF Technology" under the Guidance of Dr. Prakash Kuravatti and secured 2nd Prize at GSSSIETW, Mysuru on 05-05-2023.
- Vishveshwara Bhargav S, VArun G Raj, Shashank Gowda R, tharun Gowda A V, Tejas N and Yashwanth C N of 4th sem participated in the 8th days workshop on "RTL Front end Designing using Verilog" organized by VVCE, Mysuru in association with IEEE CAS Bangalore Chapter from 2-9-2023 to 9-9-2023.

Placement Details

In Electronics and Communication Engineering, 64 students go placed to various companies in the AY 2022-23 with package 2.4L – 7.5L. Below is the list of students placed for various companies.

SL.No.	NAME	USN	DOMAIN	DESIGNATION	COMPANY	PACKAGE OFFERED
1	SAHANA C	4AD19EC070	NON IT	BUSINESS DEVELOPMENT TRAINEE	INTELLIPAAT	7.5 LPA
2	HARSHITHA R M	4AD19EC025	NON IT	BUSINESS DEVELOPMENT TRAINEE	INTELLIPAAT	7.5 LPA
3	CHAITRA B	4AD19EC015	IT	TRAINEE SOFTWARE ENGINEER	ESYASOFT	1.8 LPA

4	R V CHANDAN	4AD19EC061	NON IT	ASSOCIATE TRAINER	FACE PREP	3.06 LPA
5	DUSHYANTH M P	4AD19EC021	NON IT	ASSOCIATE TRAINER	FACE PREP	3.06 LPA
6	PRIYANKA BAI J G	4AD19EC059	CORE	VLSI ENGINEER	DXCORR	4 LPA
7	TEJASH KUMAR N	4AD20EC412	NON IT	BUSINESS DEVELOPMENT EXECUTIVE	BYJUS	4 LPA
8	SAHANA C	4AD19EC070	NON IT	BUSINESS DEVELOPMENT EXECUTIVE	BYJUS	4 LPA
9	HEERA N	4AD19EC026	NON IT	BUSINESS DEVELOPMENT EXECUTIVE	BYJUS	4 LPA
10	HARSHITHA R M	4AD19EC025	NON IT	BUSINESS DEVELOPMENT EXECUTIVE	BYJUS	4 LPA
11	SHWETHA L	4AD19EC074	NON IT	BUSINESS DEVELOPMENT EXECUTIVE	BYJUS	4 LPA
12	CHANDAN KUMAR K	4AD20EC404	NON IT	BUSINESS DEVELOPMENT EXECUTIVE	BYJUS	4 LPA
13	SANJANA R	4AD19EC073	NON IT	SALES ENGINEER	TEKDYNAMICS PVT LTD	4 LPA
14	THRIPTHI B S	4AD19EC084	NON IT	SALES ENGINEER	TEKDYNAMICS PVT LTD	4 LPA
15	VAISHNAVI N	4AD19EC085	NON IT	SALES ENGINEER	TEKDYNAMICS PVT LTD	4 LPA

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	

Articles

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

ಮೈಸೂರು ದಸರಾ

ನೋಡು ಬಾರಾ ನಮ್ಮ ನಾಡ ಹಬ್ಬ ದಸರಾ

ದೇವಲೋಕದಂತಿದೆ ನಮ್ಮ ಮೈಸೂರು ನಗರ

ಹೆಚ್ಚು ತಿದೆ 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

Program Specific Outcome

Program Educational Objectives

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**: Identity, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using the 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 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.

Program Specific Outcome

- **PSO1:** To Comprehend the Fundamental ideas in Electronics and communication Engineering and Apply them to identify, formulate and effectively solve Societal engineering problems using latest tools and techniques.
- **PSO2:** To work effectively in a group as an independent visionary, team member and leader having the ability to understand the requirements and develop feasible solutions to emerge as potential entrepreneurs.

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