GALGOTIAS COLLEGE
OF ENGINEERING & TECHNOLOGY

"EC-Newsletter" is the yearly newsletter of the Department of ECE, Galgotias College of Engineering and Technology, Greater Noida highlighting the accomplishments of our students, faculty and staff. It mainly focuses on the major events organized, student and faculties research publications, achievements, campus placement, industrial interactions, industrial visits, higher studies details etc.
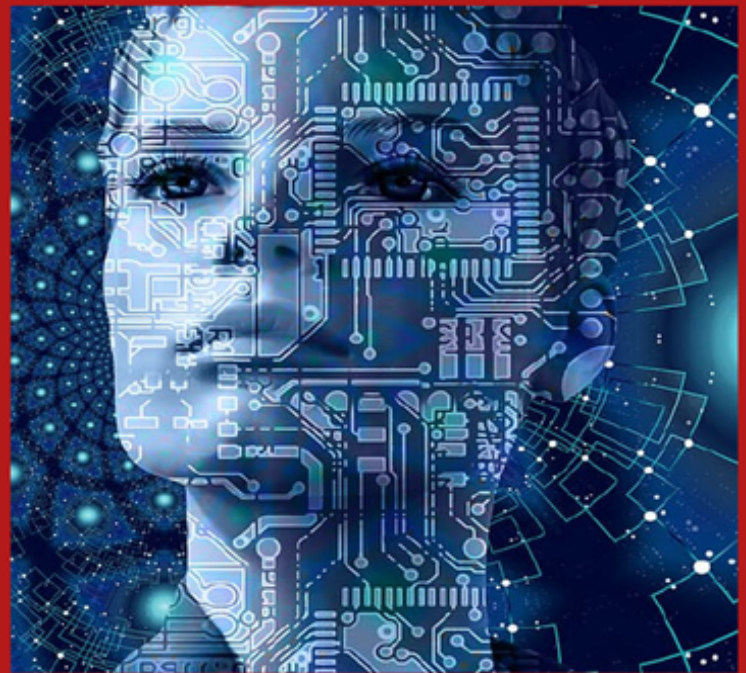
Department of
Electronics & Communication

Chief editor :　Dr. Swaminathan (Prof and Head ECE Dept.)
Faculty Editor :　Shivam Gupta
Student Editor :　Shiven Pandey

MESSAGE FROM HEAD OF THE DEPARTMENT (HOD)

It is my pleasure and honour to welcome you to the Department of Electronics and Communication Engineering of Galgotias College of Engineering and Technology.

Our department is committed to excellence in teaching, research, and innovation. With a focus on cutting-edge technologies, we aim to prepare our students to meet the challenges of the rapidly evolving field of Electronics and Communication. Our dedicated faculty members bring a wealth of knowledge and experience to the classroom and are actively involved in groundbreaking research that has a significant impact on our world. For our students, this department is your academic home, a place where you will acquire not only knowledge but also the skills, passion, and confidence needed to excel in your careers. We encourage you to actively engage in research projects, internships, and extracurricular activities that will enrich your educational journey.

As we embrace the digital age, the field of Electronics and Communication Engineering is at the forefront of transformative technologies like 5G, Internet of Things (IoT), artificial intelligence, and more. Our department is poised to lead in these areas, and we invite you to join us on this exciting journey. Please explore our website to learn more about our programs, research areas, and the incredible opportunities that await you here.

Thank you for choosing Galgotias College of Engineering and Technology and the Department of Electronics and Communication Engineering. We look forward to embarking on a journey of knowledge, discovery, and innovation together.

About ECE Department

Electronics and Communication Engineering witnessed significant growth in India over the past few decades. Electronics and Communication Engineering (ECE) is a specialized branch of engineering that focuses on the design, development, and application of electronic devices, communication systems, and related technologies. It plays a crucial role in shaping modern society by enabling efficient communication, advanced electronic devices, and cutting-edge technology solutions. Graduates with a degree in Electronics and Communication Engineering have a wide range of career opportunities. They can work as Electronics Engineers, Communication Engineers, Embedded System designers, VLSI engineers, Network Engineers, Research Scientists, Consultants, and even pursue higher studies in specialized fields.

Electronics and Communication Engineering at GCET is headed by Dr. Swaminathan Ramamurthy and has 40 faculty members who have received their PG and Ph.D degrees from top-notch universities. The faculty members of this department are consistently doing well in teaching and research. The department offers B.Tech in Electronics and Communication Engineering with 180 intakes. The B.Tech ECE programme attracts the brightest students of the state every year. The placement record of the department has always been impressive. Almost 100% of the students get jobs from the campus placement and many of them are getting it in core companies every year. We encourage the students to do design and research based projects during their B.Tech degree.

The department has state-of-the art laboratories in almost all the areas of Electronics and Communication with modern simulation tools to cater to various specializations and is equipped with facilities for measurement, characterization and synthesis of experimental as well as theoretical results. The department has organized several guest lectures, short-term training programmes, workshops, seminars, symposiums and conferences in the field of Electronics and Communication. The department is actively involved in R&D activities and regularly publishes their research in reputed Journals and Conferences. The research areas include Wireless Communication and Networks, Microwave Engineering, Antenna design, VLSI Design, Signal and Image Processing, Communication Engineering, IoT and Embedded Systems.

Galgotias Electronics Society (GNIX) is a Techno-Cultural society in the department of Electronics and Communication Engineering. The objective of the GNIX society is to spread technical awareness and social responsibility. Student members of GNIX keep organizing various co-curricular and extra-curricular activities like seminars, workshops, guest lectures, and industrial visits etc. for the students of the department.

B. Tech. ECE is accredited by the National Board of Accreditation (NBA).

INITIAL ACCREDITATION-2017, FIRST RE-ACCREDITATION-2020, SECOND RE-ACCREDITATION-2021.

Vision of Institute

To be a leading educational institution recognized for excellence in engineering education and research producing globally competent and socially responsible technocrats.

Mission of Institute

IM1: To provide state of the art infrastructural facilities that support achieving academic excellence.

IM2: To provide a work environment that is conducive for professional growth of faculty and staff.

IM3: To collaborate with industry for achieving excellence in research, consultancy and entrepreneurship development.

Vision of Department

To be recognized as a center of excellence in Electronics and Communication Engineering for the quality and global education, interdisciplinary research and innovation, to produce committed graduates who can apply knowledge and skills for the benefit of society.

Mission of Department

DM1: To provide quality education by providing state of the art facility and solutions for global challenges.

DM2: To provide a framework for promoting the industry-institution collaboration and empower the students in interdisciplinary research.

DM3: To transform students into socially responsible, ethical and technically proficient engineers with innovative skills and usage of modern tools.

DM4: To make the students corporate ready with spirit and necessary interpersonal skills.

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

By the completion of Electronics & Communication Engineering program the student will be able to:

PSO1: Design and develop models for analog & digital electronic circuits and systems.

PSO2: Design, develop and test electronic and communication systems for applications with real Time constraints.

Program Educational Objectives

PEO 1	Graduates will excel in their career by acquiring knowledge in the field of Electronics and Communication Engineering with the usage of modern tools and emerging technologies.
PEO 2	Graduates will have the capability to analyze real life problems of the society and produce innovative solutions.
PEO 3	Graduates exhibit professionalism, ethical attitude, communication skills and team work in core engineering, academia and research organizations through professional development and lifelong learning.

List of Faculty in The Department:

S. No	Name	Qualification	Area of Specialization	Designation
1	Dr. Swaminathan	Ph. D	Antenna Design and Image Processing	Professor & HOD
2	Dr. R.L. Yadava	Ph. D	Communication	Professor
3	Dr. Jaspreet Kour	Ph. D	Image Processing	Professor
4	Dr. S. Pratap Singh	Ph. D	Wireless Communication	Professor
5	Dr. Shahid Eqbal	Ph. D	Digital Electronics and Systems	Associate Professor
6	Dr. Gaurav Saxena	Ph. D	RF and Microwave	Associate Professor
7	Dr. Monika Bhatnagar	Ph. D	Antenna and Communication Engineering	Associate Professor
8	Dr. Ankit Sharma	Ph.D	Signal Processing	Assistant Professor
9	Dr. Kuldeep Singh	Ph.D	Electronics and Communication	Assistant Professor
10	Mr. Atul Kumar	M. Tech	Electronics and Communication	Associate Professor
11	Mr. Amanpreet Singh Saini	M. S	Wireless Communication	Assistant Professor
12	Mr. Saurabh Katiyar	M. Tech	Micro Electronics and Embedded Technology	Assistant Professor
13	Mr. P.C. Joshi	M. Tech	VLSI Design	Assistant Professor
14	Mr. Deependra Sinha	M. Tech	Electronics and Communication	Assistant Professor
15	Mr. Gavendra Singh	M. Tech	Control and Instrumentation	Assistant Professor
16	Mr. Amit Gupta	M. Tech	VLSI Design	Assistant Professor
17	Ms. Ranjana Kumari	M. Tech	Electronics and Communication	Assistant Professor
18	Ms. Ruchi Agrawal	M. Tech	Communication Engineering	Assistant Professor

19	Mr. Shivam Gupta	M.Tech	Process Control	Assistant Professor
20	Mr. Gaurav Mehra	M. Tech	VLSI Design	Assistant Professor
21	Mr. Bishnu Deo Kumar	M. Tech	Mechatronics	Assistant Professor
22	Mr. Mohd. Shibly	M. Tech	Nano Technology	Assistant Professor
23	Ms. Rekha Rani	M.E	Optical Wireless Communication	Assistant Professor
24	Mr. Ausaf Hasan Tarique	M. Tech	Electronics and Communication	Assistant Professor
25	Mr. A. S. Mohammed Shariff	M.E	VLSI Design	Assistant Professor
26	Dr. Nitin Garg	Ph.D	Free Space Optical Communication	Assistant Professor
27	Dr. Kirti	Ph.D	VLSI Design	Assistant Professor
28	Dr. Ashish Pandey	Ph.D	Machine Learning, Optimization Algorithms, Wireless Communications	Assistant Professor
29	Mr. Mukesh Chauhan	M.Tech.	Signal Processing	Assistant Professor
30	Mr. Dhinakaran M	M.E.	Applied Electronics	Assistant Professor
31	Apurva Thakur	M.Tech.	Nanosensors	Assistant Professor
32	Priyanka Rahi Bhalla	M.Tech.	Wireless Communication	Assistant Professor

New Faculty Joined In This Academic Year:

S. No	Name	Qualification	Area of Specialization	Designation
1	Dr. Ningombam Ajit	Ph. D	Semiconductor Device	Assistant Professor
2	Dr. S. Mohamed Sulaiman	Ph. D	VLSI Circuit Design	Assistant Professor
3	Dr. Shilpee Patil	Ph. D	Antenna Design	Assistant Professor
4	Ms. Avinash Kaushal	M.Tech.	Sensors, image processing, Adulteration	Assistant Professor
5	Mr. Mohd. Alamgir Khan	M.Tech.	Renewable Energy, Control System, Instrumentation	Assistant Professor
6	Mr. Anil Kr. Pandey	M.Tech.	Antenna Design	Assistant Professor
7	Ms. Nahid Malik	M.Tech.	DIGITAL IMAGE PROCESSING	Assistant Professor
8	Ms. Shikha Gupta	M.Tech.	VLSI designs, embedded,IoT,ML	Assistant Professor

Faculty Publications:

Faculty Publications in Journals

S. No.	Name of Author	Title of Paper	Type	Category	Name of Journal	Publication Month/ Year
1	S. Pratap Singh, et al.	Performance of Electromagnetic Nanonetwork under relaying for plant monitoring	Journal	International	Physical Communication, Vol. 47, 101316	Aug-21
2	Gaurav Saxena, et al.	Four-element pentaband MIMO antenna for multiple wireless application including dual-band circular polarization characteristics	Journal	International	International Journal of Microwave and Wireless Technologies, Vol. 14, No. 4, pp. 465–476	May-22
3	Ramlal Yadava, et al.	Wi-fi reconfigurable dual band microstrip mimo antenna for 5g and wi-fi wlan applications	Journal	International	Przeglad Elektrotechniczny, Vol. 97, No. 7, pp. 66-71	Jul-21
4	Gaurav Saxena, et al.	Quad-band circularly polarized super-wideband MIMO antenna for wireless applications	Journal	International	International Journal of RF and Microwave Computer-Aided Engineering, 2022	2022
5	Madan Kumar Sharma, Ankit Sharma, et al.	Easily extendable four port MIMO antenna with improved isolation and wide bandwidth for THz applications	Journal	International	Optik, Vol. 247, 167910	Dec-21
6	Ankit Sharma, et al.	Design of Polarization Conversion Metasurface for RCS Reduction and Gain Improvement of Patch Antenna for Ku-Band Radar Sensing Applications	Journal	International	Sensors and Actuators A: Physical, Vol. 333, 113273	Jan-22
7	Ankit Sharma, et al.	Design of low RCS high gain CP slot antenna using polarization conversion metasurface	Journal	International	International Journal of Electronics, 2022	2022
8	Upendra Kumar Acharya, et al.	Directed searching optimized mean-exposure based sub-image histogram equalization for grayscale image enhancement	Journal	International	Multimedia Tools and Applications, Vol. 80, pp. 24005–24025	Jul-21
9	Upendra Kumar Acharya, et al.	Swarm intelligence based adaptive gamma corrected (SIAGC) retinal image enhancement technique for early detection of diabetic retinopathy	Journal	International	Optik, Vol. 247, 167904	Dec-21
10	Upendra Kumar Acharya, et al.	Speech quality evaluation for different pitch detection	Journal	International	International Journal of Speech Technology, Vol. 24, pp. 545–551	Sep-21

		algorithms in LPC speech analysis–synthesis system				
11	Madan Kumar Sharma, et al.	Design and Analysis of a Compact UWB-MIMO Antenna with Improved Isolation for UWB/WLAN Applications	Journal	International	Wireless Personal Communications, Vol. 119, pp. 2913–2928	Aug-21

Faculty Publications in Conferences

S. No.	Name of Author	Title of Paper	Type	Category	Name of Conference	Publication Date/ Year
1	Shahid Eqbal, et al.	Facial Recognition Based Attendance System	Conference	International	International Conference on Emerging Trends in Engg. & Technology-2021	07 - 08, July 2021
2	Ankit Sharma, et al.	Wide-Band Metamaterial Absorber Surface for RCS Reduction	Conference	International	IEEE Indian Conference on Antennas and Propagation, InCAP 2021, pp. 871–874	13 - 16, Dec 2021
3	Ankit Sharma, et al.	Design of Terahertz PCM and its Application in Polarisation Conversion and RCS Reduction	Conference	International	IEEE Indian Conference on Antennas and Propagation, InCAP 2021, pp. 863–866	13 - 16, Dec 2021

GNIX (An official club of the Department of ECE, GCET)

G-care

Caring for our seniors is the greatest responsibility they have. Those who walked before us have given so much and made possible the life we all enjoy. Without a sense of caring, there can be no sense of community

IETE Students' Chapter

IETE STUDENTS' CHAPTER was started in October 2018. This society is chaired by Dr. Swaminathan and Dr. S.P Singh and co-chaired by Mr. Dhinakaran M.; Students from first year to final year are members of this society and till now there are 106 students. Apart from student members, there are faculty members also.

Eminent Recruiters:

idea	**Cummins**	**Cognizant**	**appin**
ERICSSON	**wipro**	**Infosys**	**AON** Hewitt
SAMSUNG	**Tech Mahindra**	**IBM**	**intec**
vivo	**NOKIA** Connecting People	**headstrong** a *GENPACT* company	**Relcom Group**