EC-NEWSLETTER 2021-22
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"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 Engineering

MESSAGE FROM HEAD OF THE DEPARTMENT

Welcome to the Department of Electronics and Communication Engineering (ECE), where innovation meets excellence!

In a world increasingly driven by technology, our department stands at the cutting edge of education, research, and industry collaboration. We are dedicated to cultivating a transformative learning experience that seamlessly integrates theory with practical application, preparing our students to lead in the dynamic and ever-evolving field of Electronics and Communication Engineering.

Our department is home to world-class laboratories and state-of-the-art research facilities, empowering our students and faculty to engage in groundbreaking research and innovative projects. Our faculty members are more than educators; they are pioneers and thought leaders, advancing the frontiers of knowledge in critical areas such as Wireless Communication, Microwave Engineering, VLSI Design, Embedded Systems, and Signal Processing.

We are deeply committed to bridging the gap between academia and industry. Through strong partnerships with leading companies and research organizations, we ensure our curriculum remains at the forefront of technological trends, providing our students with invaluable hands-on experience and exposure to real-world challenges. Our alumni, spread across the globe, are making impactful contributions to industry, academia, and research, embodying the spirit of excellence that defines our department.

As we look to the future, our mission remains unwavering: to inspire and develop the next generation of engineers, drive innovative research, and contribute to the technological advancement of society. I invite you to explore our department, engage with our community, and join us on this journey of discovery and achievement.

Thank you for your interest in the Department of Electronics and Communication Engineering. We look forward to welcoming you to our vibrant and forward-thinking community.

Best Wishes,

Dr. Lakshmanan M

About ECE Department

The Department of ECE offers B.Tech courses in Electronics and Communication Engineering from Dr. A.P.J. Abdul Kalam Technical University, (formerly Uttar Pradesh Technical University/Gautam Buddh Technical University) Lucknow. Electronics & Communication Engineering deals with the electronic devices, circuits, communication equipments like transmitter, receiver, integrated circuits (IC). Microprocessors, satellite communication, microwave engineering, antenna and wave propagation. The department aims to impart high quality education in ECE and conduct top notch research in ECE related fields.

The department provides state-of-art infrastructure and computing facilities to students and faculty. The faculty members are actively involved in different domains of research with special focus in five thrust areas:

1. Wireless Communication and Networks
2. Microwave and Antennas,
3. VLSI Design
4. Communication Systems
5. Signal and Image Processing.

The department has a regular hardware and software labs as well as the state-of-art research labs in microwave and antennas, where faculty and students are working on funding projects and offering consultancy services. Some of the available softwares in ECE department are Riverbed Academic edition, OrCAD PSPICE, eSim, SCILAB, OR-Tools, Expeyes, etc. The Department follows a well proven pedagogy of sharing knowledge with the young and vibrant minds of the college. As we are affiliated to AKTU University, Lucknow, the curriculum and subjects are prescribed by AKTU University. In addition to instruction in core ECE subjects, we also teach elective subjects in advanced topics such as Voice over Internet Protocol, Filter Design, Digital Image Processing, Digital System Design using VHDL, Speech Processing, Advance Digital Design using Verilog, Microcontroller for Embedded Systems, etc. The department imparts world class training and research besides promoting active industry-institute collaboration by identifying current trends and taking part in sponsored research projects and consultancy services. The department also has a worldwide reach with its vibrant alumni network. Working shoulder with shoulder with the institution, it is constantly aiming towards reaching greater heights to serve the needs of the society and meet the aspirations of the student community.

INSTITUTE VISION & MISSION

Vision

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

Mission

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.

DEPARTMENT VISION & MISSION

Vision

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

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. Lakshmanan. M	Ph. D	Wireless Communication and Networks	Professor & HOD
2	Dr. R.L. Yadava	Ph. D	Communication	Professor
3	Dr. JaspreetKour	Ph. D	Image Processing	Professor
4	Dr. S. Pratap Singh	Ph. D	Wireless Communication	Professor
5	Dr. ShahidEqbal	Ph. D	Digital Electronics and Systems	Associate Professor
6	Dr. Madan Kumar Sharma	Ph. D	Microwave and Antennas	Associate Professor
7	Dr. Gaurav Saxena	Ph. D	RF and Microwave	Associate Professor
8	Dr. Monika Bhatnagar	Ph. D	Antenna and Communication Engineering	Associate Professor
9	Dr. Ankit Sharma	Ph.D	Signal Processing	Assistant Professor
10	Dr. Kuldeep Singh	Ph.D	Electronics and Communication	Assistant Professor
11	Mr. Atul Kumar	M. Tech	Electronics and Communication	Associate Professor
12	Mr. Amanpreet Singh Saini	M. S	Wireless Communication	Assistant Professor
13	Mr. SaurabhKatiyar	M. Tech	Micro Electronics and Embedded Technology	Assistant Professor
14	Mr. P.C. Joshi	M. Tech	VLSI Design	Assistant Professor
15	Mr. Deependra Sinha	M. Tech	Electronics and Communication	Assistant Professor
16	Mr. Rajiv Kumar Yadav	M.E	Electronics Instrumentation and Control	Assistant Professor
17	Mr. Gavendra Singh	M. Tech	Control and Instrumentation	Assistant Professor
18	Mr. Amit Gupta	M. Tech	VLSI Design	Assistant Professor

19	Ms. RanjanaKumari	M. Tech	Electronics and Communication	Assistant Professor
20	Ms. Ruchi Agrawal	M. Tech	Communication Engineering	Assistant Professor
21	Mr. Shivam Gupta	M.Tech	Process Control	Assistant Professor
22	Mr. Gaurav Mehra	M. Tech	VLSI Design	Assistant Professor
23	Mr. BishnuDeo Kumar	M. Tech	Mechatronics	Assistant Professor
24	Mr. Mohd. Shibly	M. Tech	Nano Technology	Assistant Professor
25	Mr. Hitesh Kumar	M. Tech	Instrumentation and Control	Assistant Professor
26	Ms. Shristi Priya	M.E	Wireless Communication	Assistant Professor
27	Ms. RuchiTripathi	M. Tech	Communication Engineering	Assistant Professor
28	Dr. Upendrakumar Acharya	Ph.D	Electronics and Communication	Assistant Professor
29	Ms. Rekha Rani	M.E	Optical Wireless Communication	Assistant Professor
30	Mr. Ausaf Hasan Tarique	M. Tech	Electronics and Communication	Assistant Professor
31	Mr. A. S. Mohammed Shariff	M.E	VLSI Design	Assistant Professor
32	Ms. S. Vaishnavi	M.E	Communication and Networking	Assistant Professor
33	Mr. R. Satheesh Kumar	M.E	Electronics and Control Engineering	Assistant Professor

New Faculty Joined In This Academic Year:

S. No	Name	Qualification	Area of Specialization	Designation
1	Dr. Nitin Garg	Ph.D	Free Space Optical Communication	Assistant Professor
2	Dr. Kirti	Ph.D	VLSI Design	Assistant Professor
3	Dr. Ashish Pandey	Ph.D		Assistant Professor
4	Mr. Mukesh Chauhan	M.Tech.	Signal Processing	Assistant Professor
5	Mr. Dhinakaran M	M.E.	Applied Electronics	Assistant Professor
6	Apurva Thakur	M.Tech.	Nanosensors	Assistant Professor
7	Priyanka RahiBhalla	M.Tech.	Wireless Communication	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	RamlalYadava, et al.	Wi-fi reconfigurable dual band microstripmimo antenna for 5g and wi-fiwlan applications	Journal	International	PrzegladElektrotechniczny, 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

S. No.	Name of Author	Title of Paper	Type	Category	Name of Journal	Publication Date/ Year
10	Upendra Kumar Acharya, et al.	Speech quality evaluation for different pitch detection algorithms in LPC speech analysis–synthesis system	Journal	International	International Journal of Speech Technology, Vol. 24, pp. 545–551	Sep-21
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	ShahidEqbal, 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 Department of ECE, GCET)

G-care

Caring by 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. Lakshmanan M and Dr. S.P Singh and co-chair 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.