| ISSUE JUL - SEP 2024 |

E-ETHOS

Official Newsletter of Electronics & Communication Department, SEEC, Manipal University Jaipur

MANIPAL UNIVERSITY JAIPUR

(University under Section 2(f) of the UGC Act)

Inside this Quarter issue:

- Messages
- Events
- Faculty and student achievements
- Recognition
- Publications

ABOUT THE DEPARTMENT

The Department of Electronics & Communication Engineering (ECE) at Manipal University Jaipur provides best learning environment for imparting scientific knowledge to develop practical design engineers. Keeping pace with latest technological trends and expectations of society, the department has adapted itself with continuous involvement of its stakeholders. The faculty at ECE always motivate and nurture students' inclination towards research and development with access to sophisticated PCB prototyping machine and latest software for publications in conferences and Journals of repute. The department offers 2 Undergraduate programs in Electronics and Communication Engineering and Electronics Engineering (VLSI Design & Technology); 1 Postgraduate program in VLSI and Embedded System Design and Doctorate program. The well-equipped laboratories and resourceful library at MUJ constitute the best info-oriented junction for the students.

The flexible curriculum at MUJ offers a diversified course bucket to pursue students' interest in communication systems, semiconductor and optical devices, electronic circuits, together with assembly languages, programming languages, and embedded systems, therby opening gates to interdisciplinary growth with a wide choice of career options to pursue their interest. The ECE graduates have been spread successfully in software as well as hardware industry.

Manipal University Jaipur is ranked 64 in NIRF-2024 ranking for Engineering

NIRF 2024
64th
University in India

MESSAGES

FROM DIRECTOR'S DESK

Prof. Amit Soni
Director SEEC

It is with great pride and enthusiasm that I congratulate the team at Department of ECE, MUJ for its next issue of newsletter, E-Ethos (July-September 2024). The achievements and success of students and faculty members is celebratory. Our institution remains committed to fostering an environment where innovation thrives, providing our students and faculty members with the tools and skills necessary to succeed in a rapidly changing world. Best wishes for success.

FROM HOD'S PEN

Dr.Shilpi Birla
HoD, ECE

As we dive into this July-September 2024 edition of our quarterly newsletter, E-Ethos, we look forward to future engineers who are at the forefront, driving innovation and crafting solutions to some of the most complex challenges humanity faces. We are proud of the research being conducted by our faculty and students, their efforts to learn and develop projects that push us to explore new frontiers. It is through these efforts that we continue to strengthen our reputation as a leader in engineering education and innovation.

Editorial

It is our pleasure to welcome the readers to this edition of our quarterly Newsletter at the Department of Electronics and Communication Engineering, Manipal University Jaipur. In this issue, we shine a spotlight on the events and achievements at the department. This newsletter is a testament to the incredible talent and drive within our institution. I would like to extend my heartfelt thanks to everyone who contributed their time, knowledge, and passion to making this issue a reality. It is through these shared efforts that we continue to grow as a hub of engineering excellence. As you explore the contents in this edition, we hope you will find not only inspiration but also a renewed sense of excitement about the future of engineering and the impact we can make on the world.

VISION

Global leadership and excellence in academics and research in electronics and communication engineering.

MISSION

To deliver a competitive academic curriculum for intellectual growth and Multi-disciplinary skill acquisition.

Promoting quality education, scientific awareness for future endeavors in higher education and career in electronics and communication industry.

To cater to the need of promoting leadership and professionalism with human values

EVENTS

Department of Electronics & Communication Engineering, School of Electrical, Electronics & Communication (SEEC), Manipal University Jaipur, Rajasthan, India, continually organizes events for faculty and students. These events are important as they provide opportunities to connect with potential mentors and employers, get in touch with industry requirements, develop social skills and empathy, develop skills like organization, creative thinking, problem-solving, cooperation and teamwork. Here is a glimpse of events organized during July-September 2024.

IEEE-EMC Society Student Branch Chapter was inaugurated on August 21, 2024. Prof. Shiban Koul, Honorary Professor at IIT Delhi graced the occassion as Chief Guest and distinguished speaker

The OPTICA and SPIE Student Chapters of Manipal University Jaipur engaged approximately 150 eager students, bringing the fascinating world of optics to life during outreach activity at MPS Bagru.

A session on mental well-being for students organized on 25 September 2024 by Dr. Rohit Mathur

5 days PDP on Verification and Testing with eInfochips and Synopsys during 22-26 July 2024 organized by Dr. Neha Singh & Dr. Deepika Bansal

EVENTS

Induction program to welcome 2024 batch to Manipal University Jaipur was organized on 27 August 2024. The event was graced by Prof. T G Sitharam, Chairman AICTE, Ministry of Education, Government of India

Field visit to Radio Manipal 90.8 FM for B Tech students under experiential leearning organized by Dr. Rohit Mathur on 19 September 2024

Live streaming of Address by Prime Minister Shri Narendra Modi during Inauguration of Semicon India 2024 conference was organized at TMA Pai Auditorium on 11 September 2024

A seminar on Study and Scholarships opportunities in United States was organized by Dr. Tarun Kumar Dubey & Dr. Abhishek Shrivastava on 9 September 2024

5 days FDP in collaboration with NITTTR, Chandigarh on Preparing students for placements and higher studies was organized by Prof. Amit Rathi during 5-9 August 2024

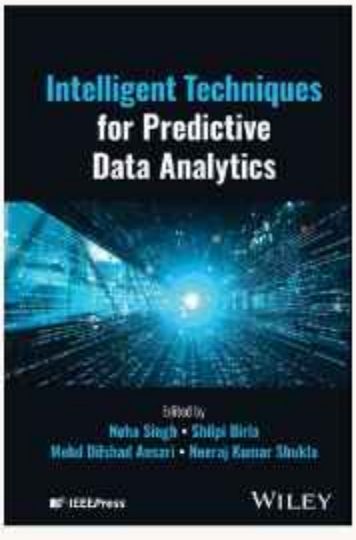
Venturethon '24 organized by School of Electrical, Electronics & Communication Engineering (SEEC) on 25 September 2024 with A C M and Cocreate Ventures to provides a unique platform for aspiring entrepreneurs and innovators to build and launch their idea while on campus

Industrial Lecture on fundamental for communication engineering jobs organized on 8 August 2024

Faculty Accomplishments

Prof. Manish Tiwari is recognized as Chairperson IETE Jaipur Centre (2024-26). He is also the Chair of the Optica's Technical Group on "Systems and Instrumentation FS"

Dr Dinesh Yadav bags 6G research project proposal titled "Design and Development of Fluid Antenna for 6G Wireless Communication" (Proposal ID: TTDF/6G/533), with a total budget of Rs. 40.00 Lakhs, under the Telecom Technology Development Fund (TTDF) scheme by the Department of Telecommunication (DoT), Government of India. This project will be carried out through Telecom Centres of Excellence (TCOE) India. He is also recognized as Vice Chair, IETE Jaipur Centre (2024-26)



Scopus indexed book published by Dr Neha Singh and Dr Shilpi Birla with Wiley

Dr Vishal Das and Dr Chusen Duari bags project under Manipal Research Board Scheme

Prof. Manish Tiwari, Dr Ankur Saharia bags poject under Manipal Research Board Scheme

Dr Dinesh Yadav has published 2 Patents titled FLEXIBLE PLANNER ANTENNA WITH DEFECTED GROUND STRUCTURE FOR SMART WEARABLE IOT DEVICES (202411068935A); ANTENNA STRUCTURE FOR SUB-SIXTH GENERATION BAND ENHANCED FOR MILLIMETER-WAVE COMMUNICATION (202441064691A)

Haifa Bahlouli from Tunisia completed internship under Dr Madhuri Sahal and Alejandra Palomo Baron from Spain completed internship under Dr Dinesh Yadav as a part of international student exchange program under International Association for the Exchange of Students for Technical Experience (IAESTE)

STUDENTS' ACHIEVEMENTS

Manas Triphathi (219202050) is recognised as DAAD Young Ambassador by German Academic exchange service

Akshat Agarwal represented Optica student chapter (MUJ) at Student leadership and frontiers in optics Conference at Denver USA

Piyush Srivastava gets fully funded PhD at Clemson University, USA

Book published by Harshita Rai (2016-2020 batch)

RAJU YADAV
B.TECH ECE
BATCH: 2021-2025

Congratulates

For being selected in 'Research Internship' at **'Indian Space Research Organization (ISRO), Ahmedabad'**

Soumil Hallan (229202045) was selected as Summer Research Intern at Indian Institute of Technology Mandi during June 7 to July 28, 2024.

Congratulates

For starting a new position as 'Summer Intern' in **'Indian Institute of Science (IISc), Bangaluru'**

SIDDHANT SHARMA
B.TECH ECE
BATCH: 2021-2025

Naman Toshniwal (219202002) won 2nd place in Lawn Tennis at BITS Open Sports Meet-2024

Agrima Joshi (23FE10ECE00045) got all India 8th rank in nationals in pistol shooting. Targeting Indian team trials

Kartik Sharma (229202068) completed a three-month on-site research internship at National Chung Cheng University in Taiwan from May to July, where he developed a digital twin model of the Satluj River that can predict flood events.

Congratulates

For clearing GATE examination and got admission in 'Indraprastha Institute of Information Technology' for MTech in ECE (Specialization in VLSI)

Nachiket Gaikwad
B.TECH ECE
BATCH: 2020-2024

Student Chapters at ECE, MUJ

SPIE. STUDENT CHAPTER | IEEE | IEEE | CAS | EMC SOCIETY | OPTICA | Manipal University Jaipur Student Chapter

RECOGNITION

PhD scholar Mr.Pradeep Kumar Kumawat is recognized as top performer of COHORT 2, in level 1 and Advance level program by ISWDP by Synopsys

Department of ECE participated in the IESA regional meet

Student Project by Vaibhav Nagpal (219202053) and Bidisha Talukdar (219202020) is shortlisted in Design contest organized by STMICROELECTRONICS and IEEE- ISES

पीएचडी उपाधि

आरयू ने सुमैय्या सलीम को उनके शोध कार्य डिजाइन एंड डवलपमेंट ऑफ रीकॉन्फिगरेबल मल्टिपल इनपुट मल्टिपल आउटपुट (मीमो) एंटिना फॉर मॉडर्न वायरलैस कम्युनिकेशन सिस्टम पर पीएचडी की उपाधि दी है। सुमैय्या ने शोध डॉ. सरिता (एसो. प्रोफेसर, आरयू) व डॉ. दिनेश (एसो. प्रोफेसर, मणिपाल विश्वविद्यालय जयपुर) के निर्देशन में पूरा किया है।

PhD awarded under Dr. Dinesh Yadav at Rajasthan University

Dr Neha Singh delivered a talk at a National Seminar at Vels University Chennai

Manas Tripathi (219202050) was a resource person for a workshop at Banasthali Vidyapeeth

RESEARCH PUBLICATIONS

- Igumenov, Alexander Yu, Bourdine, A. V., Osadchii, Kirill V., Sutorin, Daniil A., Pchelkin, Grigori A., Evtushenko, Alexander S., Zaitseva, Elena S., Saharia, Ankur, Singh, Ghanshyam, Tiwari, Manish, 'Results of mode and dispersion analysis for silica few-mode hollow-GeO2-doped-ring core microstructured optical fiber', Proceedings of SPIE - The International Society for Optical Engineering, Volume 131682024. 2024
- Rathi A., Gaur S., 'Comparative analysis of the different substrate materials for achieving biocompatibility in the rectangular stripped microstrip patch antenna', Lecture Notes in Electrical Engineering. 2024
- Evtushenko A. S., Bourdine, A. V., Dashkov M. V., Pchelkin G. A., Zaitseva E. S., Barashkin A. Y., Demidov V. V., Ter-Nersesyants E. V., Saharia, Ankur, Tiwari, Manish, Singh, Ghanshyam, Dukelskii, Konstantin V., 'Results of mode analysis, performed for fabricated silica microstructured optical fiber with equiangular spiral sixray geometry', Proceedings of SPIE - The International Society for Optical Engineering. 2024
- Praporshchikov D. E., Bourdine A. V., Evtushenko A. S., Pchelkin G. A., Zaitseva E. S., Dmitriev E. V., Ibragimov R. Z., Khadjaev M. S., Komar M. V., Pashin S. S., Bylina M. S., Glagolev S. F., 'Selection issues of equivalent angular misalignment at regular span splices during piecewise regular fiber optic link simulation', Proceedings of SPIE - The International Society for Optical Engineering. 2024"
- Punia S., Saharia A., Bourdine A. V., Morozov O. G., Meshkov I. K., Singh G., Tiwari M., 'Mode purity analysis of octagonal, spiral and hexagonal shaped photonic crystal fiber for OAM mode propagation', Proceedings of SPIE - The International Society for Optical Engineering. 2024
- Choure K. K., Prajapat M., Saharia A., Bourdine A. V., Morozov O. G., Meshkov I. K., Tiwari M., Singh G., 'Silicon nitride ring resonators based alloptical cnot logic gate', Proceedings of SPIE - The International Society for Optical Engineering. 2024
- Igumenov, A. Y., Bourdine, A. V., Osadchii, Kirill V., Sutorin, Daniil A., Pchelkin G. A., Evtushenko A. S., Zaitseva E. S., Saharia A., Singh G., Tiwari M., 'results of mode and dispersion analysis for silica few-mode hollow-GeO2-doped-ring core microstructured optical fiber', Proceedings of SPIE - The International Society for Optical Engineering. 2024"
- Bourdine, A. V., Evtushenko, A. S., Pchelkin G. A., Dashkov M. V., Ter-Nersesyants, Egishe V., Zaitseva, Elena S., Gizatulin, Azat R., Igumenov A. Y., Kolesnikov Oleg V., Khadjaev, Mukhammadzoir S., Meshkov, Ivan K., Nikulina, Tatiana V., 'Results of laser beam profile measurements after propagation over untwisted and twisted silica hollow-GeO2-doped-ring core microstructured optical fibers, combined with large core multimode optical', Proceedings of SPIE - The International Society for Optical Engineering. 2024"
- Agarwal A., Mittal S., Punia S., Saharia A., Bourdine, A. V., Morozov, O. G., Meshkov, I. K., Ismail Y., Singh G., Tiwari M., 'A sixcore microstructured fiber for sensing applications', Optics Infobase . 2024
- Rathi P., Rathi A., Sidana S., Tailor R. K., 'Exploring the influence of entrepreneurship factors on socioeconomic empowerment of women entrepreneurs', Academy of Marketing Studies Journal. 2024
- Gupta S., Mishra D., Mahapatra S. D., Singh K., 'Integration of silicon nanostructures for health and energy applications using mace: a costeffective process', Nanotechnology. 2024
- Vijay A., Duari C., Garg L., Singh A. K., 'Low power cmos differential amplifiers through acm model: process variations and yield prediction', Journal of Integrated Circuits and Systems. 2024
- Gaur S., Rathi A., Rawal P., 'A novel dualband defected ground structure wearable microstrip patch antenna for breast tumor detection in biomedical applications', Engineering Research Express. 2024
- Rajput A., Kumawat R., Sharma J., Srinivasulu A., 'Design of novel high speed energy efficient robust 4:2 compressor', Journal of VLSI Circuits and Systems. 2024
- Chaudhary P., Rathi A., Singh A. K., 'first-principles calculation of structural, electronic, and optical properties of InP1-XSbX USING WC-mBJ for nanoscale IR applications', Nanoscience and Technology. 2024

EDITORIAL TEAM