



MANIPAL UNIVERSITY
JAIPUR

SPARK

- **Volume 1 Issue 2**
- **(April-June 2024)**

Newsletter of

Department of Electrical Engineering Department

Manipal University Jaipur

**Faculty
Editor**

Peeyush Garg

*Assistant Professor, Dept of Electrical Engineering,
Manipal University Jaipur*

peeyush.garg@jaipur.manipal.edu





About Newsletter

The second issue of "**SPARK**" continues to celebrate the vibrant achievements of the Department of Electrical Engineering. This edition features a blend of academic and extracurricular highlights, showcasing the **faculty's participation** in cutting-edge **Faculty Development Programs (FDPs)** and the successful completion of **student projects** aimed at solving real-world problems. The newsletter also covers the **industrial internships** completed by students, offering them invaluable hands-on experience in top-tier companies. We are proud to highlight the **higher study admissions** of several graduates to prestigious global institutions, along with the recognition of **awards and accolades** earned by both students and faculty.

This issue reflects our department's ongoing commitment to excellence and innovation, with **participation in conferences and workshops** rounding off the diverse activities covered. "SPARK" Vol. 1, Issue 2 continues to motivate and inspire the department to push boundaries in education and research.

Peeyush Garg, Faculty Editor- SPARK

Messages



From HoD Desk

It gives me immense pleasure to see the continued success and progress of our department newsletter, “SPARK”. The response to our first issue was overwhelming. This newsletter is more than just a collection of articles; it reflects the passion, innovation, and hard work that defines our department.

As we move forward with this second issue, I encourage all members of our community, students and faculty members for active participation. Let’s continue to push boundaries, explore new ideas, and contribute to the ever-evolving world of electrical engineering. I would like to thank the editorial team for their dedication, and I look forward to seeing even more engaging and thought-provoking content in this issue.

**Dr. Sunil Kumar Goyal, Head,
Electrical Engineering Department,
Manipal University Jaipur**

About Department

Skill Enhancements:

Participation in Faculty Development Programme (FDP)

Faculty Name	Organizing institution	Name of Event
Dr. Neeraj Kanwar	<i>NITTR Chandigarh</i>	AICTE Recognized FDP on "Clean and Green Technologies for Environment Sustainability"
Dr. Vinay Gupta	<i>NITTR Chandigarh</i>	AICTE Recognized FDP on "Clean and Green Technologies for Environment Sustainability"
Dr. Divya Rishi Shrivastava	<i>NITTR Chandigarh</i>	AICTE Recognized FDP on "Clean and Green Technologies for Environment Sustainability"
Dr. Sunil Kumar Goyal	<i>NITTR Chandigarh</i>	AICTE Recognized FDP on "Clean and Green Technologies for Environment Sustainability"
Mr. Samarendra Pratap Singh	<i>NITTR Chandigarh</i>	AICTE Recognized FDP on "Clean and Green Technologies for Environment Sustainability"
Mr. Satyanarayan Agrawal	<i>NITTR Chandigarh</i>	AICTE Recognized FDP on "Clean and Green Technologies for Environment Sustainability"
Mr. Vikash Kumar Boradak	<i>NITTR Chandigarh</i>	AICTE Recognized FDP on "Clean and Green Technologies for Environment Sustainability"
Dr. Amit Saraswat	<i>NITTR Chandigarh</i>	AICTE Recognized FDP on "Clean and Green Technologies for Environment Sustainability"
Dr. Amit Saraswat	<i>Jamia Millia Islamia University</i>	FDP on "Advancement of Control and Measurement Technologies in EVs and Smart Grids"
Dr. Manish Kumar Thukral	<i>NITTR Chandigarh</i>	AICTE Recognized FDP on "Clean and Green Technologies for Environment Sustainability"
Mr. Peeyush Garg	<i>IQAC-MU Jaipur</i>	AICTE Recognized Capacity Building workshop on "Curriculum Design for Outcome Based Education"

Research Outcomes

Journal Articles Published

- **Mr. Gaurav Gangil (Ph.D. Scholar)**, Sunil Kumar Goyal, Amit Saraswat published a research paper titled as "Multi-objective optimization of reactive power dispatch problem using fuzzy tuned mayfly algorithm" in scopus indexed journal Expert Systems with Applications, in year 2024, Volume: 249 Page: 123819.
- **Bhuwan Pratap Singh (Ph.D. Scholar)**, Sunil Kumar Goyal, Divya Rishi Shrivastava published a research article titled as "A Novel Approach for Enhanced Real-Time Event Diagnosis for Grid Connected Microgrid with Multiple Distributed Energy Resources (DERs)." in scopus indexed journal: International Journal of Mathematical, Engineering & Management Sciences 9, no. 3 (2024).
- Himanshu Priyadarshi published a research article titled as "Fault Prognosis in Smart Distribution System with Distributed Generation Using Fast Fourier Transform Assisted Machine Learning" in scopus indexed journal : IETE Journal of Research (v23:page1-7) in May 2024
- Abhishek Kumar is published a research paper titled as "Designing a PID Pitch Controller with HIL Solution for Maintaining Stability and Controllability of a Hybrid Airship" in scopus indexed journal Mathematical Modelling of Engineering Problems, v11(4).
- Peeyush Garg is published a research paper titled as "Evolution of the damage precursor based on the felicity effect in shale" in scopus indexed journal International Journal of Damage Mechanics in May 2024

Conference paper presentations

- **Mr. Raj Kumar Soni (Ph.D. Scholar)**, Manish Kumar Thukral, and Neeraj Kanwar published a research paper titled as "A comparative analysis of some recently proposed one-dimensional chaotic maps for IoT device data encryption." in confernece AIP Conference Proceedings. (Vol. 3122. No. 1. AIP Publishing, 2024)
- Sunil Kumar Goyal, **Mr. Gaurav Gangil (Ph.D. Scholar)**, and Amit Saraswat published a conferene paper "A Review on Uncertainty Modelling Approaches for Stochastic Optimization in Power System." 2024 4th International Conference on Innovative Practices in Technology and Management (ICIPTM). IEEE, 2024.

Expert Faculty Visit and interaction

Dr. Rajesh Kumar Nema, Professor, Department of Electrical Engineering, Maulana Azad National Institute of Technology, Bhopal was visited Electrical Engineering Department, MUJ and interacted with faculty members on 30/05/2024 (Friday).



Faculty Accomplishments



Ph.D. Awarded:

- Many congratulate to Dr. Ritesh Singh, Assistant Professor, for completion of Ph.D. from School of Advanced Engineering (SoAE), UPES, Dehradun, India.

PhD Award Announcement



Ph.D. Awarded:

- Congratulations to Ms. Aditi Gaur (199205601), research scholar, Department of Electrical Engineering; for successfully defended her Ph.D. viva voce on 30-05-2024.

Higher Education Admissions



Many congratulations our students Mr. Sarthak Nandanwar, VIII Sem, B.Tech (Electrical and Electronics Engineering)-Batch 2020-24, for getting admission in Master programme "Nanoelectronic Systems" at Technische Universität - TU Dresden, Germany.



Many congratulations our students Mr. Prachet Dasika, VIII Sem, B.Tech (Electrical and Electronics Engineering)-Batch 2020-24, for getting admission in Master programme at Carnegie Mellon University, Pittsburgh, Pennsylvania, United States.

Students Accomplishments



Students' Active Contributions:

- **Mr. Akash Banerjee, students, forth Semester, BTech.- Electrical & Computer Engineering,** demonstrated his organizational skills as the Joint Head of Promotions for the IEEE Student Branch at MUJ. He played an active role in the IEEE MUJ Student Chapter, and ONERIOS-2024.



Students' Extra-circullar Participation:

- **Ms. Arjavi Arya (229209006),** student of IV Semester, B.Tech. (Electrical and Computer Engineering), proudly represented Manipal University Jaipur as part of the university's team in the West Zone Inter-University Football (Women) Championship 2023-24, held at ITM University, Gwalior.

Internships/ Industrial Engagements

Following students of VIII Semester, BTech. (EEE) students have successfully completed 4-6 months of Industrial Internship as Major Projects in reputed industries:

Name of the student	Registration Number	Industry Name and location
Amandeep Choudhary	209205004	Adani Green Energy limited
Divyansh Pathak	209205005	Batt:re electric mobility pvt ltd, Gurugram
Harsh Malik	209205011	Elite Organics
Pracheth Dasika	209205014	Larsen and Toubro, Mumbai
Nitin Jadvan	209205024	MPAGS E-System & Innovative Solution Pvt. Ltd.
Sarthak D. Nandanwar	209205032	Samtel Avionics Limited
Aryan Agrawal	209205048	O2 Power Private Limited, Rewa
Urmila Debnath	209205055	Tripura state electricity corporation limited
Yashwardhan Gehlot	209402063	Annova Solutions Pvt. Ltd.
Ankit Yadav	209205049	North Central Railway, Agra
Anuj Upadhyay	209205046	Simtrak Solutions, Kolkata
Arya Nitin Ashar	209205029	Siemens Ltd, Mumbai
Gaurab Borah	209205041	Treebo, Bengaluru
Maitreya M. Sawant	209205025	Welspun, Mumbai
Mohit Choudhary	209205052	Evage Automotive Pvt. Ltd., Gurugram
Moosa Faraaz	209205008	Evage Automotive Pvt. Ltd., Gurugram
Nayan Agrawal	209205013	Batt:re electric mobility pvt ltd, Gurugram
Prachi Pal	209205026	Juniper green energy Pvt Ltd, Gurugram
Priyansh Khurdia	209205012	Kundan Switchgears Pvt. Ltd. Udaipur
Sabuj Ariyan Mallick	209205007	Converge Automatics Solutions Private Ltd. Pune
Shivam Aggarwal	209205003	Omega Power Industry, New Delhi
Shreya Chouhan	209205022	Caparo Maruti Limited, Gurugram
Vanshdeep S. Chopra	209205038	Volvo Eicher Commercial Vehicles Ltd, Indore
Vidhit Shetty	209205047	Prabhat Powertech Pvt Ltd, Mumbai
Nipun Anand	209403001	Escorts Kubota Limited, Faridabad

Project based learning outcomes

2nd year students of Electrical engineering department have shown their innovative skills and technical involvement by developing technical projects listed.

Students Team members	PBL Project
Sanskar Bansal, Vikas Choudhary students, IV Sem, B.Tech. (ELC)	Solution Of Farmers Problems Using Sensors
Mohd Ateek Khan, Md. Nasir students, IV Sem, B.Tech. (ELC)	Car Price Prediction Using Machine Learning
Jaskaran A Singh Rustam, Diwanshu Poonia students, IV Sem, B.Tech. (ELC)	Unleashing The Power of Jarvis: A Voice Assistant based on AI
Arjavi Arya, Aryan Bhati students, IV Sem, B.Tech. (ELC)	Coffee Shop Website
Parth Tiwari, students, IV Sem, B.Tech. (ELC)	Developing The News Portal
Anurag Sharma, Yashaaditya students, IV Sem, B.Tech. (ELC)	Quant Computing In Finance
Harsh Panwar, students, IV Sem, B.Tech.(ELC)	Costumer Billing System
Raghav Bhatia, students, IV Sem, B.Tech. (ELC)	Human Following Robot
Saksham Agarwal, Tia Jain students, IV Sem, B.Tech. (ELC)	Aurveda Revival
Nishit Dongre, Rishabh Bachani students, IV Sem, B.Tech. (ELC)	Online Multi-Calculator Platform- Calci Pal
Sanya Bakshi, Ansh Jast students, IV Sem, B.Tech. (ELC)	Resume Maker
Mohit Sharma, Kushal Kedawat students, IV Sem, B.Tech. (ELC)	Expense Tracker
Ayushi mittal students, IV Sem, B.Tech. (ELC)	Weather Website Development
Akash Mukherjee students, IV Sem, B.Tech. (ELC)	Home Automation using ESP32
Mimansha Bhandari, Harshit Dua students, IV Sem, B.Tech. (ELC)	Advanced Game in C (Snake And Ladder with Modifications)
Vishesh Gupta, students, IV Sem, B.Tech. (ELC)	Age And Gender Detection using Python
Samiksha Sharma, students, IV Sem, B.Tech. (ELC)	Smart Door Lock Using Arduino
Naman Bhasin, Abhinav Kothari students, IV Sem, B.Tech. (ELC)	Crop Recommendation System
Tarunsh Gupta, students, IV Sem, B.Tech. (ELC)	Library Administration and Management System
Harsh Panwar, students, IV Sem, B.Tech. (ELC)	Customer Billing System
Manishka Vyas, Arup J Das students, IV Sem, B.Tech. (EEE)	Arduino-Based Traffic Light System
Ayush Saxena, Rudra Sankar Bishnu, Ayush Saxena students, IV Sem, B.Tech. (EEE)	Wireless Power Transfer Using Inductive Coupling

In-house Project Development: Minor Projects

Students Team members	Minor Project title
Aditi Singh students, VI Sem, B.Tech. (ELC)	Patient Health Monitoring System
Ansh U. S. Gupta, Nidhish Agrawal, students, VI Sem, B.Tech. (ELC)	Weather Monitoring System Based on IoT with HMI Display
Faiz Saifi, Md Wasif Saifi, Harsh Vardhan students, VI Sem, B.Tech. (ELC)	License Plate Recognition System
Jaswant Singh Gogadev students, VI Sem, B.Tech. (ELC)	Smart Door Lock with Attendance system using openCV
Mansi Raj, Naman Somani students, VI Sem, B.Tech. (ELC)	Environment Monitoring System Based on Blynk IoT
Mayank Bairagi, Tarushee Rai students, VI Sem, B.Tech. (ELC)	Autonomous Line Following Vehicle
Neeraj Poonia and Punkesh students, VI Sem, B.Tech. (ELC)	NPK Fertilizer Testing System
Nihar Gupta and Vineet Yadav students, VI Sem, B.Tech. (ELC)	Lip Reading Using Deep Learning
Pratyasha Moharana, students, VI Sem, B.Tech. (ELC)	Exotic Plant Greenhouse System
Raghav Srivastava, students, VI Sem, B.Tech. (ELC)	Gesture Controlled Light System
Shrish Bartakke, students, VI Sem, B.Tech. (ELC)	Data Acquisition System for BMS using GSM Module
Udayan, Maulik Agarwal & Mohammad Arshan Khan, students, VI Sem, B.Tech. (ELC)	Data Augmentation System
Vibhanshu Jain, students, VI Sem, B.Tech. (ELC)	Smart Object Control via Facial Recognition

Dean's Student Excellence Award

This award is presented to all brilliant students for their excellent academic performance and secure CGPA more than 9.5 in odd semester, 2024.

Name of Students	Regn No	Semester	Programme
Shruti Sharma	219205010	VI Semester	B. Tech. (Electrical & Electronics Engineering)
Naman Somani	219209022	IV Semester	B. Tech. (Electrical & Computer Engineering)
Nihar Gupta	219209001	IV Semester	B. Tech. (Electrical & Computer Engineering)
Nidhish Agarwal	219209026	IV Semester	B. Tech. (Electrical & Computer Engineering)
Saksham Agarwal	229209040	IV Semester	B. Tech. (Electrical & Computer Engineering)
Sanskar Bansal	229209036	IV Semester	B. Tech. (Electrical & Computer Engineering)
Vikas Choudhary	229209030	IV Semester	B. Tech. (Electrical & Computer Engineering)
Mohd Ateek Khan	229209041	IV Semester	B. Tech. (Electrical & Computer Engineering)
Vineet Yadav	219209018	IV Semester	B. Tech. (Electrical & Computer Engineering)
Ansh US Gupta	219209030	IV Semester	B. Tech. (Electrical & Computer Engineering)
Ayush Saxena	219205007	IV Semester	B. Tech. (Electrical & Electronics Engineering)



• Students Testimonial



Mr. Harsh Malik,
Final Year, B.Tech. (EEE)

I am deeply grateful for unwavering support and guidance throughout my engineering career, received from department of Electrical Engineering. Without this, I would not have secured a campus placement at Cipla as a junior officer engineer.

The Electrical and Electronics Department and the professors at Manipal University Jaipur have excellent facilities and resources that helped me succeed. Studying in this department has equipped me with the necessary skills and knowledge to secure a good role at a prestigious organization, thereby contributing to my career success. I am eternally grateful for the education I received here.



Website:

<https://jaipur.manipal.edu/foe/department-of-electrical-engineering.php>



Facebook:

<https://www.facebook.com/eemuji/>