



माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर (म.प्र.), भारत  
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA  
Deemed to be University  
(Declared Under Distinct Category By Ministry Of Education, Government Of India)  
NAAC ACCREDITED WITH A++ GRADE



MITS

ELECTRICAL ENGINEERING DEPARTMENT

# ELEC-TECH TIMES

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🌐 <https://web.mitsgwalior.in/newsletter-ece>

The Department of Electrical Engineering established in 1957, boasts a rich history as one of the institution's most earliest departments, initially enrolling 40 students. Currently, the department provides a diverse spectrum of educational opportunities, encompassing undergraduate, postgraduate, and doctoral programs in various Electrical Engineering disciplines. As of now, the B.Tech. program has a total capacity of 120 students, while the M.E. program in "Industrial Systems & Drives" accepts 25 students. Notably, in 2020, the department introduced a novel B.Tech. program focused on "Internet of Things," accommodating up to 60 students.

The department's primary areas of emphasis include Power Systems, Power Electronics, Control Systems, and Biomedical Instrumentation. To foster high-quality research, the department offers M.E. and Ph.D. programs, nurturing a culture of excellence in academic exploration. Equipped with cutting-edge laboratories, our department is dedicated to providing hands-on experiences that strengthen students' practical skills and actively support groundbreaking research initiatives.

Our department's mission is to prepare students for challenging roles in a wide array of industries and encourage engagement in research and development endeavors aimed at advancing society. To stay abreast of rapid technological advancements, our course syllabi are continually updated, and our laboratories are modernized.

Our course offerings cater to a broad spectrum of learning needs, spanning from foundational knowledge to advanced expertise. Furthermore, the department offers a wide range of elective courses to cover contemporary technological trends and developments.

***Vision***

*Our Vision: To Prepare Professionally Competent Electrical Engineers for Global Industrial requirements and Social needs*

***Mission***

*Our mission: Quality technical education, technology awareness, collaboration, and holistic student development through soft skills and ethics training.*

# FACULTY ACHIEVEMENTS

## TALK DELIVERED OUTSIDE THE INSTITUTE

- Expert Lecture on Diagnostic System for Bone Fractures Analysis Using Image Processing Techniques at UTD, CSVTU, Bhilai, on 10.05.2023.

## WORKSHOP/WEBINAR ATTENDED

- -Prof R Narvey, Attended 5 days of virtual FDP on Global conversation in Mech.Engg.: Bridging Innovation and Sustainability, conducted by MITS, Andhra Pradesh, India. Feb. 19-23, 2024.
- -Prof R Narvey, Attended 5 days online short term course on Recent Advances in optimizing techniques for Engg Applications, organised by NIT Kurukshetra march 02-06-, 2024.

## PUBLICATIONS

### (JOURNALS, CONFERENCES & BOOK CHAPTER)

- Solanki, A., Singh, P., Pandit, M., Sawle, Y., Alotaibi, M. A. Malik, H., García Márquez, F. P. & Afthanorhan, A. (2024). Techno-Economic-Environmental Assessment of Stand-alone Hybrid Renewable Energy System for Different Batteries using HOMER-Pro. International Journal of Mathematical, Engineering and Management Sciences, 9(4), 779-800. <https://doi.org/10.33889/IJMEMS.2024.9.4.040>.
- S. Babu and A. K. Wadhvani, "Elliptic Seizure Diagnosis using Wavelet Transform and Approximation Entropy in EEG Signals," in Proc. 3rd IEEE Int. Conf. Electrical Power and Energy Systems, jointly organized by Dept. of Electrical Engg. MANIT Bhopal and NPTI Faridabad (ICEPES-2024), June 21-22, 2024 .

- **Monika Saraswat, A. K. Wadhvani & Sulochana Wadhvani, Intelligent deep model based on convolutional neural network's and multi-layer perceptron to classify cardiac abnormality in diabetic patients Physical and Engineering Sciences in Medicine**<https://doi.org/10.1007/s13246-024-01444-7> Physical and Engineering Sciences in Medicine, Springer.
- **V.Suraj,Sneha Kaurav and R.Narvey , “Artificial Intelligence in the Field of Medicine” Journal of Emerging Technologies and Innovative Research,Vol.11,Issue 6 , (ISSN : 2349-5162), June 15, 2024.**
- **R.Narvey , Tshepal Gyaltzen Bhutia , “Research on the Exploitation of Artists in the K-Pop Industry ” International Journal for Multidisciplinary Research Vol.6,Issue3, eISSN:2582-2160, May- June 2024.**
- **Kulshrestha, D., Singh, A., Chaturvedi, R., Tiwari, A., Garg, M., Yadav, R. (2024). Enhancing Diabetes Management: A Machine Learning-Enabled IoT Framework for Early Detection. Presented at 3rd IEEE International Conference on Electrical Power and Energy Systems (ICEPES-2024), MANIT, Bhopal, India. (Presented & Accepted for Publishing)**
- **Kulshrestha, D., Chaudhary, V., (2024). Enhancing Electrical Fault Detection in Transmission Lines through Machine Learning. Presented at 3rd IEEE International Conference on Electrical Power and Energy Systems (ICEPES-2024), MANIT, Bhopal, India. (Presented & Accepted for Publishing)**

## **PHD AWARDED**

- **Dr. Sulochana Wadhvani & Dr Arun Kumar Wadhvani supervised the PhD thesis of Ms. Rinisha Bagaria, Ph.D. awarded on 20.05.2024 the topic Development of Diagnostic System for Bone Fractures using Image Processing Techniques from RGPV, University, Bhopal.**
- **Dr. Sulochana Wadhvani & Dr Arun Kumar Wadhvani supervised the PhD thesis of Mr. Manoj Kumar Ojha. Ph.D. awarded on 20.05.2024 the topic ECG signals Processing for Early Prediction of Abnormality of Heart Function using HRV Analysis from RGPV, University, Bhopal**

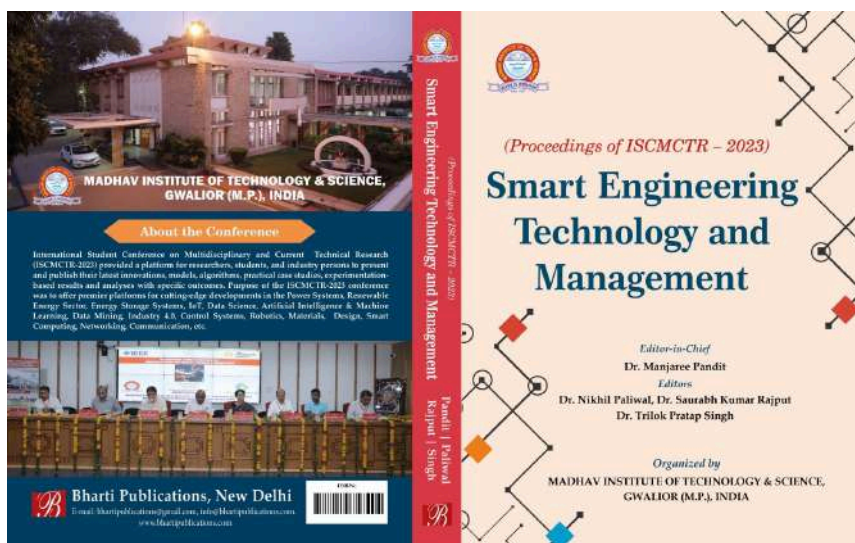
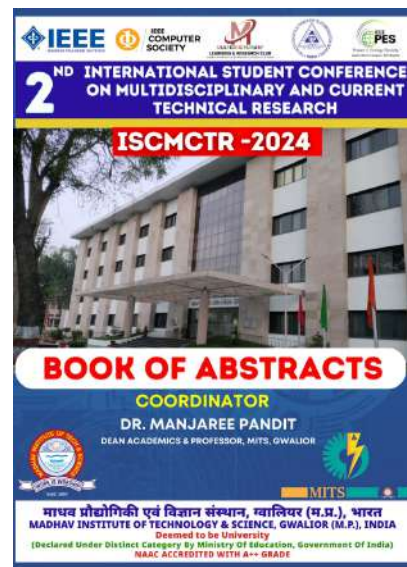


# ACTIVITIES ORGANIZED

## (WORKSHOP/CONFERENCE/FDP/STC/WEBINAR)

### ISCMCTR 2024

Madhav Institute of Technology and Science (MITS), Deemed to be University, Gwalior, MP, India, successfully organized the 2nd International Student Conference on Multidisciplinary and Current Technical Research (ISCMCTR 2024) on April 20-21, 2024. This event was organized in collaboration with the Multidisciplinary Learning & Research Club, IEEE MP Section, IEEE Computer Society, IEEE Power & Energy Society, and IETE. Dr. Manjaree Pandit, Dean of Academics at MITS, served as the conference coordinator. The conference featured the proceedings of ISCMCTR 2023, the Book of Abstracts for ISCMCTR 2024, and the launch of the MITS Journal Volume 1, Issue 1. The event included 10 technical tracks and multiple research paper presentations, providing a platform for students and researchers to showcase their work and engage with current technical research trends.



## First year



Aditya Raj Tiwari, a First Year Electrical Engineering student, participated in an internationally FIDE-rated chess tournament held in Indore from April 13 to April 14, 2024. In this competitive event, he played a total of 9 matches, achieving 4 victories, drawing 1 match, and losing 4 matches.

## Second Year

Kunal Gupta, a Second Year student, participated in the political event "Netaji Ghare Me" and also took part in the G20 quiz.



Sneha Sharma, a Second Year student, participated in the IEEE PES Day research poster competition on April 23, 2024. The event, organized by the IEEE PES Society, was a national competition themed on EV and Renewable Energy, and she secured 2nd position. Additionally, she competed in the PES Day quiz competition on April 22, 2024, organized by the IEEE PES Student Branch Chapter at Madhav Institute of Technology and Science, Gwalior, where she achieved 4th position.





# Student Participations & Achievements

Anuj Pal, a Second Year student, participated in the National Level Data Quest Competition on April 13, 2024. This data science-based national quiz competition was organized by IEEE PES. He also took part in the PES Day quiz competition on April 22, 2024, organized by the IEEE PES Student Branch Chapter.



Mohit Rajput, a Second Year student, has actively participated in a diverse range of events. He attended the Stem Workshop, part of the 39th Youth Science Congress and Science Festival, on February 21-22, 2024. On February 17, 2024, he also engaged in the sports event "Mystery of Silence," which featured fun games. His interest in technical knowledge led him to the "Tap into Wisdom Market" workshop by IETE on June 22, 2024, focused on stock market insights. In the realm of quizzes, he competed in the National Level Data Quest Competition organized by IEEE PES on April 13, 2024, and participated in the Quiztacular Quiz by IETE from May 19 to May 23, 2024. Additionally, he took part in the PES Day Quiz Competition on April 24, 2024. In cultural activities, he joined the GSSOC event about GitHub on May 7, 2024, and won 2nd prize in the "Baatein Bachpan Ki" story and shayari writing competition on April 21, 2024.



# Student Participations & Achievements

Rajeev Singh, a Second Year student at MITS Gwalior, published a research paper in May and participated in the Skyroads Gaming Club that same month. His activities highlight his engagement in both academic and extracurricular pursuits.



## Third Year



Narendra Soni participated in the ENGENIUS BEST PROJECT AWARDS 2024, a national-level competition organized by the Directorate of Admissions & Academic Outreach at Amrita Vishwa Vidyapeetham, Coimbatore. He was selected for this prestigious event, showcasing his excellence in technical projects.

Nitya Mathur received a completion certificate for a one-month internship at Arist Automation Ltd, Bhopal, from May 27, 2024, to June 27, 2024.



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