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■ MITS

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



ELEC-TECH TIMES



**ELECTRICAL ENGINEERING
DEPARTMENT**

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

- Dr Arun Kumar Wadhvani delivered Expert Lecture on Chakra Energy Measurement, Healing Science and Pandemic Duration Prediction: An Integrated Knowledge Base System with Astrological Aspects & Fuzzy Approaches, at Atal Bihari Vajpayee University, Bilaspur on 10.02.2024.
- Dr Arun Kumar Wadhvani delivered Keynote talk on Chakra Energy Measurement, Healing Science and Pandemic Duration Prediction: An Integrated Knowledge Base System with Astrological Aspects & Fuzzy Approaches, at in the International Conference on Recent Trends in Engineering, Management, Pharmacy and Science (SAGECON2K24) and SERB Granted International Symposium on Modern Technologies of Electronics, Computer and Electrical Engineering on 29th February & 1st March 2024 at Sagar Institute of Research and Technology (SIRT), Bhopal.

WORKSHOP/WEBINAR ATTENDED

- Dr. Shishir Dixit of MITS Gwalior has successfully attended Trust Models for Social IoT Networks on 06 January, 2024, organized by BVICAM, New Delhi. Sponsored by Azadi ka Amrit Mahotsav, IEEE Delhi section, IEEE Computer Society Delhi, AICTE New Delhi, CSI Delhi chapter, IITP Delhi, ISTE Delhi section, IMP Delhi.
- Dr. Shishir Dixit of MITS Gwalior has successfully attended Decentralized Systems: A Journey Through Distributed Computing on 17 February, 2024, organized by BVICAM, New Delhi. Sponsored by Azadi ka Amrit Mahotsav, IEEE Delhi section, IEEE Computer Society Delhi, AICTE New Delhi, CSI Delhi chapter, IITP Delhi, ISTE Delhi section, IMP Delhi.
- Dr. Shishir Dixit of MITS Gwalior has successfully attended Technology Trends and Revolution in Web and Mobile on 20 January, 2024, organized by BVICAM, New Delhi. Sponsored by Azadi ka Amrit Mahotsav, IEEE Delhi section, IEEE Computer Society Delhi, AICTE New Delhi, CSI Delhi chapter, IITP Delhi, ISTE Delhi section, IMP Delhi.

FACULTY ACHIEVEMENTS

- **Dr. Shishir Dixit of MITS Gwalior has successfully attended Trust Models for Social IoT Networks on 06 January 2024, organized by BVICAM, New Delhi. Sponsored by Azadi ka Amrit Mahotsav, IEEE Delhi section, IEEE Computer Society Delhi, AICTE New Delhi, CSI Delhi chapter, IITP Delhi, ISTE Delhi section, IMP Delhi.**
- **Dr. Shishir Dixit .has Successfully Completed a Two Day Faculty Development Programme titled: “Artificial Intelligence, Robotics and Internet of Things” organized by Centre for Artificial Intelligence, Madhav Institute of Technology & Science, Gwalior during November 2, 2023 to November 3, 2023.**
- **Prof. Anuj Lodhi of MITS Gwalior has successfully completed a Five days Faculty Development Programme titled: “ Role of Green Energy Towards Sustainable Smart Cities” organized by IEEE JSSATEN, held by JSS Academy of Technical Education From 13th -17th February 2024.**
- **Prof. Anuj Lodhi of MITS Gwalior has successfully attended a two-day Peer-Learning Workshop on “Laboratory Practices for Internet of Things” is organized by the Centre for Internet of Things from Jan 11th, 2024 to Jan 12th, 2024 at MITS Gwalior**
- **Prof. Poonam Singh of MITS Gwalior has successfully attended a one-week Peer Learning Training Program on “Artificial Intelligence and Machine Learning – Basics” organized by Centre for Artificial Intelligence from 8th January, 2024 to 12th January, 2024 at MITS Gwalior.**
- **Prof. Poonam Singh of MITS Gwalior has successfully attended a two-day Peer-Learning Workshop on “Laboratory Practices for Internet of Things” is organized by the Centre for Internet of Things from Jan 11th, 2024 to Jan 12th, 2024 at MITS Gwalior**
- **Prof. Poonam Singh of MITS Gwalior has successfully attended a one-week Peer Learning Training Program on "Python Programming", which is to be jointly organized by Centre for Internet of Things and Dept. of Electrical Engineering from Jan 15, 2024 to Jan 19, 2024. MITS, Gwalior.**
- **Er. Yogeshwar Dayal Jaital of MITS Gwalior has successfully attended a one-day workshop on “Virtual Labs” which is to be jointly organized by Centre for Internet of Things and Dept. of Electrical Engineering, MITS, Gwalior. on February 2, 2024, in collaboration with IIT Delhi**

PUBLICATIONS

(JOURNALS, CONFERENCES & BOOK CHAPTER)

- Arun Kumar Wadhvani, Development of Knowledge Base System using Astrological Aspects, Distance Measure & Fuzzy-Neural Network for Prediction on Parliament Election Results-2024, International Journal of Jyotish Research: 2024; 9(1): pp-14-24, ISSN: 2456-4427 Impact Factor: RJIF: 5.11, www.jyotishajournal.com.
- A Comparative Assessment of Unsupervised and Supervised Methodologies for LANDSAT 8 Satellite Image Classification, K. Sharma, R. Tiwari, S. Chaturvedi & A.K.Wadhvani, International Conference Innovation in Smart and Sustainable Infrastructure , ISIS, 2022, PP-31-40, Springer, LNCE, Volume 364.
- K. Sharma, R. Tiwari, S. Chaturvedi & A.K.Wadhvani, Spatiotemporal Analysis of land surface temperature trends in Nasik, India: A 30-years study from 19992 to 2022, Vol No: 10.1007/\$12145-024-01260-3, Earth Science Informatics (Q2)
- Dr. Shishir Dixit, Kumar Tatikayala, V. “Multi-stage voltage control in high photovoltaic based distributed generation Penetrated Distribution System considering smart inverter reactive power capability,” Ain Shams Engineering Journal, p. 102265. Available at: <https://doi.org/10.1016/j.asej.2023.102265>., Q1 Journal (SCIE)
- Dr. Shishir Dixit, A. Saxena, “Metaphor-Less Rao-3 & Artificial Neural Network and Parallel Computing based Wheeling Pricing in Competitive PowerMarket Cogent Engineering accepted for publication in Cogent Engineering on Apr 03, 2024.Q2 Journal (SCI) (ESCI)
- Dr. Shishir Dixit & Vinay Kumar Tatikayala (2024) Optimal allocation of open unified power quality conditioner in integrated distribution system environment with renewable energy sources, International Journal of Green Energy, DOI: 10.1080/15435075.2023.2297775 Q2 Journal (SCI)
- Dr.Shishir Dixit & Bansal, P. et al. (2024) ‘A robust modified notch filter based SOGI-PLL approach to control multilevel inverter under distorted grid’, Ain Shams Engineering Journal, 15(5), p. 102675. doi:10.1016/j.asej.2024.102675. Q1 Journal (SCIE)

PUBLICATIONS

(JOURNALS, CONFERENCES & BOOK CHAPTER)

- Dr.Shishir Dixit & Bansal, P. et al. (2024) 'A robust modified notch filter based SOGI-PLL approach to control multilevel inverter under distorted grid', Ain Shams Engineering Journal, 15(5), p. 102675. doi:10.1016/j.asej.2024.102675. Q1 Journal (SCIE)
- S. Dixit, A. Saxena,& S. N. Pandey ; Wheeling Pricing Calculation and Allocation using Deep Reinforcement Learning (DRL) Approach; 2024 IEEE 12th International Conference on Communication Systems and Network Technologies (CSNT), Jabalpur, India, 2024 (Accepted in Scopus indexed Conference)
- Deepansh kulshrestha , Aashi singh Bhadouria, Hemlata arya, Bulbul Agrawal (2024) 'Interrogating Predictive Models to Augment Student Mental Well-Being Through Machine Learning: An In-Depth Exploratory Expedition' In: Pandit, M., Gaur, M.K., Kumar, S. (eds) Artificial Intelligence and Sustainable Computing. ICSISCET 2023. Algorithms for Intelligent Systems. Springer, Singapore. https://doi.org/10.1007/978-981-97-0327-2_47
- Deepansh Kulshrestha, Dr.Saurabh Kumar Rajput, Dr. Nikhil Paliwal, Dr. Manjaree Pandit ; Machine Learning based Prediction of PV Power Generation in Composite Climate Presented at International Conference on Sustainable Power and Energy Research (ICSPER -2024) , NIT, warangal (Springer Scopus Indexed Conference)
- Deepansh Kulshrestha, Aditi Singh, Riddhima Chaturvedi , Abhinav Tiwari , Mohit Garg, Radhika yadav ; Enhancing Diabetes Management: A Machine Learning-Enabled IoT Framework for Early Detection ; 3rd IEEE International Conference on "Electrical Power and Energy Systems" (ICEPES-2024), MANIT, Bhopal, India, 2024 (Accepted)
- Prof. Vishal Chaudhary & Deepansh Kulshrestha ; Enhancing Electrical Fault Detection in Transmission Lines through Machine Learning ; 3rd IEEE International Conference on "Electrical Power and Energy Systems" (ICEPES-2024), MANIT, Bhopal, India, 2024 (Accepted)

PATENTS PUBLISHED

- **Dr. Shishir Dixit “Ein integriertes System für Echtzeit- Computing- und Stromverwaltung (An integrated system for real-time computing and power management) German Patent Application no: 202024100259, 18.01.2024, 27.02.2024 (Granted)**
- **Shyam Babu, Manoj Kumar Bandil, Dr. Arun Kumar Wadhvani ,Dr. Sulochana Wadhvani “Portable Medical Instrument For Measuring Physiological Signals” India, Design No 388987-001, 24.06.2023, 11.01.2024 (Granted)**
- **Dr. Arun Kumar Wadhvani, Dr. Sulochana Wadhvani, Ms. Alka Thakur, Dr. Shiv Kumar Verma , Dr. Manoj Kumar Rawat , Mr. Vilas Ramesh Patil, Ms. Shobha Kumari, “A Smart Grid Connected Inverter Device”, UK Patent, Design number: 6343236, Grant date: 06 February 2024, Registration date: 30 January 2024**

PHD AWARDED

- **Dr Arun Kumar Wadhvani supervised the PhD thesis of Mr. Manoj Bandil, Ph.D. awarded on 19.01.2024 the topic Multi-Resolution Epileptic Classification of Electroencephalogram using Hybrid Soft Computing Techniques from RGPV, University.**

EDITORIAL BOARD



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