Madhav Institute of Technology & Science, Gwalior

(A Govt. Aided UGC Autonomous Institute & NAAC Accredited Institute Affiliated to R.G.P.V., Bhopal MP)

Electrical Engineering Department NEWSLETTER

Vol. 08 No. 01

January-March 2023

Department of Electrical Engineering is one of the oldest departments established in 1957 with an intake of 40. Currently, the department is offering undergraduate, postgraduate, and doctorate programs in various disciplines of Electrical Engineering. Presently the total intake of the B.Tech. program is 120 and the M.E. in "Industrial Systems & Drives" program is with the intake of 25. A new B.Tech. program in "Internet of Things", with an intake of 60 has been started in 2020 by the department. The thrust areas of the department are Power System, Power Electronics, Control and Biomedical Instrumentation. The department offers ME and Ph.D programs to produce the quality research. It has state of the art laboratories to provide hands-on experiences and support research activities.

The department educates the students to take up challenging jobs in a wide range of industries and engage themselves in research & development activities for the betterment of the society. The syllabi of the courses are continuously updating and the laboratories are modernized to reflect the rapid changes in technology.

The courses offered by the department cater to learning needs from basics to the advanced level. In addition, the department offers a variety of discipline electives to cover the modern technologies.



FACULTY Talk delivered outside the Institute

- Dr. Murli Manohar, Assistant Professor, *Department of Electrical Engineering (IoT)*, delivered a keynote lecture on "Reference Management Using Mendeley" in the one-week Faculty Development Program (FDP) on "Research Methodology & How to Write a Good Scientific Research Paper" organised by Bansal Institute of Science and Technology, Bhopal on 14th Jan. 2023.
- Dr. Murli Manohar, Assistant Professor, *Department of Electrical Engineering (IoT)*, delivered a one-week online expert session on "E-Vehicle Repair and Maintenance" organised by SAGE Winter School, Bhopal during 16th Jan. 2023 to 20th Jan. 2023.
- Dr. Murli Manohar, Assistant Professor, *Department of Electrical Engineering (IoT)*, delivered an online expert lecture on "Integration Issues and Protection Challenges in Microgrid" in 2-Day Short-term Faculty Development Program (FDP) on "Recent Trends in Power Electronics and their Applications in Power Systems" organised by Department of Electrical & Electronics Engineering at School of Engineering and Technology, Sandip University, Nashik on 24th and 25th March, 2023.

Patent File

- Dr. Shishir Dixit published, Granted (Design Patent), "Safety Jacket Integrated With Safety Belt Based On Artificial Intelligence", Intellectual Property, India, Publication Date 13/01/2023, Patents Application No.: 372911-001
- Dr. Murli Manohar, Assistant Professor, *Department of Electrical Engineering (IoT)* published, Granted (Design Patent), titled "Electric Vehicle Battery with Swapping Mechanism", Intellectual Property, India, Publication Date 14/04/2023, Patents Application No.: 369081-001.

FACULTY & STAFF

TRAINING PROGRAMME/ FDP ATTENDED

- Dr. Murli Manohar, Assistant Professor, Department of Electrical Engineering (IoT) successfully completed the 4-week NPTEL course on "Electric Vehicles Part-1" in March 2023 with Elite certificate.
- Dr. Murli Manohar, Assistant Professor, Department of Electrical Engineering (IoT) successfully completed the 8-week NPTEL course on "Introduction to Soft Computing" in March 2023 with Elite+Silver certificate.

FACULTY & STAFF WORKSHOP/WEBINAR ATTENDED

- Dr. Shishir Dixit successfully attended Webinar on AI in Electrical Power Systems on 07 January, 2023, organized by BVICAM, New Delhi.
- Dr. Shishir Dixit successfully attended Webinar on Robotics Process Automation on 21 January, 2023, organized by BVICAM, New Delhi.
- Dr. Shishir Dixit successfully attended Webinar on User Experience Considerations for Building Modern Apps on 04 February, 2023, organized by BVICAM, New Delhi.
- Dr. Shishir Dixit successfully attended Webinar on Changing Role of HR Heads for Gen Z and Millennials on 11 February, 2023, organized by BVICAM, New Delhi
- Dr. Shishir Dixit successfully attended Webinar on Cloud Computing: Digital Transformation on 25 February, 2023, organized by BVICAM, New Delhi.
- Dr. Shishir Dixit successfully attended Webinar on IT Disaster Recovery Breaking Myths for Resilience on 11 March, 2023, organized by BVICAM, New Delhi.
- Dr. Shishir Dixit successfully attended Webinar on Citations and Reference Management through Mendeley on 25 March, 2023, organized by BVICAM, New Delhi.
- Dr. Shishir Dixit successfully attended Webinar on Start-ups: How to Make it Resilient? on 08 April, 2023, organized by BVICAM, New Delhi.
- Dr. Shishir Dixit successfully attended Webinar on Chaos Engineering on 15 April, 2023, organized by BVICAM, New Delhi.
- Dr. Himmat Singh successfully attended Webinar on AI in Electrical Power Systems on 07 January 2023, organized by BVICAM, New Delhi.
- Dr. Himmat Singh successfully attended Webinar on Robotics Process Automation on 21 January, 2023, organized by BVICAM, New Delhi.

Publications

EED, MITS Gwalior publications in renowned Journals and Conferences. Details of these are as follows:

- Rinisha Bagaria, Sulochana Wadhwani, A. K. Wadhwani, "An Image Segmentation for Different Medical Image Modalities using Wavelet Transform Technique", International Journal of Scientific Research in Science and Technology (IJSRST), Online ISSN : 2395-602X, Print ISSN : 2395-6011, Volume 10 Issue 1, pp. 292-307, January-February 2023. Available at doi : <u>https://doi.org/10.32628/IJSRST2310134</u>
- Dr. Shishir Dixit Presented a research paper in 12th IEEE International Conference CSNT-2023 held at Technocrats Institute of Technology (Excellence) Bhopal, Madhya Pradesh (India), on 9th Apr-2023, Paper Title: Bacterial Foraging Particle Swarm Optimization Based Wheeling Pricing Allocation Through AFmile and RF-Mile Approach
- 3. Dr. Shishir Dixit Presented a research paper in 12th IEEE International Conference CSNT-2023 held at Technocrats Institute of Technology (Excellence) Bhopal, Madhya Pradesh

(India), on 9th Apr-2023, Paper Title: TS Fuzzy controller for power quality improvement in grid-connected PV and wind systems

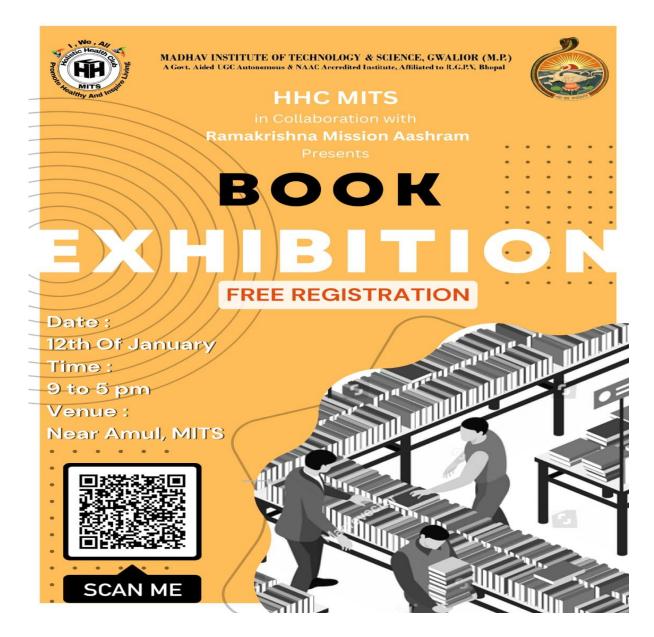
- 4. Dr. Shishir Dixit, Singh, H. et al. (2023) "Optimization of reactive power using Dragonfly algorithm in DG Integrated Distribution System," Electric Power Systems Research, 220, p. 109351. Available at: <u>https://doi.org/10.1016/j.epsr.2023.109351</u>., Q1 Journal
- 5. Dr. Shishir Dixit, Kumar Tatikayala, V. (2023) "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: <u>https://doi.org/10.1016/j.asej.2023.102265.</u>,Q1 Journal
- Dr. Shishir Dixit, Kumar Tatikayala, V., Dr. Yashwant Sawle Integrated Energy Management System for Microgrid based on Renewable Energy Sources, International Journal of Electrical and Electronics Research (IJEER), Volume 11, Issue 2 | Pages 11 | e-ISSN: 2347-470X. (Scopus Journal)
- Dr.Himmat Singh, et al. (2023) "Optimization of reactive power using Dragonfly algorithm in DG Integrated Distribution System," Electric Power Systems Research, 220, p. 109351. (SCI IF 3.414) Available at: https://doi.org/10.1016/j.epsr.2023.109351., Under Q1 Journal Ranking category.
- 8. Dr. Murli Manohar published a research paper titled "A Combined S-transform and Ensemble of DT based Protection scheme for six-phase transmission line" in an IEEE International Conference on Power Electronics and Energy (ICPEE), jointly organized by School of Electrical Engineering, KIIT Deemed to be University, Bhubaneswar and IEEE Bhubaneswar Sub Section, Odisha, during 03-05 Jan. 2023.
- Dr. Yashwant Sawle, Singh, H. et al. (2023) "Optimization of reactive power using Dragonfly algorithm in DG Integrated Distribution System," Electric Power Systems Research, 220, p. 109351. (SCI IF 3.414) Available at: https://doi.org/10.1016/j.epsr.2023.109351., Under Q1 Journal Ranking category.
- Dr. Yashwant Sawle, et al.. "A comprehensive review on optimization of hybrid renewable energy systems using various optimization techniques." Renewable and Sustainable Energy Reviews 176 (2023): 113192. (SCI IF 16.8), https://doi.org/10.1016/j.rser.2023.113192, Under Q1 Journal Ranking category.
- Dr. Yashwant Sawle, et al., Integrated Energy Management System for Microgrid based on Renewable Energy Sources, International Journal of Electrical and Electronics Research (IJEER), Volume 11, Issue 2 | Pages 11 | e-ISSN: 2347-470X. (Scopus Journal)

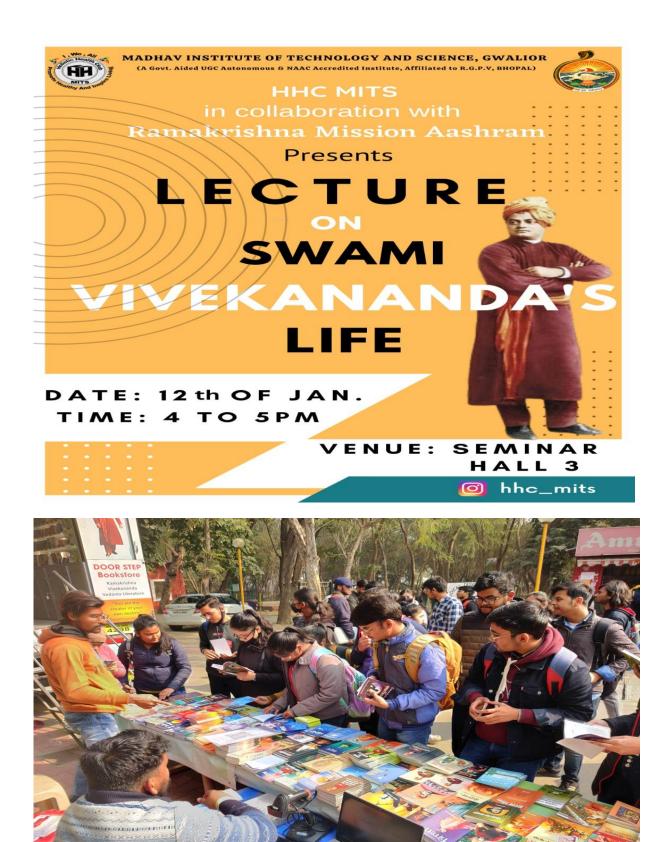
ACTIVITIES ORGANIZED (WORKSHOP/CONFERENCE/FDP/STC/WEBINAR) at INSTITUTE LEVEL

• Electrical Engineering Department and IEEE student section of MITS organized National Level online quiz competitions on the Occasion of **MITS Day** on 06 March 2023.



• Holistic Health Club MITS in collaboration with Ramakrishna mission Aashram, Gwalior Organized Book exhibition for students and staff on **12/01/2023** in Madhav Institute of Technology & Science.

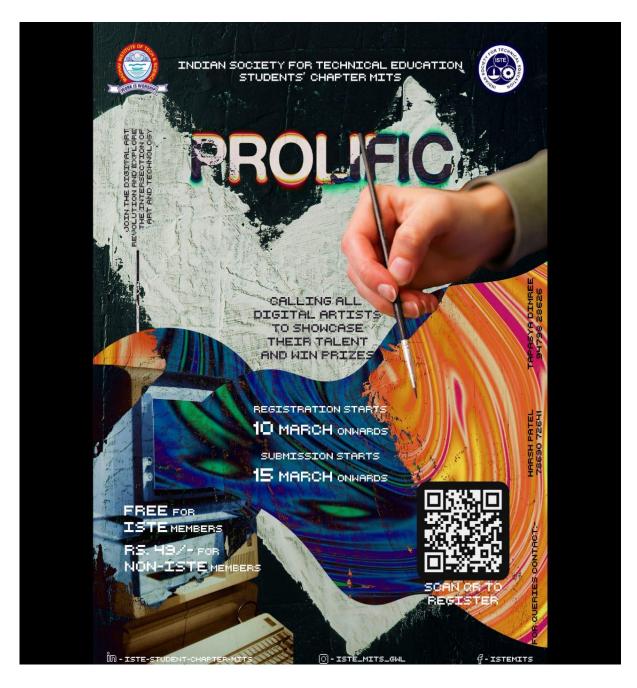




• Holistic Health Club MITS Organized a seminar on "Uninstalling Anxiety" by Dr. Sapna Kumari for students and staff on 24/03/2023 in Madhav Institute of Technology & Science.



• ISTE Students' Chapter organized PROLIFIC from 13th to 17th March 2023 in Madhav Institute of Technology & Science.



Student Participations & Achievements

First Year :

• Aman Sharma got recognition of excellent initiatives from ArIES IIT ROORKEE on date 23-02-2023.



Second Year:

• Utkarsh Gupta participated in national level online quiz competitions on the Occasion of MITS Day.



Third Year :

- Rahul sharma, Yashwant sawle, "Economic Analysis of Renewable energy systems for ruralelectrification" in 2nd International Conference on "Renewable Power (ICRP-2023)", 28th - 29th March, 2023. (Accepted)
- Ishan bhadoriya et. al, under guidance of Dr Bhavna Rathore, Dr yashwant sawle et. al, minor project got prize in competition held in Bhopal.
- Niharika mittal, et. al, guidance of Dr Bhavna Rathore, Dr yashwant sawle got recognized by MITS institute win case price and certificate .
- Akshata chitnis, et. al, guidance of Dr Bhavna Rathore, Dr yashwant sawle got recognized by MITS institute, win case price and certificate .

Final Year

- Nikita Yadav, Rahul sharma, Yashwant sawle, Economic Analysis of Renewable energy systems for ruralelectrification" in 2nd International Conference on "Renewable Power (ICRP-2023)", 28th 29th March, 2023. (*Accepted*)
- Nikita Yadav, Yashwant sawle, Evaluating the technical and economic feasibility of a hybrid renewable energy system for off-grid ,Journal of Autonomous Intelligence (Scopus Accepted).

Any other point

- Dr. Shishir Dixit, Reviewer for 4th International Conference on Information Technology, Advanced Mechanical and Electrical Engineering (ICITAMEE 2023) Universitas Muhammadiyah Yogyakarta, Indonesia
- Dr. Shishir Dixit, Reviewer for 3rd International Conference on Electronic and Electrical Engineering and Intelligent System (ICE3IS 2023) Universitas Muhammadiyah Yogyakarta, Indonesia
- Dr. Shishir Dixit, Reviewer for the 2023 International Workshop on Artificial Intelligence and Image Processing (IWAIIP), Universitas Muhammadiyah Yogyakarta, Indonesia
- Dr. Shishir Dixit, Session chair and TPC member, also Reviewer for the 12th International Conference on Communication Systems And Network Technologies (CSNT-2023), organized IEEE Madhya Pradesh Section and Hosted By TIT (Excellence) Bhopal And MIR Labs, Gwalior.
- Dr. Shishir Dixit, Reviewer for the IEEE Access Journal
- Dr. Yashwant Sawle, Reviewer around 12 renowned SCI journal 3 Conferance paper.
- Dr. Yashwant Sawle, Appointed as Secetary IEEE PES chapter MP section
- Dr. Yashwant Sawle, Dr Manjaree pandit, sucsessfully conducted special issue in Electronics MDPI Journal.
- Dr. Yashwant Sawle, Dr Manjaree pandit, et al., sucsessfully conducted special issue in Forntires energy research Journal.
- Dr. Yashwant Sawle, Published three papers with international collaboration and interdisciplinary discipline.