

***Madhav Institute of Technology & Science, Gwalior***  
***Electrical Engineering Department***  
***(NBA Accredited)***  
**NEWSLETTER**

*Vol. 07 No. 02*

*April-June 2022*



*Department of Electrical Engineering is one of the oldest departments established in 1957 at MITS campus. The department is dedicated to the teaching and research activities in the areas of Electrical, Electronics, Instrumentation & Control Engineering. The department educates the students to take up challenging jobs in a wide range of industries and engage themselves in research and development activities for the good of society. The syllabi of the courses are continuously updated and the laboratories modernized to reflect the rapid changes in technology. It also offers high quality research in the (ME and Ph.D.) Programs. Courses offered by the department cater to learning needs from basics to the advanced level. Department offers variety of discipline electives and covers most of the modern technologies. It has state of the art laboratories to provide hands on experiences and support research activities.*

**Vision**

**“To prepare professionally competent and ethical Electrical Engineers for global and social technological demands”**

**Mission**

- Impart state-of-the-art education to produce globally competent electrical engineers.
- Engage in cutting-edge research & sustainable technologies for overall development of students and society in an ethical manner.
- Identify latest areas of specialization based on an informed perception of regional, national and global needs.
- Undertake collaborative projects which offer opportunities for long term interaction with academia & industry.

**Programme Educational Objectives (PEOs)**

**PEO-I - Graduates of the programme will have successful technical and professional careers.**

**PEO-II - Graduates of the programme will continue to learn and adapt in a world of constantly evolving technology.**

**PEO-III- Graduates of the programme will be able to apply, analyze, design and create products and solutions for real life Electrical Engineering problems.**

**PEO-IV- Graduates of the programme will be able to manage projects catering to current societal and industrial needs in an ethical manner working as members/leaders of multidisciplinary teams.**

## FACULTY

### TRAINING PROGRAMME/ FDP ATTENDED

- **Dr. Yashwant Sawle**, Successfully attended, Two week Short Term Training Program on ‘Optimization-Tools and Techniques for Solving Real-World Problems in the field of Electrical Engineering’ 06th to 18th June 2022 sponsored by IIT Bombay.
- **Dr. Yashwant Sawle**, Two Day Virtual Academia – Industry Conclave on “Recent Trends in Smart Power Systems” organised by the School of Electrical Engineering (SELECT), Vellore Institute of Technology - Vellore, during 23rd – 24th, June, 2022.

## FACULTY & STAFF

### WORKSHOP/WEBINAR ATTENDED

- **Dr. Yashwant Sawle**, One week workshop Design, Test and validate, Power Electronics, E-mobility, Renewables, Microgrid using Typhoon HIL” schedule during Jun 27, 2022 to July 02, 2022 organize by NIT Delhi.
- **Dr. Shishir Dixit**, Successfully attended Webinar on “Cyber Warfare, Cyber Security and Cyber Citizens Cyber Assurance: Key to Sustainability for 21st Century Organizations” on 09 April, 2022, Organized by BVICAM, New Delhi in collaboration with IEEE Advancing technology for humans Delhi section, IEEE computer society Delhi section, AICTE, New Delhi.
- **Dr. Shishir Dixit**, Successfully attended Webinar on Elements of New 5G Radio Access Networks: Open, Cloud Native & Intelligent on 16 April, 2022, Organized by BVICAM, New Delhi in collaboration with IEEE Advancing technology for humans Delhi section, IEEE computer society Delhi section, AICTE, New Delhi.
- **Dr. Shishir Dixit**, Successfully attended Webinar on Copyrights: What, Why and How (Live Vodcast) on 30 April, 2022, Organized by BVICAM, New Delhi in collaboration with IEEE Advancing technology for humans Delhi section, IEEE computer society Delhi section, AICTE, New Delhi.
- **Dr. Shishir Dixit**, Successfully attended Webinar on Cyber Warfare, Cyber Security and Cyber Citizenship on 09 April, 2022, Organized by BVICAM, New Delhi in collaboration with IEEE Advancing technology for humans Delhi section, IEEE computer society Delhi section, AICTE, New Delhi.
- **Dr. Shishir Dixit**, Successfully participated in Expert Talk on “How to Write and File Patent” Organized by IQAC and Department of Electrical Engineering, MITS, Gwalior, MP, India on April 29, 2022
- **Dr. Shishir Dixit**, Successfully attended Webinar on Artificial Intelligence (AI) and Media on 28 May, 2022, Organized by BVICAM, New Delhi in collaboration with IEEE Advancing technology for humans Delhi section, IEEE computer society Delhi section, AICTE, New Delhi.
- **Dr. Shishir Dixit**, Successfully attended Webinar on Research in Digital Age: Problems and Opportunities on 07 May, 2022, Organized by BVICAM, New Delhi in collaboration with IEEE

Advancing technology for humans Delhi section, IEEE computer society Delhi section, AICTE, New Delhi.

- **Dr. Shishir Dixit**, Successfully attended Webinar e-Science & e-Research: Practices & Potentials for Science & Research in Digital Age on 14 May, 2022, Organized by BVICAM, New Delhi in collaboration with IEEE Advancing technology for humans Delhi section, IEEE computer society Delhi section, AICTE, New Delhi.
- **Dr. Shishir Dixit**, Successfully attended Webinar on Zero UnEmployment: through Employability Enhancement of the Youth - Live in conversation on 21 May, 2022, Organized by BVICAM, New Delhi in collaboration with IEEE Advancing technology for humans Delhi section, IEEE computer society Delhi section, AICTE, New Delhi.
- **Dr. Shishir Dixit**, Successfully attended Webinar on “The Metaverse: A Common Man's View” on 18 June, 2022, Organized by BVICAM, New Delhi in collaboration with IEEE Advancing technology for humans Delhi section, IEEE computer society Delhi section, AICTE, New Delhi.
- **Dr. Himmat Singh**, Successfully attended Webinar on Artificial Intelligence (AI) and Media on 28 May, 2022, Organized by BVICAM, New Delhi in collaboration with IEEE Advancing technology for humans Delhi section, IEEE computer society Delhi section, AICTE, New Delhi.
- **Dr. Himmat Singh**, Successfully attended Webinar on Research in Digital Age: Problems and Opportunities on 07 May, 2022, Organized by BVICAM, New Delhi in collaboration with IEEE Advancing technology for humans Delhi section, IEEE computer society Delhi section, AICTE, New Delhi.
- **Yogeshwar Dayal Jaital**, Successfully participated in Expert Talk on “How to Write and File Patent” Organized by IQAC and Department of Electrical Engineering, MITS, Gwalior, MP, India on April 29, 2022.
- **Yogeshwar Dayal Jaital**, Successfully participated in National Workshop/Seminar on “Measurement Uncertainty Calculations” Organized by Regional Reference Standard Laboratory, Ahmedabad & Department of Electrical Engineering, MITS, Gwalior, MP on 3th May 2022.
- **Yogeshwar Dayal Jaital**, Successfully attended in Training of Online Leave Component of IMS through Google Meet Organized by Department of HR/ Deputy Registrar, MITS, Gwalior, MP, India on 9th May 2022
- **Yogeshwar Dayal Jaital**, Successfully participated in National Workshop/ Awareness on “ISO 15189:2012 for Medical Labs with Traceability, Measurement Uncertainty & Legal Metrology” Organized by Regional Reference Standard Laboratory, Ahmedabad & Department of Electrical Engineering, MITS, Gwalior on 14-16th May 2022.

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

- **Dr. Yashwant Sawle**, Organised National level online one week FDP on "Renewable Energy Sources Integration into the Power System" MITS Gwalior, 22.06.2022.
- **Dr. Shishir Dixit**, Successfully Conducted/ participated One Day Virtual Visit and Online Workshop On "FACILITIES AND OPPORTUNITIES: INTERNSHIP AT NPTI, SHIVPURI", on 22.01.2022 (01 Day), Organised by Madhav Institute of Technology and Science, Gwalior, M.P.
- **Dr. Shishir Dixit**, Successfully Conducted/ participated One Day Online Workshop On "COVID AND ITS VARIANTS: SYMPTOM, PREVENTION AND CURE" 19.02.2022 (01 Day), Organised by Madhav Institute of Technology and Science, Gwalior, M.P.
- **Dr. Shishir Dixit**, Successfully Conducted/ participated One Day Online National Workshop on "Consumer Awareness: जागो ग्राहक जागो", 26.02.2022 (01 Day), Organised by Madhav Institute of Technology and Science, Gwalior, M.P.
- **Vishal Chaudhary** organized a Yoga session for faculty, staff & students 21.06.2022 International Yoga Day.
- **Dr. Vikram**, Organised National level online one week FDP on "Renewable Energy Sources Integration into the Power System" MITS Gwalior, 22.06.2022.

### Patent File

- **Dr. Shishir Dixit, Patents: Published: 02, Applied:01**

S. No.	Title of the Patent	Name of the organization	Patents Filling Date	Publication Date	Patents Application No.	Status
1.	An AI Based System to Detect Person and Their Activity in Low Illuminated Space and Method Thereof	Intellectual Property, India	08/02/2022	08/04/2022	202221006680	Published
2.	Cup	Intellectual Property, India	08/02/2022	06/04/2022	358114-001	Published

3.	Microbial Fuel Cell Based on Plants for Electricity Generation	Intellectual Property, India	16/06/2021		344797-001	Applied
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## Publications

### EED, MITS Gwalior publications in renowned Journals and Conferences.

#### Details of these are as follows:

1. Dr. Sumant Kadwane, **Dr Yashwant Sawle**, Dr Chandra Kumar Dixit, Dr C. Uday Sankar Publish Book as Author “Fundamentals of Electrical Drives :Theories and Applications”
2. Siddharth Jain, Aboli Kulkarni, and **Dr Yashwant Sawle**, Publish Book Chapter “Overview of Energy Management Systems for Microgrids and Smart Grid ” [https://doi.org/10.1007/978-981-19-0979-5\\_4](https://doi.org/10.1007/978-981-19-0979-5_4)
3. Devendra Pathak, Vijay Bhuria (June 2022) A case study on saturation of core of R phase unit of three phase bank of 765/400/33KV,1500MVA Transformer at 765KV transmission substation, International Journal of Research in Engineering and Science (IJRES), Volume 10 Issue 6, 2022 PP. 1074-1078 ISSN (Online): 2320-9364
4. Devendra Pathak, Vijay Bhuria ( June 2022) Analysis of onsite failure of perma-wood ring of three-phase auto transformer at 400kv transmission substation, International journal of scientific research, Vol.-11, Issue-06, June-2022, pp 1-3, ISSN No. 2277 – 8179, DOI: 10.36106/ijrsr.
5. **Saurabh Kumar Rajput** & Dharmendra Kumar Dheer “Integration of 100-kWp PV with low-voltage distribution power system in composite climate: performance and energy metrics analysis”, International Journal of Ambient Energy- Taylor and Francis, DOI: 10.1080/01430750.2022.2092775 URL <https://doi.org/10.1080/01430750.2022.2092775> (June 2022)
6. **Saurabh Kumar Rajput** & Dharmendra Kumar Dheer “Impact of Solar Intensity on PV Generated Current Harmonics and Transformer Life: A Mathematical Model With Experimental Validation”, Journal of Solar Energy Engineering- Transaction of ASME (Accepted for publication, June 2022).
7. **Saurabh Kumar Rajput**, Ankit Kumar Tripathi and **Manjaree Pandit**, “Energy-Metrics Analysis of 2 kWp Rooftop PV system located in Gwalior India” 3rd Electric Power and

renewable Energy Conference (EPREC 2022), National Institute of Technology Jamshedpur, India, May, 2022.

8. Sonu Kumar Roy, **Saurabh Kumar Rajput**, Rahul Prakash, and Dharmendra Kumar Dheer, “Performance and energy metrics analysis of stand alone rooftop PV plant”, IEEE International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET)”, National Institute of Technology Patna, India, June -2022.

## Student Participations & Achievements

### First Year (EED): Skill based project, EE-IoT sensor technology

- Nakul Jha of team CrazeMaze won the first prize in Avriti Tech fest 2022 organized by Asimov Robotics club MITS Gwalior.

### Second Year (EED):

- Three Students Participated in the webinar on TECHSUMMER "22" organized by IETE STUDENT FORUM MITS on June 12, 2022.

### Third Year (EED):

- Saurabh Kumar Rajput, **Ankit Kumar Tripathi** and Manjaree Pandit, “Energy-Metrics Analysis of 2 kWp Rooftop PV system located in Gwalior India” 3rd Electric Power and renewable Energy Conference (EPREC 2022), National Institute of Technology Jamshedpur, India, May, 2022.
- Three Students Paerticipated in Fusion 360 Robotics workshop organized by MITS Gwalior on 29th - 30th May 2022.

### Final Year (EED):

- Three Students Paerticipated in Fusion 360 Robotics workshop organized by MITS Gwalior on 29th - 30th May 2022.
- RISHABH RAJODIYA have participated in Machine Learning to Deep Learning: A Journey for Remote Sensing Data Classification orgnized by Indian Institute of Remote Sensing, Dehradun on 04-07-2022 to 08-07-2022.

## Award Received/ Achievements

- **Saurabh Kumar Rajput** is awarded the best paper in 3rd Electric Power and renewable Energy Conference (EPREC 2022), National Institute of Technology Jamshedpur, India (May, 2022) in recognition of his paper titled “Energy-Metrics Analysis of 2 kWp Rooftop PV system located in Gwalior India (paper ID-218)”.



- **Dr. Shishir Dixit**, Session Chair for 11<sup>th</sup> IEEE Communication Systems and Network Technologies (CSNT 2022) during 23-24 April, 2022
- **Dr. Shishir Dixit**, Successfully completed SWYAM NPTEL online certificate 12-week course, on “Non-Conventional Energy Resources”. (Elite) January-April 2022, (12-week) Conducted by IIT Madras
- **Dr. Shishir Dixit** Reviewer for International Conference on Electronic and Electrical Engineering and Intelligent System, ICE3IS 2022, Bantul Yogyakarta, June 2022.
- **Dr. Shishir Dixit**, Reviewer for International Journal of Computing and Digital Systems, IJCDS. (A Peer Reviewed Journal) June 2022.
- **Dr. Shishir Dixit**, Reviewer for 1st International Conference on Information System and Information Technology 2022 Universitas Mercu Buanak, Yogyakarta. July 2022.
- **Saurabh Kumar Rajput** , Reviewer in Journal of Textile and leather review.
- **Nikhil Paliwal**, Successfully completed SWAYAM NPTEL online certificate 12-week course on “Non-Conventional Energy Resources”. (Elite) January-April 2022, (12-week) Conducted by IIT Madras.
- **Nikhil Paliwal**, Reviewer in Journal of Engineering, an open access journal, published by the IET and Wiley.
- **Dr. Vikram**, Successfully completed SWAYAM NPTEL online certificate 12-week course on “Control Engineering”. (Elite) January-April 2022, (12-week) Conducted by IIT Madras.
- **Dr. Vikram**, Successfully completed SWAYAM NPTEL online certificate 12-week course on “Fuzzy Logic and Neural Networks”. (Elite) January-April 2022, (12-week) Conducted by IIT Kharagpur.
- **Dr. Vikram**, Successfully completed SWAYAM NPTEL online certificate 08-week course on “Machine Learning, ML”. (Elite) January-April 2022, (12-week) Conducted by IIT Madras.
- **Vishal Chaudhary** received the Outstanding Young Person Award 2022 on 18 April 2022 by JCI Gwalior.

### Any other point

- **Dr Manjaree Pandit, Associate Editor**, Call for special issue in frontier energy review SCI Journal.
- **Dr Yashwant Sawle, Associate Editor**, Call for special issue in frontier energy review SCI Journal.
- **Dr Yashwant Sawle**, Editor in frontier energy review solar energy.
- **Dr Yashwant Sawle**, Editor in frontier energy review smart grid.
- **Dr Yashwant Sawle**, Academic editor in Hindawi Journal
- **Dr Yashwant Sawle**, delivered an expert lecture on “Scrutiny of a standalone hybrid system for electrification of remote location” in National level online FDP on "Renewable Energy Sources Integration into the Power System" MITS gwalior, 22.06.2022.
- **Saurabh Kumar Rajput** delivered an expert lecture on “Impact of PV on transformer operation” in the National level One Week Online FDP on "Renewable Energy Sources Integration into the Power System" MITS Gwalior, 26.06.2022.

- **Nikhil Paliwal**, delivered an expert lecture on “Impact of Integration of Renewable Energy Sources and Energy Storage Systems on Load Frequency Regulation” in the National level One Week Online FDP on "Renewable Energy Sources Integration into the Power System" MITS Gwalior, 26.06.2022.

## Glimpse



**International Yoga Day 2022**



**International Yoga Day 2022**





**Outstanding Young Person Award 2022**



**Outstanding Young Person Award 2022**

## Students Achievements :







## CERTIFICATE OF PARTICIPATION IN ONLINE COURSE

यह प्रमाणपत्र

**MR. RISHABH RAJODIYA**

को " मशीन लर्निंग से डीप लर्निंग तक : सुदूर संवेदन डेटा वर्गीकरण की एक यात्रा "

में ऑनलाइन पाठ्यक्रम में भाग लेने पर प्रदान किया जाता है।

इस ऑनलाइन पाठ्यक्रम का आयोजन 04 जुलाई, 2022 से 08 जुलाई, 2022 ( कुल पाठ्यक्रम की अवधि = 13 घंटे 30 मिनट ) के दौरान किया गया।

(संबन्धित आई.आई.आर.एस. नोडल केंद्र- माधव प्रौद्योगिकी एवं विज्ञान संस्थान )

**THIS CERTIFICATE IS**

AWARDED TO

**MR. RISHABH RAJODIYA**

ON HAVING PARTICIPATED IN THE ONLINE COURSE ON

**"Machine Learning to Deep Learning: A Journey for Remote Sensing Data Classification"**

THIS ONLINE COURSE WAS CONDUCTED DURING **04-07-2022 to 08-07-2022** ( Total course duration was = 13 hours and 30 minutes ).

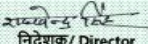
(Concerned IIRS Nodal Centre- Madhav Institute of Technology & Science)

Date: 20-07-2022

Place: Dehradun

UID- 7fed576fe46b82cfa4452638b35d148 . This Certificate can be validated using URL- <https://certificate.iirs.gov.in>

  
समन्वयक, विश्वविद्यालय/संस्थान  
Coordinator, University/ Institution

  
निदेशक/ Director  
आई.आई.आर.एस., देहरादून/ IIRS, Dehradun