

E- Newsletter

DEPARTMENT OF ELECTRICAL ENGINEERING

APRIL-JUNE 2019 | Volume 3, Number 2

VISIT US: <http://mitsgwalior.in/departement.php?id=ee#NL>

Vision

*“ To Prepare Professionally
Competent Electrical Engineers for
Global Industrial requirements and
societal needs”*



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NEWSLETTER TEAM MEMBER

Advisor – Dr. S. Wadhvani
FacultyMember- Prof.Shweta
Kumari, Prof.Aprajita Kumari,
Prof. Shailendra Pratap Prof
Bhavna Rathore, Prof Vishal
Chaudhary ,Dr Vikram,
Student member-Mr.Abhinav
Singh Tomar , B.Tech Third Year,
EED,Mr. Ritik Gupta, B.Tech Second
Year, EED

MISSION

- *Impart state-of-the-art technical education at UG, PG and Ph.D. levels through good academic support & facilities. (Academic Development)*
- *Keep pace with latest technological developments in the domain. (R&D Activities)*
- *Effective interactions with industries, academia and other stakeholders. (Industrial & Societal needs)*
- *Provide training on soft skills, managerial skills and professional ethics for overall development of students and society in an ethical manner. (Human Potential Development)*

Programme Educational Objectives (PEOs)

PEO-I

Graduates of the program will have successful technical and professional career

PEO-II

Graduates of the program will continue to learn and adapt in a world of constantly evolving technology

PEO-III

Graduates of the program will be able to apply, analyze, design and develop products and solutions for real life Electrical Engineering problems.

PEO-IV

Graduates of the program will be able to manage projects catering to current societal and industrial needs in an ethical manner as a members/leaders of multidisciplinary teams

FACULTY OUTREACHED



- **Dr. Sulochana Wadhvani** attended faculty training programme at IIT Roorkee on "DEEP learning and application" from 25th may to 31st may 2019.
- **Dr. Hari Mohan Dubey** attended faculty training programme at IIT Roorkee on DEEP learning and application from 25th may to 31st may 2019.
- **Prof. Ashis Patra** attended two faculty training programme at MITS GWALIOR on Simulation of Power Electronic Converters Serving to Hydropower Plants and Thermodynamics and its Applications to Solar Energy Systems Design from 20May-24May, 2019 and 09Mar-18Mar, 2019 respectively.
- **Prof. Rakesh Narvey** attended faculty training programme at IIT Delhi on " Computational Fracture Mechanics for Photovoltaic Reliability" from 18th may to 23st may 2019.
- **Prof. Vishal Chaudhary** attended faculty training programme at National Institute of Wind Energy, Chennai, Tamil Nadu on " Wind Energy Technology" from 11th march to 15st march 2019.
- **Prof. Vishal Chaudhary** attended faculty training programme at MITS Gwalior on " Art of Living - SELP" from 22th march to 27st march 2019.
- **Prof. Vishal Chaudhary** attended faculty training programme at IIT Delhi on "Summer Faculty Research Fellow Programme-2019 " from 3rd june to 12st july
- **Prof. Praveen Bansal** attended faculty training programme at IIT Delhi on "Fundamentals of robotics and artificial intelligence" from 01july to 05 july.
- **Prof. Punjan Dohre** attended faculty training programme at IIT Indore on "Advance Pedogogy and Digital Tool" from 24july to 28 july

- **Dr. Vikram** attended faculty training programme at IIT Indore on "Advance Pedogogy and Digital Tool" from 24july to 28 july
- **Prof. Saurabh Kumar Rajput** attended faculty training programme at IIT Indore on "Advance Pedogogy and Digital Tool" from 24july to 28 july
- **Prof. Manoj Kumar** attended faculty training programme at IIT Indore on "Advance Pedogogy and Digital Tool" from 24july to 28 july
- **Prof. Shailendra Pratap Singh** attended faculty training programme at IIT Indore on "Advance Pedogogy and Digital Tool" from 24july to 28 july
- **Prof. Rahul Sagwal** attended faculty training programme at IIT Indore on "Advance Pedogogy and Digital Tool" from 24july to 28 july
- **Prof. G K Naveen Kumar** attended faculty training programme at IIT Indore on "Advance Pedogogy and Digital Tool" from 24july to 28 july
- **Prof. Bhavna Rathore** attended faculty training programme at IIT Indore on "Advance Pedogogy and Digital Tool" from 24july to 28 july
- **Prof. Tarun Srivastva** attended faculty training programme at IIT Indore on "Advance Pedogogy and Digital Tool" from 24july to 28 july
- **Prof. Bhavna Rathore** attended faculty training programme at IIT Kanpur on "Smart Grid Technology" from 09 May to 13th may 2019.
- **Prof. Bhavna Rathore** attended faculty training programme at MITs Gwalior on "Trends and Techniques in image processing, Multimedia and Security Issues" from 15th march to 19th march 2019
- **Prof. G.K Naveen** attended faculty training programme at IIT delhi on "Next Generation Power Converters: Design PWM Strategy and Control" from 1july to 05th july 2019
- **Prof. Shailendra Pratap Singh** attended faculty training programme at MITs Gwalior on "Artificial Intelligence and Machine Learning" 07th march to 11th march.
- **Prof. Manoj Kumar** attended faculty training programme at MITS Gwalior on "Nano-Science and Technology" from 14th to 18th march.

- **Prof. Shweta Kumari** attended faculty training programme at IIT Kanpur on "Smart Grid Technology" from 09 May to 13th May 2019.
- **Prof. Aprajita Kumari** attended faculty training programme at IIT Kanpur on "Smart Grid Technology" from 09 May to 13th May 2019
- **Prof. Shweta Kumari** attended faculty training programme at IIT Delhi on "Advanced pedagogies: Active Learning and Digital Tools" from 1 July to 05th July 2019
- **Prof. Aprajita Kumari** attended faculty training programme at IIT Delhi on "Advanced pedagogies: Active Learning and Digital Tools" from 17th June to 21st June 2019
- **Prof. Punjan Dohre** attended faculty training programme at IIT Indore on "Advanced Pedagogy and Digital Tool" from 24 July to 28 July.

STUDENTS PARTICIPATION IN TECHNICAL EVENTS OUTSIDE THE COLLEGE

- **Khushboo Sharma** has attended international conference on "**International Conference on Advancements in Computing & Management**" at Jagannath University, Jaipur from 13-14, April 2019.
- **Nikhil Paliwal** has attended "**Advanced Engineering Optimization Through Intelligent Techniques**" at SVNIT Surat from 13-17 March 2019.



ACADEMIC ACTIVITIES

- **Expert talk** has been conducted by the **Er. Sarvendra Singh** (HOD automation SRF Malanpur) on the topic of **industrial automation** for the final year students on 8th April 2019
- **Expert talk** has been conducted by the **Er. Vivek Singh** (Ex-DGM) on the topic of **Modern automation** for the final year students on 8th April 2019

SUMMER INTERSHIP PROGRAMME 2019:-

The summer internship programme has been conducted by Electrical Engineering department from 1st June to 15th June 2019 under the guidance of Prof. Himmat Singh and Prof.R.Narvey, as faculty coordinator and Prof. Praveen Bansal, Prof. Nipun gupta, Prof. Bhavana Rathore, Prof Punjan Dohare, Prof Rahul Sagwal, Prof. S. Rajput, Prof Manoj, Prof. Shailendra, Prof Naveen, Prof. Shweta and Prof. Aprajita as module coordinator. The department has offered six modules and in this summer internship programme students of 1st year and 2nd year were benefited.

Following modules were introduced:-

1. Electricity usages for domestic and industrial application: In this module students get knowledge about the fundamental principle of domestic and industrial appliances such as Construction features of tube light, bulb, ceiling fan, cooler etc. their operation and load calculation, Basics of generation, transmission, distribution, different voltage levels, types of AC and DC distribution, Power generation capacity in INDIA and abroad & its geographical distribution, Domestic and Industrial load calculation and read electricity bill and tariff calculation.



2. Hands on training on signal and image processing in toolbox in MATLAB: This module introduces Basic signals and sequences representation such as unit sample, unit step, real and complex valued exponential, sinusoidal, random and periodic sequences. Sampling and correlation of two sequences. Image Processing operations such as Point operations and image representation. Basic Image processing operations such as sharpness, contrast, negative, masking filtering and threshold, Images, their histograms and histogram normalization.



3.Designing and modeling of

Electrical Components:This module presents hands on training to design different loading arrangements,types of wiring, constructional view of measuring components, types of winding in AC and DC machines,prototype modeling of free energy , DC generators, domestic switch board and their wiring connections, series board ,Inverter wiring, cable sizing etc.

4.Introduction to Solar Photovoltaic and application of power Electronics switches in Solar Inverter

= Hands on training of Solar Photovoltaic,Application of power electronics in solar technology,Concept of solar Inverter

5.Introduction to MATLAB programming for Engineering applications

= Introduction to MATLAB working with special matrices and toolboxes. Variables, arrays, conditional statements, loops, functions and plots will be discussed



6.Designing and modeling of Electronics Components

= This module presents introduction and training about the basic network used in various equipment such as Verify network concepts of Kirchhoff's Current & Voltage Law, design prototype model of Half wave and full wave rectifier circuits, Design of dual polarity DC power supply and theorems



PUBLICATIONS

- **Shishir Dixit**, "Enhancement of Voltage Stability by Placement of FACTS Devices" *International Journal of Research in Technology Volume VI, Issue II, JUNE 2019*
- **Shishir Dixit**, "Placement of FACTS Devices for Improving Power System Performance" *International Journal of Research in Technology Volume VI, Issue II, APRIL 2019*
- **Punjan Dohare, Amol P. Bhondekar, C. Ghanshyam** "Influence of airflow dynamics on vortices in the human nasal cavity" *Engineering Computations, ISSN:0264-4401, JULY 2019*
- **SP Bihari, AK Babul, U Yadav, S K Rajput** "A Case Study on Energy Audit of Architecture Block in Academic Building" *3rd National Conference on Recent Trends in Electronics and Electrical Engineering (NCRTEEE-2019, 10TH TO 11TH 2019.*

BOOK/BOOK CHAPTER PUBLISHED

- **Vishal Chaudhary, Hari Mohan Dubey and Manjaree Pandit**, "Water Cycle Optimization for Non Convex Economic Dispatch, *Advanced Engineering Optimization Through Intelligent Techniques*" Springer.
- **Anand Singh Tomar, Hari Mohan Dubey and Manjaree Pandit**, "Multiobjective Economic Emission Dispatch with Cubic Cost Function using Spider Monkey Optimization and TOPSIS, *Advanced, Engineering Optimization Through Intelligent Techniques*" Springer.