

E- Newsletter

DEPARTMENT OF ELECTRICAL ENGINEERING

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Vision

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



CONTENT

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NEWSLETTER TEAM MEMBER

Advisor – Dr. S. Wadhvani
faculty Member- 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. A.K. Wadhvani, Prof. Ashish Patra, Dr. Sulochana Wadhvani, Hari Mohan Dubey, Dr. Shishir Dixit, Prof. Rakesh Narvey, Prof. Himmat Singh, Prof. Vishal Chaudhary**, attended the AICTE Training and Learning (ATAL) Academy on "The Internet of Things (IoT): Introduction and Applications" organised by Department of Electrical Engineering Maulana Azad National Institute of Technology Bhopal from 04TH TO 08TH MAY,2020.
- **Dr. A.K. Wadhvani, Dr. Sulochana Wadhvani** attended Two Days FDP on "Artificial Intelligence in Healthcare"organized by R.C. Patel Institute of Technology, Shirpur from 10th June 2020 to 11th June 2020.
- **Prof. Ashish Patra** attended the FDP, Teaching through E-learning technologies: development of E content organized ABV-IIITM- Gwalior from 31st May TO 05TH June,2020.
- **Prof. Ashish Patra** attended the AICTE Training and Learning (ATAL) Academy on FDP on Next-Generation Semiconductor Devices for high-end applications organised by NIT-Patna from 22nd June TO 27th JUNE,2020.
- **Dr. Shishir Dixit** attended online two day international conference International Conference on Engineering, Technology and Management for the Sustainable Development (ICETMSD-2020 organized by IIIT college Meerut from 26th MAY to 27th may 2020.
- **Dr. Shishir Dixit** attended online two day international conference "RT20, OPAL-RT's 12th International Conference on Real-Time Simulation, virtual edition" organized by OPAL-RTs Technologies from 18th JUNE to 19TH JUNE 2020.
- **Dr. Shishir Dixit, Prof. G K Naveen Kumar, Prof. Manoj Kumar** attended Online National Workshop on Robotics and Industrial Automation organized by electrical engineering department of MITS Gwalior on 20th June.
- **Dr. Shishir Dixit** attended Online Faculty Development Programme Design, Develop and Deliver Online Courses organized by NIEPA New Delhi 22nd June 2020 to 26th June 2020.

FACULTY OUTREACHED

- **Dr. Vijay Bhuria , Prof. Praveen Bansal, Prof. Vishal Chaudhary** attended FDP on Transition to Blended Teaching and Learning organized by Rajarshi School of Management & Technology, UP College Campus, Varanasi from 2nd to 6th June 2020.
- **Prof. Kuldeep Kumar Swarnkar, Prof. Vishal Chaudhary** attended ONLINE FACULTY DEVELOPMENT PROGRAMME ON "EVOLUTION OF TEACHING LEARNING PROCESS – POST COVID 19" organized by BIHER, Chennai from 11th May to 15th May 2020.
- **Prof. Kuldeep Kumar Swarnkar** attended ATAL Faculty Development Programme on Artificial Intelligence organized by Motilal Nehru National Institute of Technology Allahabad, India from 18th May to 22th May 2020
- **Prof. Kuldeep Kumar Swarnkar** attended Online Faculty Development Programme on "Augmented Reality - an Alternate Teaching Approach" organized by Kumaraguru College of Technology, Department of ECE in association with ICAR Lab, KCT, Coimbatore and Dot World Technologies ,Coimbatore from 30th May to 3rd June 2020.
- **Prof. Vishal Chaudhary** attended One week online FDP on "Modern Trends in Electrical Drives" organized by NIT Nagpur from 19th to 23rd May 2020.
- **Prof. Vishal Chaudhary** attended Online Faculty Development Program on "Outcome Based Education and Accreditation" organized by IILM College of Engineering & Technology from 25th May to 29th May 2020.
- **Prof. Vishal Chaudhary** attended Online workshop on "The Growing Role of IOT in Covid-19 and Health Care" organized by Rajiv Gandhi Pradyogiki Vishwavidyalaya, Bhopal from 8th to 10th June 2020.
- **Prof. Punjan Dohare, Prof. Rahul Sagwal, Prof. Nipun Gupta, Prof. Shailendra Pratap Singh, Prof. Saurabh Kr Rajput, Dr. Vikram, Prof. G K Naveen Kumar, Prof. Shweta Kumari, Prof. Aprajita Kumari, Prof. Manoj Kumar** attended FDP on Artificial Intelligence, Machine Learning, Internet of Things and Big Data applications in Power Electronics and its allied Areas organized by GOKARAJU RANGARAJU Institute of Engineering and Technology, Hyderabad from 1st June to 06th June 2020

FACULTY OUTREACHED

- **Prof. Rahul Sagwal** attended Online workshop on Education 4.0-season II organized by IQAC, Atharva College of Engineering, Mumbai 28th to 30th may 2020.
- **Prof. Rahul Sagwal, Prof. G K Naveen Kumar, prof Shweta kumari, Prof Aprajita Kumari** attended One Week FDP On Advanced Research Methodology & Innovative Teaching Pedagogy organized by Tulsiramji Gaikwad Patil College of Engineering & Technology, Nagpur from 8th to 13th June 2020.
- **Prof. Rahul Sagwal** attended “Recent trends in Computer Architecture, VLSI and Embedded Systems (RCAVES-2020)” organized by ECE department, Gokaraju Rangaraju Institute of Engineering and Technology (GRIET), Hyderabad from 8th to 13th June 2020.
- **Prof. Rahul Sagwal, Prof. Bhavna Rathore** attended Workshop on LaTeX - A Scientific Documentation Tool organized by Kakatiya Institute of Technology & Science, Warangal from 11th to 12th June 2020.
- **Prof. Rahul Sagwal** attended “International Short Term Course on “MicrogridOpportunity: Renewable Energy Resources and Buildings” organized by Dayalbagh Educational Institute (Deemed University), Agra from 16th to 20th June 2020.
- **Prof. Nipun Gupta, Prof. Saurabh Kr Rajput** attended FDP on Energy Conservation and Renewable Energy organized by IGNOU New Delhi from 8th to 12th June 2020.
- **Prof. Saurabh Kr Rajput** attended FDP on Machine Learning and its Applications organized by IIT Roorkee from 04th to 12 th may 2020.
- **Prof. Saurabh Kr Rajput** attended FDP on Arduino Training organized by iit Bombay from 28th April to 04th may 2020.
- **Dr. Vikram, Prof. G K Naveen** Kumar attended Online FDP on “Scilab” organized by PRAKASAM ENGINEERING COLLEGE ALONG WITH IIT BOMBAY from 04th to 10th June 2020.
- **Dr. Vikram** attended One week FDP on “Open Source Tools for Research organized by Ramanujan College, University of Delhi from 8th to 14th June.
- **Dr. Vikram** attended Online Workshop on “Demystify the DATA organized by LNJPIT , Chapra from 23rd to 27th June 2020.
- **Prof. G K Naveen Kumar, Prof. Manoj Kumar** attended Online Certificate Program on Hydrometeorological and Event Disaster Risk Management organized by IIT Indore & NIDM from 01st to 21st June 2020.
- **Prof Tarun Srivastava** attended six days Training Program on “Power System Optimization Using GAMS” organized by Rajarambapu Institute of Technology, Rajaramnagar from 11th to 16th may 2020.

FACULTY OUTREACHED

- **Prof Tarun Srivastava** attended AICTE Training And Learning (ATAL) Academy Online FDP on "Internet of Things(IoT)" organised by MANIT Bhopal from 25th to 29th may 2020.
- **Prof Tarun Srivastava** attended National Workshop on Robotics and Control organized by MITS, Gwalior from 16th to 17th June 2020.
- **Prof Tarun Srivastava** attended Five- Days Faculty Development Programme ON "Teaching through E-Learning Technologies: Development of E-Content organized by IIPA Bareilly Chapter and ABV-IIIITM Gwalior from 31st may to 04th june 2020.
- **Prof Tarun Srivastava** attended Workshop on "The Growing Role of IOT in Covid-19 and Health Care", by Dr. Shriram K. Vasudevan, organized Shri G. S. Institute of Technology & Science, Indore (M.P. from 8th to 10th June 2020.
- **Prof Tarun Srivastava** attended Six - Days Faculty Development Programme ON "Recent Trends in Electronics Engineering" organized by by LNJPIT , Chapra from 15th to 20th June 2020.
- **Prof Tarun Srivastava** attended one wee workshop " IOT projects for industrial application organized by Shri Vishwakarma Skill University , Haryana from 10th to 14th June 2020.
- **Prof. Bhavna Rathore** attended FDP on "Real Time Hardware-in-the-Loop (HIL) Simulation for Power Electronics & Power Systems organised by REC Manipuri from 22nd to 26th June 2020.
- **Prof. Bhavna Rathore** attended FDP on "Real Time Protection of Modern Power Systems organized by KITSW, IEI Warangal Local Chapter from 23rd to 27th June 2020.
- **Prof Punjan dohare** attended FDP on MOODLE Learning Management System organized by Government College of Engineering Kalahandi in association with Spoken Tutorial Project, IIT Bombay from 25th may to 20th may 2020.
- **Prof punjan dohare** attended FDP on Waste Management organized by NITTTR Chandigarh from 8th June to 12th June 2020.
- **Prof. Bhavna Rathore** attended FDP on "Real Time Hardware-in-the-Loop (HIL) Simulation for Power Electronics & Power Systems" organized by SGSITS Indore from 28th to 30th June 2020.
- **Prof. Manoj Kumar** attended Online FDP on Control Applications in Renewable Energy Systems- Recent Trends and Future Aspects organized by Invertis University from 22nd to 27th June 2020.
- **Prof Tarun Srivastava** Latest Software Tools for Engineering and Sciences" (MATLAB, LATEX, LINGO & MATHEMATICA) organized by University College of Engineering & Technology, Bikaner from 17th to 26th may 2020.

PUBLICATIONS

- **Ashis Patra** "PSO based optimal design of PID controller for automatic voltage regulator" *International research journal of innovations in engineering and technology (IRJIET)*, January 2020
- **Himmat Singh Laxmi Srivastava** "NSGA-II Based Reactive Power Management in Radial Distribution System Integrated with DGs" Book Title *Nature Inspired Optimization for Electrical Power System* First Online: 08 April 2020
- Prabhat kumar Shukla, Ankush Tiwari Ashish Gupta , Avdhesh Kumar, **Kuldeep Swarnkar** , " Thyristor controlled power for Single phase induction motor" Volume 7, Issue 2 June 2020
- **KULDEEP KUMAR SWARNKAR** , "Simulation Model of Grid Connected Rooftop Solar Power Plant ", *International Journal For Science And Advance Research in Technology (IJSART)*
- **CONFERENCES**
- Vinay Kumar Tatikayala **Shishir Dixit** "Enhancement of Power Quality for Wind Systems in Grid Application with SVPWM Control" *International Conference on Engineering, Technology and Management for the Sustainable Development (ICETMSD-2020)* May 26-27, 2020
- AK Singh, A Singhal, A Athaya, **S.K. Rajput, L. Srivastava**" Energy Audit of Hybrid (Grid, Solar Rooftop Photovoltaic System and Diesel Generator) Electric Power Supply System: A Case Study of Commercial Building" , *Electric Power & Renewable Energy Conference-2020 (EPREC-2020)* May 29-30, 2020 (Presented)
- A Vishwakarma, A Sahu, N Seikh, P Payasi, **S.K. Rajput, L. Srivastava** , "IOT Based Greenhouse Monitoring and Controlling System", *SCES-2020* June 02, 2020 (Accepted)
- A Babul, **SK Rajput, H Singh, RC Yadav**, " Energy and Economic Analysis of Grid Type Roof-Top Photovoltaic (GRPV) System ", *Electric Power & Renewable Energy Conference-2020 (EPREC-2020)* May 29-30, 2020 (Presented)
- A Saxena, S yadav, P Ladhe, A Gupta, **S.K. Rajput** , "Improving Energy Efficiency and Reducing CO2 Emission by Walk Through Energy Audit of Ring Frame Machine Section of Textile Plant: A Case Study", *4th National Conference on Recent Trends in Electronics and Electrical Engineering (NCRTEEE-2020)* June 12, 2020 (Accepted).

PUBLICATIONS

- V. Tiwari, SM Dubey, **HM Dubey, M. Pandit**, " Smart Grid Communication: A Survey of State-of-the-Art". Proceedings in Adaptation, Learning and Optimization PALO, Vol 13. 2020, Springer
- Deepak Kumar Sharma, **Hari Mohan Dubey, Manjaree Pandit** ."Single and Multi-Area Optimal Dispatch by Modified Salp Swarm Algorithm" .J. Intelligent Systems and Applications (MECS Press) Jun. 2020, MECS Press
- **Bhavna Rathore , Laxmi Srivastava, Nipun Gupta, Shailendra Pratap Singh, and Rahul Sagwal**," A Comprehensive Study on AC Microgrid Control Strategies at Primary Control Level "Springer book "Intelligent Computing Applications for Sustainable Real-World Systems"
- **S.K. Rajput, S. Wadhvani**, D.K. Dheer "Energy Consumption and Energy Saving Potential in Indian Textile Sector",IEEE International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET 2020) May 12, 2020 (Accepted)
- **S. K. Rajput**, M.K. Gaur, A. Deo" Energy Analysis of 50 kWp rooftop Solar Photovoltaic Plant". SOLARIS 2020 National Conference on Sustainable Environment and Climate Feb 07-09, 2020 (Presented)
- **S.K. Rajput, Dr. Vikram, N. Gupta** ,"Improving Energy Efficiency of Institutional Building: An Energy Audit Study ",IEEE RECCON 2019 ,Nov 28-29, 2019
- **Tarun Shrivastava**, Dr.S.C. Gupta and Dr.A.M. Shandilya "NSGA-II Based Multi Objective Design Optimization of Resistive Superconducting Fault Current Limiters "International Journal of Recent Technology and Engineering scopus journal april 2020
- **Tarun Shrivastava**, Dr.S.C. Gupta and Dr.A.M. Shandilya "A GWO Implementation for Free FEM++ and Its Utilization in Optimization of Roebel Cable for SFCL Applications"Journal of Advanced Research in Dynamical and Control Systems scopus, journal may 2020
- **Tarun Shrivastava**, Dr.S.C. Gupta and Dr.A.M. Shandilya "FEM Based Modling and Optimization of Roebel Cable for SFCL Applications using PSO " ,International Journal of Advanced Science and Technology (IJAST) scopus , journal may 2020
- Rinisha Bagaria, **Sulochana Wadhvani, A. K. Wadhvani**," Different Techniques for Identification of a Bone Fracture in Analysis of Medical Image", SRCCEM, Gwalior 10-12 April, 2020

PUBLICATIONS

- **BOOK PUBLISHED**
- **Punjan Dohare**, Amol P Bhondekar , *"Intelligent Computing Applications for Sustainable Real-World Systems ,Springer*
- Parmar R., **Wadhvani S Pandit M**, *"Modified Flower Pollination Algorithm for Optimal Power Flow in Transmission Congestion "Machine Intelligence and Signal Processing. MISP 2019. Advances in Intelligent Systems and Computing, vol 1085. Springer, Singapore,*
- **Bhavna Rathore , Laxmi Srivastava, Nipun Gupta, Shailendra Pratap Singh, and Rahul Sagwal**, *"A Comprehensive Study on AC Microgrid Control Strategies at Primary Control Level",Springer Book-Intelligent Computing Applications for Sustainable Real-World Systems*

STUDENT ACTIVITES

- **Yuvraj Singh** attended National level online quiz organized by Mandsaur University on 10th MAY 2020.
- **Sanidhya Chaturvedi** attended National Virtual Debate competition, Jiwaji University from 15-16th May 2020
- **Sanidhya Chaturvedi** attended National Engineering Olympiad 3.0 from 24-28th April 2020
- **Sanidhya Chaturvedi** attended StartUp India learning program on 2 June 2020.
- **Ayush Shukla** attended National level online quiz, NITTE on 20 May 2020.
- **Ayush Shukla** attended TATA E-Learning program on Power System Power Cables ON 22 April 2020.
- **Ayush Shukla** attended TATA E-Learning program on Power System Power Earthing ON 22 April 2020.
- **Ayush Shukla** attended TATA E-Learning program on Power System Power Generation ON 22 April 2020.
- **Ayush Shukla** attended Paper Publication in Journal of Emerging Technologies and Innovative Research on May 2020.
- **Mayanka Sikarwar** attended Online Quiz on Principles & Practices of Management on 06 June 2020 with 90% score.
- **Mayanka Sikarwar** attended Webinar on Future Front End Developer on 17 June 2020
- **Mayanka Sikarwar** attended Webinar on Webinar on Recent Trends in Automobile Industry on 14 May 2020.
- **Prajawal Singh Tomar** attended Webinar on Concepts of robot programming and application on 30 May 2020.
- **Shraddha Saxena** attended 6 weeks online training on Machine Learning from 01 May-11 June 2020 with 97% score.
- **Ayush Shukla** attended Online Course on Introduction to HTML on coursera on 27 June 2020.
- **Sangeeta Ahirwar** attended Online quiz, Rangmanch 2020 on 04 June 2020.
- **Vikas Vishwakarma** attended Webinar on Concepts of Robot Programming & Application on 30 May 2020.
- **Abhay Agrawal** attended Webinar on Learn to Develop Android App on 24 May 2020.
- **Abhay Agrawal** attended Webinar on Earthquake resistant design of buildings on 03 June 2020.
- **Abhay Agrawal** attended Webinar on building energy management system on 10 June 2020.

STUDENT ACTIVITES

- **Anjali Shrivastava** attended Online quiz, Rangmanch 04 June 2020.
- **Abhay Agrawal** attended 1 Day workshop on Robotics & Industrial Automation.
- **Abhay Agrawal** attended 5 Days FDP on Cyber Security 02-06 June 2020.
- **Abhay Agrawal** attended GOOGLE Digital Garage certification exam on Fundamentals of digital marketing on 29 May 2020.
- **Abhay Agrawal** attended Webinar on Basic Awareness of Concrete Technology on 04 June 2020.
- **Abhay Agrawal** attended Webinar on PLC, AKGEC on 06 June 2020.

STUDENT PARTICIPATION IN SPORTS/EXTRA-CURRICULAR/CULTURAL OUTSIDE THE INSTITUTE:

- **Ayush Shukla** attended TCS ION online course on Knockdown the Lockdown from 11-18 April 2020.
- **Sanidhya CHaturvedi** attended COVID 19 training for NCC Cadets 11 June 2020.

DEPARTMENT ACTIVITES

- Electrical engineering department has organized One day Online National Workshop on "**Robotics and Industrial Automation**" on 20 June 2020 with experts Prof S K Saha, from IIT Delhi, Er Ashutosh Chhinchoikar, and Prof Rajeev Lochan. In this activity around 59 participants attended from various organisations.

INNOVATIVE RESEARCH SCHEME 2020 (Under TEQIP-III)

S.No.	Reference No.	Name of PI	Name of Co-PI	Sanction Amount(Rs.)
1	616 dated 09.03.2020	Prof. Himmat Singh Ahirwar	Dr. Laxmi Srivastava	1,72,500/-
2	614 dated 09.03.2020	Prof. Praveen Bansal	--	1,92,280/-
3	615 dated 09.03.2020	Prof. Vishal Chaudhary	Dr. Hari Mohan Dubey	1,72,500/-

FACULTY AS RESOURCE PERSON

- **Dr. M. Pandit** Expert has delivered expert Lecture in international event organized by MNIT Bhopal on "Role of Internet of Things(IoT) in Microgrid" from 4th -8th May 2020
- **Dr. A.K.Wadhvani** has delivered Expert Talk in international event organized by SIRT, Bhopal on "Role of Artificial Intelligence in IoT" from 20 June 2020.
- **Saurabh Kr Rajput** invited for the Expert Lecture on Webinar organized by Inverties University Bareilly (UP) 08.05.2020.
- **Dr. Shishir Dixit** Session Chair IEEE International Conference on "Communication Systems and Network Technologies (IEEE CNST-2020) SRGOC, Banmore, Gwalior April 10-12, 2020
- **Prof. Vishal Chaudhary** Session Chair Two Days National e-conference on Energy Efficient Systems in Electrical Engineering (NCEESE 2020) Sagar Institute of Research & Technology, Bhopal 19th – 20th June 2020