## Department of Electrical Engineering

# Faculty Participation and Achievement (2024-25)

| Name of Faculty | Particulars |
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| Dr.Bhupendra Kumar | 1. Manuscript titled "Challenges and mitigation techniques in adaptive protection for microgrids: comprehensive review" is published in Renewable Energy Focus Journal, Elsevier (ESCI)<br>2. Manuscript titled "Solar Powered Electric Vehicle", is published in the International Journal of All Research Education and Scientific Methods.<br>3. Published conference paper "Design of DC-DC Interleaved Boost Converter Using Sliding Mode Control", at International Conference on Sustainable Power and Energy ResearchICSPER 2024, at National Institute of Technology Warangal.<br>4. Published conference paper "Condition Monitoring of Power Transformer using Fuzzy Logic Approach" at international conference ICAESD 2024 at GCOE, Amravati<br>5. Patent published with title "Hybrid electric bicycle with regenerative kinetic energy and solar assisted charging"<br>6. Patent published with title "Solar Powered Moss-Based Outdoor Air Purifier with Air Quality Monitor"<br>7. Worked as a General Chair for ICACEBD 2025 held at GHRCEM, Nagpur at 05th and 06th June 2025<br>8. Participated in One-Week Online Short-Term Programme on "Advanced Techniques in Biomedical Image Processing Using AI" under Malaviya Mission Teacher Training Programme of University Grants Commission Organized by Malaviya Mission Teacher Training Centre, National Institute of Technology Warangal from 26-08-2024 to 31-08-2024.<br>9. Participated in Workshop on MATLAB and PYTHON Programming (MPP-2025), during May 19-23, 2025, in online mode, organized by Department of Mathematics, National Institute of Technology Jamshedpur.<br>10. Contributed as a Reviewer for the 1st international conference on "smart power control and renewable energy (ICSPCRE-2025) organized by department of Electrical Engineering from 19-21 July 2024 at NIT Rourkela<br>11. Contributed as a Session chair at the IEEE – Sponsored International conference on Sustainable power and Energy 2024, held on 28th -29th November 2024, Organized by Department of Electrical Engineering, O P Jindal University Raigarh Chhattisgarh India.<br>12. Contributed as a Reviewer for the 4th international conference on "Power Control and computing Technologies (ICPC$^2$T-2024) organized by department of Electrical Engineering from 20-22 January 2025 at NIT Raipur<br>13. Contributed as a Reviewer for the 3rd international conference on "Advance Communication Energy and Big Data (ICACEBD-2025) |

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| | organized from 5- 6 June 2025 at GHRCEM Nagpur<br>14. Contributed as a Reviewer for prestigious journals such as, IEEE Transaction on Power Delivery, IET-GTD, IET-SMT, Elsevier-EPSR, Elsevier–Applied Soft Computing, Taylor & Francis- EPCS |
| Mr.Kiran Raut | 1. Patent published under title "Hybrid electric bicycle with regenerative kinetic energy and solar assisted charging.<br>2. Book chapter published in Advances in Clean Energy and Sustainability, Volume 1, under the title of "low cost hybrid electric vehicle<br>3. Research paper published in world electric vehicle journal under title "Performance Analysis of Multiple Energy-Storage Devices Used in Electric Vehicles".<br>4. Research paper published in AIP Advances, "Design of wireless charging system for E-Vehicle".<br>5. Resource person in ATAL FDP Workshop on Recent trends and advances in energy storage system E- Mobility<br>6. Recommendation letter from Dr,Ravita lamba,Assistant Professor, Department of Hydro and Renewable Energy,Indian Institute of Technology Roorkee,for KPIT shodh award.<br>7. Worked as reviewer for ICACEBD 2025 held at GHRCEM, Nagpur at 05th and 06th June 2025<br>8. Guest lecture delivered in SB jain institute of technology and management research college under the title "Solar installation & its importance:Sustainable Energy Future".<br>9. Completed ATAL FDP on PRISM: Promoting Renewable Integration with Sustainable Mobility in Smart Cities organized by SVNIT Surat, from 02/12/2024 to 07/12/2024.<br>10. Participated in the workshop entitled "Digital Transformation and Industry 5.0" held at Vellore Institute of Technology, Vellore, India during 16/12/2024 to 17/12/2024 |
| Mr.Avinash Welankiwar | 1. Completed ATAL FDP on PRISM: Promoting Renewable Integration with Sustainable Mobility in Smart Cities organized by SVNIT Surat, from 02/12/2024 to 07/12/2024.<br>2. Presented paper titled "Condition Monitoring of Power Transformer using Fuzzy Logic Approach" at international conference ICAESD 2024 at GCOE, Amravati<br>3. Worked as reviewer for ICACEBD 2025 held at GHRCEM, Nagpur at 05th and 06th June 2025<br>4. Worked as reviewer for 2024 IEEE 42nd Central America and Panama |

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| | Convention<br>5. Manuscript titled "Challenges and mitigation techniques in adaptive protection for microgrids: comprehensive review" is published in Renewable Energy Focus Journal, Elsevier (ESCI)<br>6. Completed One Week Faculty Development Programme / Short Term Training Programme on "Introduction to Machine Learning and Deep Learning" organised by NITTTR Kolkata from 25th November to 29th November, 2024<br>7. Elite certification in NPTEL Course on "Integrated Marketing Communication "<br>8. Copyright titled "FUNDAMENTALS OF SINGLE PHASE INDUCTION MOTORS " is registered with ROC:L-161239/2025<br>9. Completed One-week STTP on ''Smart and Sustainable Strategy for Renewable Energy and E-mobility'' organized by Department of Electrical Engineering, SVNIT Surat from 23rd to 27th September, 2024.<br>10. Participated in the workshop entitled "Digital Transformation and Industry 5.0" held at VIT,Vellore, India during 16/12/2024 to 17/12/2024.<br>11. Patent published with title "Hybrid electric bicycle with regenerative kinetic energy and solar assisted charging" |
| Dr.Tarun Shrivastava | 1. Ms. Rupali Rajesh Hete, a research scholar at G. H. Raisoni University, Amravati (GHRUA), has been awarded the degree of Doctor of Philosophy (Ph.D.) under supervision awarded on 11th April 2025.<br>2. Patent published with title, "A SOLAR POWERED AIR PURIFIER" with design no 444238-001, dated on 22/04/2025 3. Worked as reviewer for ICACEBD 2025 held at GHRCEM, Nagpur at 05th and 06th June 2025<br>4. completed the NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MMTTP) of University Grants Commission (UGC) organized by UGC-Malaviya Mission Teacher Training Centre, National Institute of Educational Planning and Administration New Delhi from 1-10 January 2025.<br>5. participated; completed AICTE Training and Learning (ATAL) Academy Faculty Development Program on Crystal Growth, Semiconductor Processing and Manufacturing Technologies at Indian Institute of Technology (Indian School of Mines) Dhanbad from 16/12/2024 to 21/12/2024.<br>6. Published the IEEE International Conference on "Unsymmetrical Fault |

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| | Analysis of DFIG wind form using FO-PI controller with online Neural Tuning" 2nd IEEE International Conference on Networks, Multimedia and Information Technology (NMITCON-2024), 04 October 2024 Nitte Meenakshi Institute of Technology, Bengaluru, ISBN:979-8-3503-7289-2 10.1109/NMITCON62075.2024.10698822<br>7. Published the IEEE International Conference on "PI Controller Design Using Neural Tuning Method for DFIG Grid Integration", 2024 IEEE 5th India Council International Subsections Conference (INDISCON) Chandigarh, 11 10.1109/INDISCON62179.2024.10744305<br>8. Participated in the Two days FDP on "Advance AI Tools for preparing Research paper" organized by the department of computer science and engineering at SASI Institute of technology and engineering in association with Pencil Bitz on November 8th & 9th 2024<br>9. Successfully participated in IP Awareness/Training NATIONAL INTELLECTUAL PROPERTY AWARNESS MISSION ON august 30, 2024<br>10. Successfully participated in Two days national workshop on "Electric vehicles challenges and opportunities" Sponsored by Gujarat Council of science and technology (GUJCOST) and parul university organized by Electrical Engineering department, Parul institute of engineering and technology – Diploma studies from 29 th & 30 th December 2024<br>11. Successfully completed NPTEL Course on "Solar Energy Engineering and Technology" NOV 2024 |
| Mr.Yogesh Ikhe | 1. Copyright titled "Automated headlight intensity Control and obstacle alerting system in EV", is registered with ROC:L-163204/2025.<br>2. Completed ATAL FDP on Electric Vehicle & Charging Station Technology for Sustainable Development at NIT Jamshedpur from 13/01/2025 to 18/01/2025.<br>3. Successfully completed the HP LIFE online course Success Mindset from 16/06/2025 to 18/06/2025.<br>4. Successfully completed NPTEL Course on "Dc Microgrid and Control System".<br>5. Worked as reviewer for ICACEBD 2025 held at GHRCEM, Nagpur at 05th and 06th June 2025.<br>6. A paper titled "Design of PV Battery Hybrid Inverter" is published in International Journal for Multidisciplinary Research, E-ISSN: 2582-2160.<br>7. A manuscript titled "Design of DC-DC Interleaved Boost Converter Using Sliding Mode Control" is published in Springer, Notes on |

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| | Electrical Engineering.<br>8. Completed the One-Week Online Short-Term Programme on "Advanced Techniques in Biomedical Image Processing Using AI" organized by National Institute of Technology Warangal from 26-08-2024 to 31-08-2024.<br>9. Participated in the workshop entitled "Digital Transformation and Industry 5.0" held at Vellore Institute of Technology, Vellore, India during 16/12/2024 to 17/12/2024.<br>10. Patent published with title "Hybrid electric bicycle with regenerative kinetic energy and solar assisted charging" .<br>11. Participated in the five days short-term course on, "AI Driven Techniques for Computer and Electronics Engineering",organized by Dr B R Ambedkar National Institute of Technology, Jalandhar Punjab, from 09th December to 13th December 2024.<br>12. Patent published with title "Solar Powered Moss-Based Outdoor Air Purifier With Air Quality Monitor" . |
| Mr.Chetan Kidile | 1. Research Paper published in International Conference on sustainable power & Energy research organised by National Institute of Technology Warangal titled on "Design of DC-DC Interleave Boost Converter Using Sliding Mode Control".<br>2. Research Paper published in International Journal for Multidisciplinary Research (IJFMR) under title "Industry Monitoring & Security System Using IoT".<br>3. Patent Published under title "Solar Powered MOSS Based Outdoor Air Purifier with Air Quality Monitor".<br>4. Worked as reviewer for International Conference on Advance Communication, Energy &<br>Big Data (ICACEBD) 2025 held at GHRCEM, Nagpur at 05th and 06th June 2025.<br>5. Copyright titled "Solar Powered Moss Based Outdoor Air Purifier with Air Quality Monitor", is registered with ROC: L-154297/2024.<br>6. Copyright titled "Industry Monitoring & Security System Using IoT", is registered with ROC: 4043/2025-CO/L<br>7. NPTEL online courses "DC Microgrid And Control System" coordinated by IIT Roorkee, Jul-Sep 2024. (Elite + Silver Certificate)<br>8. Attended One-week FDP on "AICTE Training and Learning (ATAL) Academy Faculty Development Program on Recent Advancement in e-Mobility for Developing Power Utility at NIT Jamshedpur from 06/01/2025 to 11/01/2025. |

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| | 9. Attended in the 05 days STTP on “Emerging Application ogf AI & IoT: Opportunities & Challenges in 2024” organised by EE Department National Institute of Technology Jamshedpur India during 12/09/2024 to 27/09/2024<br>10. Attended in the 05 days FDP on “AI for Sustainable Development” held at IEEE Region VIT Pune India during 05/08/2024 to 09/08/2024<br>11. Attended the One-Week STTP on “Advanced Techniques in Biomedical Image Processing Using AI” organized by National Institute of Technology Warangal from 26-08-2024 to 31-08-2024<br>12. Participated in the workshop entitled “Digital Transformation and Industry 5.0” held at Vellore Institute of Technology, Vellore, India during 16/12/2024 to 17/12/2024<br>13. Successfully completed the online Certification Course on Ethics in Teaching & Learning Department of Humanities and Social Sciences Indian Institute of Technology Madras from 21/03/2025 to 25/03/2025. |
| Mr.Pawan Kamdi | 1. Presented paper on “Contingency Analysis and Placement of DG to Improve Power Performance Indices” in IEEE 3rd (ODICON-2024), organized by Department of Electrical Engineering, Institute of Technical Education & Research,Faculty of Engineering; Technology, Siksha & Anusandhan Deemed to be University, Bhubaneswar, Odisha.<br>2. Research paper published on “Automatic and Portable Physiotherapy Hardware Device for Legs Authors” in International Journal for Multidisciplinary Research (IJFMR) E- ISSN: 2582-2160.<br>3. Completed one week STTP on “AI Driven Techniques for Computer and Electronics Engineering “organized by NIT Jalandhar, Punjab between 9th Dec to 13th Dec 2024.<br>4. Participation in the One-week Faculty Development Program on Transforming Innovations into Reality for Future science and Engineering (TIRFSE 2K24) during November 4 - 8, 2024.<br>5. Completed the One-Week Online Short-Term Programme on “Advanced Techniques in Biomedical Image Processing Using AI” under Malaviya Mission Teacher Training Programme of University Grants Commission Organized by Malaviya Mission Teacher Training Centre, National Institute of Technology Warangal from 26-08-2024 to 31-08-2024.<br>6. Guest lecture delivered in Agnihotri College of engineering Wardha under the topic “Application of Renewable Energy”.<br>7. Patent Published “Solar Powered Moss-Based Outdoor Air Purify with |

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| | air quality monitor". |
| Ms.Priti Bawankule | 1. Published **Journal** paper on "Modeling and performance analysis of 3D structured Rectilinear Rogowski coil using Finite Element Method" in 2025<br>2. Published **IEEE conference** paper on "Analyzing the performance of 3D PCB Rogowski coil in pulsed current Measurement Using Finite Element Method" in 2025 pape id-72<br>3. **Copyright of Poster** on "Impact of Primary conductor Position changes on Mutual Inductance of Rogowski coil" in 2025<br>4. **Reviewer** in *Proceedings of the International Conference on Emerging Technologies & Applications in Electrical Engineering (ETAEE-2024),* December -2024, organized by **NIT Raipur**<br>5. **NPTEL online** courses "Fuzzy sets, logic and system &Application**"** coordinated by **IIT Madras**, January-April 2025. (12 weeks) (**Elite Silver Certificate**)<br>6. Presented a poster on "**High Voltage Equipment Monitoring System based on IoT**" at the National Level poster presentation visualizing connectivity: IoT Poster Expo-2024, Madhav Institute of Technology and Science, Gwalior,(MP) on 19 October 2024.<br>7. Three-month workshop on "**ANSYS Software**" conducted by **IIT Kanpur** from Oct 2024 to Dec 2024<br>8. Attended **One-week FDP** on "Electric Vehicle and charging station Technology for sustainable D evelopment" conducted by National Institute of Technology, Jamshedpur (ATAL Academy)<br>9. **Attended 5day FDP** on "Advances in Material Processing technology" Organized by department of Metallurgical Engineering, OPJindal University Raigarh from 20th Jan to 24th Jan 2025<br>10. Presented a poster on "**High Voltage Equipment Monitoring System based on IoT**" at the National Level poster presentation visualizing connectivity: IoT Poster Expo-2024, Madhav Institute of Technology and Science, Gwalior,(MP) on 19 October 2024 |