

Electrical Engineering Department

Publications (2024-2025)

International Conference

1. **Barnali Kundu**, Dwaipayan Mazumdar, Arpan Das, **Manit Mukhopadhyay**, Ankur Vaivav, Saurav Das, “Integrated MPTA Control Framework for Hybrid Electric Vehicle Performance using Space Vector Pulse Width Modulation” , 2nd IEEE International Conference on Advancements and Key Challenges in Green Energy and Computing (AKGEC2024), organized by Department of Electrical and Electronics Engineering at AKGEC, Ghaziabad, Uttar Pradesh, 21st - 23rd November, 2024 (Paper ID : 461), DOI:[10.1109/AKGEC62572.2024.10869014](https://doi.org/10.1109/AKGEC62572.2024.10869014)
2. **Susovan Dutta**, Bishaljit Paul, **Barnali Kundu**, Raju Basak, Chandan Kumar Chanda, “Uncertainty Realization through Stochastic Scheduling through Energy and Reserve Markets”, IEI-Congress, 20-22 December, 2024. (Paper ID: 230).
3. **Susovan Dutta**, Bishaljit Paul, **Barnali Kundu**, Maitrayee Chakrabarty, Chandan Kumar Chanda, “Deterministic Scheduling of Reserve and Energy Market”, International Conference on Advances in Communication, Medical Electronics and Smart Grid Automation (ACMESGA 2K24), JIS College of Engineering, 22nd - 23rd November, 2024 (Paper ID : 51).
4. **Susovan Dutta**, Reshmi Chandra, Suman Moitra, **Barnali Kundu**, Bishaljit Paul, “Optimal Power trading with stochastic energy sources and storage units”, International Conference on Advances in Communication, Medical Electronics and Smart Grid Automation (ACMESGA 2K24), JIS College of Engineering, 22nd - 23rd November, 2024 (Paper ID : 65).
5. **Susovan Dutta**, Bishaljit Paul, **Barnali Kundu**, Chandan Kumar Chanda, “Market Clearing with Renewable integration, Storage and Network Limits”, 3rd Odisha IEEE Conference, ODICON-2024, Department of Electrical Engineering, Institute of Technical Education and Research (ITER) Siksha 'O' Anusandhan (Deemed to be University) Bhubaneswar, Odisha, India, 8th-9th November, 2024.DOI: 10.1109/ODICON62106.2024.10797545, ISBN Information: Electronic ISBN:979-8-3503-5437-9, Print on Demand(PoD) ISBN:979-8-3503-5438-6 , SCI/WoS/ScopusLink: <https://www.scopus.com/authid/detail.uri?authorId=58182460800>.
6. **Susovan Dutta**, Bishaljit Paul, **Barnali Kundu**, Chandan Kumar Chanda, “Co-optimization of Reserves in Energy Market to mitigate Congestion”, 6th IEEE International Conference on Energy, Power, and Environment, National Institute of Technology Meghalaya, 20th June, 2024 – 22nd June, 2024. DOI: 10.1109/ICEPE63236.2024.10668942, Electronic ISSN: 2832-8973, Print on Demand (PoD) ISSN: 2832-8965.

7. Banshari Deb Majumder, Joy Halder, Dipu Mistry, Tanmoy Sinha Roy, **Barnali Kundu**, “Development of low cost Inventory Management System using UAV”, International Conference on Big Data Analytics in Bioinformatics (DABCon-2024), 21-23 November, 2024, Narula Institute of Technology. DOI:[10.1109/DABCon63472.2024.10919278](https://doi.org/10.1109/DABCon63472.2024.10919278)
8. Subhankar Mukherjee, Suparna Biswas, **Aveek Chattopadhyaya**, Soumik Poddar, “An Efficient Technique for the Diagnosis of Sleep Apnea by Integrating Wavelet Transform and Statistical Analysis”, International Conference on Recent Developments and Applications in Materials Science and Engineering (RDAMSE 2025), Organized by Department of Basic Science & Humanities, Dr. Sudhir Chandra Sur Institute of Technology and Sports Complex (Sur Tech), Kolkata, 30-31 January, 2025, PP. 80-81, ISBN: 978-81-983133-3-1.
9. Arkendu Mitra, Sujoy Bhowmik, Subhra Mukherjee, Pallav Dutta, **Barnali Kundu and Debasree Saha**, “A Universal Design of Flyback Converter for Isolated Gate Drive Power Supply’, 2024 IEEE Flagship International BIT Conference (BITCON-2024) on Next Generation Applications in Green Energy Technology, during 07th -08th December, 2024, BIT Sindri, Dhanbad, India.
10. **Barnali Kundu, Manit Mukhopadhyay**, Dwaipayan Mazumdar, Arpan Das, Ankur Vaivav, Saurav Das, “Integrated MPTA Control Framework for Hybrid Electric Vehicle Performance using Space Vector Pulse Width Modulation”, IEEE EXPLORE DIGITAL LIBRARY, 2024 2nd International Conference on Advancements and Key Challenges in Green Energy and Computing (AKGEC), <https://doi.org/10.1109/AKGEC62572.2024.10869014>, Electronic ISBN:979-8-3503-9017-9
11. **Debasree Saha, Barnali Kundu**, Arpan Das, **Manit Mukhopadhyay**, Srijita Roy Chowdhury, Nilutpal Chowdhury, “AI based Fault Recognition and Classification in Microgrid System”, 1st International Conference on Energy, Environment, and Green Technology (ICEEGT 2025), organized by the Department of Electrical Engineering, NITTTR Kolkata, India. April 3-4, 2025, Lecture Notes in Electrical Engineering.
12. Soumya Kanti Bandyopadhyay, Soumen Biswas, Susanta Dutta, Sidhartha Ghosh, **Aveek Chattopadhyaya**, Sudipta Banerjee, “Effectiveness of CC-FO Hybrid controller over PID, FOTID, 3DOF-PID for LFC of Solar, Wind & EV based multisource system”, 7th International Conference on Signal Processing, Computing and Control (ISPCC2k25), 08. 03.2025, Jaypee University of Information Technology, HP, India. ISBN:979-8-3315-3894-1, DOI: [10.1109/ISPCC66872.2025.11039461](https://doi.org/10.1109/ISPCC66872.2025.11039461)
13. Atanu Maji, Soumen Biswas, **Aveek Chattopadhyaya**, Sanjoy Saha, Sudipta Banerjee, “A Comparative Study of PID, FOPID, and TID Controllers Using Harris Hawk Optimization for Load Frequency Control of Renewable Energy Grids in Deregulated Environments”, 7th International Conference on Signal Processing, Computing and Control (ISPCC2k25), 08. 03.2025, Jaypee University of Information Technology, HP, India, ISBN:979-8-3315-3894-1, DOI: [10.1109/ISPCC66872.2025.11039571](https://doi.org/10.1109/ISPCC66872.2025.11039571)

14. **Aveek Chattopadhyaya**, Aritra Chattopadhyay, Debopoma Kar Ray, Tamal Roy, Surajit Chattopadhyay, “Enhancing Energy Efficiency in Induction Motors Fed by PWM Using Continuous Wavelet Transform (CWT) for Sustainable Development”, International Conference on Sustainable Communication, Machine Intelligence, and Metaverse (SCMIM) 2025, 7-8 February, 2025, MCKV Institute of Engineering, Howrah, India (2nd Best Paper, Sent for Lecture Notes in Springer)

15. Suparna Karmakar, Suparna Biswas, Nanda Dulal Jana, **Aveek Chattopadhyaya**, Bishal Sarkar, “Electroencephalography based Autism Detection: A Comprehensive Review”, Sixth International Ethical Hacking Conference: AI and Law (eHaCON 2025), UEM, 20/02/2025 - 21/02/2025

16. Sumangal Bhaumik, **Aveek Chattopadhyaya**, Jitendra Nath Bera, " SVM and DWT based Detection and Classification of Microgrid Faults using Single Point Measurement", India smart Grid Forum ISGF 25, New Delhi, 20.03.2024 (Will be Published in IEEE Xplore Digital Library)

17. **Suman Ghosh**, **Aveek Chattopadhyaya**, **Shyamal Roy**, Suptasish Sarkar, Soumya kanti Bandyopadhyay , Sumangal Bhaumik “Smart Implementation of an IoT-Based Automatic Phase Selection System”, 2025 3rd International Conference on Smart Systems for applications in Electrical Sciences (ICSSES), Tumakuru, India, Date: 21/03/2025, **Date Added to IEEE Xplore:** 02 June 2025, **ISBN:**979-8-3315-0768-8, **DOI:** [10.1109/ICSSES64899.2025.11009706](https://doi.org/10.1109/ICSSES64899.2025.11009706)

18. ARPAN DAS, **BARNALI KUNDU**, TANISKA SARKAR, **SUMAN GHOSH**, **DEBASREE SAHA**, DR. BASHARI DEB MAJUMDER, “Identification of Dental Diseases Using Convolutional and Regional Convolutional Neural Networks”, IEEE Flagship International Conference 2025 AI-Driven Smart Healthcare for Society 5.0 (AdSoc5.0) 14th – 15th February, 2025 Guru Nanak Institute of Technology, Kolkata, West Bengal, India, **Date Added to IEEE Xplore:** 16 April 2025, **ISBN:**979-8-3315-3634-3, **DOI:** [10.1109/IEEECONF64992.2025.10962868](https://doi.org/10.1109/IEEECONF64992.2025.10962868)

19. Arpan Das, **Debasree Saha**, Shrayasee Gain, Ankur Vaibhav, Payel Chakraborty, Brishti De, “Optimizing Wind Energy Forecasting: A Comparative Study of ANN and Decision Tree Algorithms”, International Conference on Big Data Analytics in Bioinformatics (DABCon-2024), 21-23 November, 2024, Narula Institute of Technology, **Date Added to IEEE Xplore:** 18 March 2025, **ISBN:**979-8-3503-7805-4, <https://doi.org/10.1109/DABCon63472.2024.10919438>