PERSONAL DETAILS

Name: Dr. Soumya Chatterjee
Present Address: 3/66A, Sanghati Colony, P.O: Naktala, Kolkata-700047
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Date and Place of Birth: 03.01.1988, Kolkata (West Bengal, India)
Nationality: Indian
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Google scholar link: https://scholar.google.com/citations?user=fASc5B0AAAAJ&hl=en
Publons profile link: https://publons.com/researcher/1451092/soumya-chatterjee/

Work Experience

Assistant Professor of Electrical Engineering: (National Institute of Technology Durgapur)
(August 2022-Present)
Subjects Taken:
UG:
Electromagnetic Field Theory
Electrical Engineering Materials
Network Theory
Basic Electrical and Electronics Engineering
Digital Signal Processing
PG:
Condition Monitoring and Intelligent Systems

UG: Basic Electrical and Electronics Laboratory, Electrical Machine Design, Electrical Measurement Laboratory, Electric circuits and network laboratory, Embedded Systems Laboratory.

Assistant Professor of Electrical and Electronics Engineering: (Birla Institute of Technology Mesra), Ranchi
(September 2021-July 2022)
Subjects Taken:
UG: High voltage Engineering, Electrical machines.
UG: Laboratory: Basic Electrical Laboratory.

Assistant Professor of Electrical Engineering: (Techno India University), Kolkata
(November 2018-August 2021)
Subjects Taken:
UG: Field Theory, Control Systems, High voltage Engineering, Electrical Engineering Materials.
UG: Laboratory: Power Systems Laboratory.
PG: Advanced High Voltage Engineering (M.Tech-1st Year 1st Semester)

Guest Faculty: Department of Electrical Engineering, (Jadavpur University), Kolkata
(July 2017-Present)
Subjects Taken:
UG: Field Theory, Electrical Engineering Materials, Basic Electrical Technology, Principles of Electrical Engineering-I.
UG: Laboratory: Computer Simlation Laboratory, Electrical Machines Laboratory.

Junior Research Fellow: High Tension Laboratory, Jadavpur University, Kolkata, India
(August 2014-May 2017)
Department: Electrical Engineering
Project: An advanced method for insulation condition monitoring using accelerated dielectric response measurement, DST, Government of India.

Assistant Professor of Electrical Engineering: (Calcutta Institute of Engineering and Management), Kolkata
(March 2014-August 2014)
Department: Electrical Engineering
Subjects Taken:
UG: Electromagnetic Field Theory, Control Systems.
Laboratory: Basic Electrical Laboratory.

(Research Assistant) Technische Universität Darmstadt (Germany)
(March 2013 – June 2013)
Responsibilities:
1. Development of a Simulink Model for the optimum forecasting of Renewable Energy and production planning in any industrial processes.
2. The objective is to maximize the share of renewable energies in the related energy Mix (Solar PV and Wind) and minimize the electricity cost considering various constraints such as forecast and actual demand, current price, different time horizons, etc.

Electrical Power Distribution Engineer: (Calcutta Electric Supply Corporation Limited Kolkata)
(July 2009 –August 2011)
Responsibilities:
1. Underground Power Transmission and Distribution project including laying and commissioning of 132 kV XLPE Cable Circuit
2. MV and HV cable jointing, termination
3. High voltage Transformer Erection 15-20 MVA, 55 MVA
4. Cable fault location
5. Condition monitoring

Academic Qualification

Jadavpur University, Kolkata:
Doctor of Philosophy (Ph.D.) in Electrical Engineering (April 2016-September 2019)
GPA: 10/10, First Class.
Thesis Title: Studies on measurement time reduction techniques for insulation diagnostics in high voltage equipment.
Date of registration: 18.04.2016
Registration Number: D-7/E/195/16
Date of Thesis Submission: 14th March 2019.
Date of Thesis defence: 13th September 2019.
Date of Degree Awarded: 1st October 2019.
Supervisor(s): Prof. Sivaji Chakravorti and Prof. Biswendu Chatterjee.

Technische Universität Darmstadt (Germany):
Master of Science (MSc), Electrical Power Engineering, (October 2011 –January 2014)
GPA: 2.51, Good.
Thesis Title: Investigations on the influence of viscosity, conductivity and permittivity of water droplet on the partial discharge (PD) inception voltage of polymeric insulators in the presence of water droplets.
Supervisor(s): Prof. Volker Hinrichsen and Dr. M.H. Nazemi.

Jadavpur University, Kolkata:
Bachelor of Engineering (B.E.), Electrical Engineering, (July 2005 – May 2009)
GPA: 7.89/10, First class

Higher secondary examination, South Point High School, Kolkata

Year of passing: 2005
Subjects: Science
Marks: 916/1000 (91.6%), First Division

Madhyamik examination, Nava Nalanda High School, Kolkata
Year of passing: 2003
Subjects: General, Additional Mathematics
Marks: 742/800 (92.75%), First Division

Research Interest:

Insulation Diagnosis, Condition monitoring of high voltage equipment, Graph theory and complex network analysis, Signal and image processing applications in condition monitoring.

Sponsored Research/Consultancy Projects:

Sl no	Project Title	Funding Agency	Amount (Rs in Lakhs)	Role	Duration	Status	Project Type
1	Design of non-contact voltage detector for overhead transmission Lines up to 765 kV	Megger Instruments India Limited	8.08	PI	2024-25	**Completed**	Consultancy
2	Online condition monitoring solution for transformer bushings and coupling capacitors for online partial discharge monitoring of generators.	National Hydel Power Corporation (NHPC) Limited	353.26	Co-PI	2024-2028	**Ongoing**	R & D
3	Development of lightning arrester leakage current tester	Megger Instruments India Limited	17.8	PI	2025-26	**Ongoing**	Consultancy
4	Ultra-High Frequency Partial Discharge Sensor for Gas Insulated Systems.	M/S Quantum Point Pvt. Ltd.	0.35	Co-PI	2024-25	**Completed**	Consultancy

Research Supervision:

M. Tech Thesis supervision:

No	Student Name	Title of the Thesis	Co-supervisor	Status	Year	Affiliation
1	Mr. Sayanjit Singha Roy	Detection and Classification of Partial Discharge Sources for Condition Monitoring of Electrical Insulation Employing Visibility Graph Theory	-	Complete	2021	Techno India University
2	Mr. Sudip Modak	Discrimination of Focal and Non-focal Epileptic EEG Signals Employing Cross	-	Complete	2021	Techno India University

		Wavelet transform and Deep Learning					
3	Mr. Kaniska Samanta	Modified Stockwell Transform with Optimum Selection of Window Parameters for Improved Time-frequency Analysis of Bio-potentials	-		Complete	2021	Techno India University
4	Mr. Soudip Pal	Studies on islanding and non-islanding events in grid connected solar PV system	Dr. Ratan Mondal, School of Energy Studies, Jadavpur University		Complete	2021	Jadavpur University
5	Mr. Samad Sohail	Study on aging characteristics of Insulation system	-		Complete	2022	BIT Mesra
6.	Mr. Prasanth Kumar Balpande	Defect Detection of Silicone Rubber (SiR) Insulators Using Partial Discharge Measurement	-		Complete	2024	NIT Durgapur
7.	Mr. Binayak Sahoo	Development of non-contact high voltage detector for overhead transmission line	-		Complete	2025	NIT Durgapur
8.	Mr. Abhisek Bairwa	Measurement of Dielectric Properties of Mineral Oil-Natural Ester Based Hybrid Insulation for Transformers	-		Ongoing	2026	NIT Durgapur

PhD Thesis supervision (05):

No	Student Name	Title of the Thesis	Other Supervisor	Registration Details	Status	Role
1	Mrs. Ananya Chakraborty	Detection and Classification of Transient Disturbances in Power System using Advanced Signal processing and Machine Learning Techniques	Dr. Ratan Mondal, School of Energy Studies, Jadavpur University	Registered in Jadavpur University.	Awarded on 10th September 2024.	Co-supervisor
2	Mr. Subhajit Mukherjee	Impact on the Power System with a Large Penetration of Renewable Energy Generation	Dr. Ratan Mondal, School of Energy Studies, Jadavpur University	Registered in Jadavpur University.	Thesis Submitted	Co-supervisor
3	Mr. Piklu Das	An Intelligent Partial Discharge Monitoring System for Condition Monitoring of High Voltage Power Apparatus	Prof. Chiranjib Koley, Electrical Engineering Department, NIT Durgapur	Registered in NIT Durgapur.	Ongoing	Co-supervisor

4	Mr. Sudip Modak	Studies on Visibility Graph-Based Analysis and Detection of Biopotential Signals	Dr. Suman Halder, Electrical Engineering Department, NIT Durgapur	Registered in NIT Durgapur.	Ongoing	Co-supervisor
5	Mr. Brahma Swarup Laha	Condition Monitoring of Mineral Oil-Ester Oil Blended Oil-paper Insulation for Power Transformers	-	Registered in NIT Durgapur.	Ongoing	Sole Supervisor

Publications

Journal Publications: 50

IEEE Transactions/Journals/Letters (36)

1. S. S. Roy, A. Paramane, J. Singh, **S. Chatterjee**, "Characterization and Identification of Electrical Tree Growth Stages Inside High-Voltage Cable Insulation," **IEEE Transactions on Instrumentation and Measurement**, *(In press)*, 2025. (0.4)
2. S. Modak, K. Samanta, **S. Chatterjee**, and S. Halder, "EEG Rhythm-Based Functional Brain Connectivity for Automated Detection of Schizophrenia Employing Deep Learning" **IEEE Transactions on Instrumentation and Measurement**, (*In Press*), 2025.
3. S.S. Roy, A. Paramane, B. Ganguly, A.K. Das, S. Paul and **S. Chatterjee**," A Remote Diagnostic Framework with Improved Intermediate Hydrophobicity Grade Detection" **IEEE Transactions on Industry Applications**, (*In Press*), 2025. (0.4)
4. S. Das, A. Paramane, **S. Chatterjee** and P. Mishra," Recurrence Plot-aided Deep Learning Framework for Condition Monitoring of Transformer Insulation Using Fourier Transform Infrared Spectroscopy," **IEEE Transactions on Industry Applications**, vol. 60, no. 6, pp. 8393-8402, 2024. (0.66)
5. P. Das, **S. Chatterjee** and C. Koley, "Recurrence Plot Aided Partial Discharge Detection Framework Employing HFCT Sensor and Customized Convolutional Neural Network," **IEEE Transactions on Dielectrics and Electrical Insulation**, vol. 31, no. 6, pp. 2947-2955, 2024. (1)
6. S. Das, A. Paramane, **S. Chatterjee** and M. Maharana, "Quantification of Ageing State of Insulating Oils Using FTIR Spectra and Deep Learning," **IEEE Transactions on Dielectrics and Electrical Insulation**, vol. 31, no. 4, pp. 1936-1943, 2024. (0.66)
7. R. Das, A.K. Das, B. Chakraborty, **S. Chatterjee,** S. Dalai, B. Chatterjee and K. Bhattacharya, "Mathematical Morphology Aided Bi-directional Long Short-term Memory Network Based Partial Discharge Pulse Sequence Classification," **IEEE Transactions on Plasma Science**, vol.51, no.12, pp.3454-3461, 2023. (0.33)
8. N. Modal, **S. Chatterjee**, N. Haque, S. Dalai, B. Chatterjee and S. Chakravorti, "Sensing the Thermal Ageing of Rotating Machine Insulation Using a Unique Parameter Extracted from Dielectric Spectroscopy Measurement", **IEEE Sensors Journal**, vol. 23, no. 20, pp. 24637-24644, 2023. (0.4)
9. S. S. Roy, A. Paramane, J. Singh, **S. Chatterjee**, Z. Hong and X. Chen, "Characterization and Identification of Electrical Tree Growth Stages Inside High-Voltage Cable Insulation," **IEEE Transactions on Instrumentation and Measurement**, vol. 72, pp. 1-9, 2023, Art no. 6007809, DOI: 10.1109/TIM.2023.3295017. (0.4)
10. S. Das, A. Paramane, U. Mohan Rao, **S. Chatterjee** and K. Sathish Kumar, "Corrosive Dibenzyl Disulfide Concentration Prediction in Transformer Oil Using Deep Neural Network," **IEEE Transactions on Dielectrics and Electrical Insulation**, vol.30, no.4, pp.1608-1615, 2023. (0.5)
11. R. Das, A.K. Das, **S. Chatterjee,** S. Biswas, A.K. Pradhan, S. Dalai, B. Chatterjee and K. Bhattacharya, "A Novel Deep Learning Framework to Identify and Locate Single and Multiple Partial Discharge Events," **IEEE Transactions on Dielectrics and Electrical Insulation**, vol. 30, no. 6, pp. 2633-2641, 2023. (0.285)
12. S. S. Roy, A. Paramane, J. Singh, A. K. Das, **S. Chatterjee** and X. Chen, "Automated Space Charge Classification Inside ±500 kV HVDC Cable Insulation Using Fusion of Super pixel and Deep Features for Remote Condition Assessment", **IEEE Transactions on Instrumentation and Measurement**, vol. 72, pp. 1-8, 2023, Art no. 2510108, DOI: 10.1109/TIM.2023.3266523.

13. S. Das, A. Paramane, **S. Chatterjee** and U. M. Rao, "Sensing Incipient Faults in Power Transformers Using Bi-directional Long Short-term Memory Network", **IEEE Sensors Letters,** vol. 7, no.1, 2023. Article Sequence Number: 7000204.

14. S. S. Roy, A. Paramane, J, Singh, **S. Chatterjee** and A. K. Das, "Accurate Sensing of Insulator Surface Contamination Using Customized Convolutional Neural Network", **IEEE Sensors Letters**, vol.7, no.1, 2023, Article Sequence Number: 700304.

15. S. Das, A. Paramane, **S. Chatterjee** and U. M. Rao, "Accurate Identification of Transformer Faults from Dissolved Gas Data Using Recursive Feature Elimination Method", **IEEE Transactions on Dielectrics and Electrical Insulation**, vol.30, no.1, pp. 466-473, 2023.

16. S. S. Roy, A. Paramane, J. Singh, X. Chen, F. Meng, C. Dai, A. K. Das, **S. Chatterjee** and Y. Tanaka, "Remote Condition Monitoring of HVDC Cable Insulation Using Deep Learning-Aided Space Charge Classification", **IEEE Transactions on Dielectrics and Electrical Insulation**, vol. 30, no. 1, pp. 377-384, 2023.

17. A. Das, **S. Chatterjee**, A.K. Pradhan, S. Dalai and B. Chatterjee, "Estimation of Moisture Content in XLPE Cable Insulation using Electric Modulus", **IEEE Transactions on Dielectrics and Electrical Insulation**, vol. 29, no. 3, pp. 1030-1037, 2022.

18. S. S. Roy, **S. Chatterjee,** S. Roy, P. Bamane, A. Paramane, U. M. Rao and M. T. Nazir "Accurate Detection of Bearing Faults Using Difference Visibility Graph and Bi-Directional Long Short-Term Memory Network Classifier," **IEEE Transactions on Industry Applications**, vol. 58, no. 4, pp. 4542-4551, 2022.

19. **S. Chatterjee**, S.S. Roy, A. Chatterjee, B. Ganguly and S. Paul, "Recognition of Hydrophobicity Class of Polymeric Insulators Employing Residual Morphological Neural Network and Granulometry Based Image Analysis", **IEEE Transactions on Instrumentation and Measurement**, vol. 71, pp. 1-9, 2022.

20. N. Haque, A. Jamshed, K. Chatterjee and **S. Chatterjee**, "Accurate Sensing of Power Transformer Faults from Dissolved Gas Data using Random Forest Classifier Aided by Data Clustering Method", **IEEE Sensors Journal**, vol. 22, no. 6, pp. 5902-5910, 2022.

21. S. Chowdhury, N. Haque, **S. Chatterjee**, A. K. Pradhan and S. Chakravorti, "Temperature Compensation of Frequency Domain Spectroscopy Measurement for Condition Assessment of Oil-Paper Insulation," **IEEE Transactions on Dielectrics and Electrical Insulation**, vol. 29, no. 1, pp. 255-263, 2022.

22. A. K. Das, **S. Chatterjee**, S. Dalai and B. Chatterjee, "Cross Spectrum Aided Surface Condition Assessment of Metal Oxide Surge Arrester Employing Convolutional Neural Network", **IEEE Transactions on Dielectrics and Electrical Insulation**, vol.28, no.6, pp.2134-2143, 2021.

23. S. Modak, S. S. Roy, R. Bose and **S. Chatterjee**, "Focal Epileptogenic Area Recognition Employing Cross EEG Rhythm Spectrum Images and Convolutional Neural Network", **IEEE Sensors Journal**, vol. 21, no.20, pp.23335-23343, 2021.

24. S. Maur, **S. Chatterjee,** N. Haque, P. Preetha, S. Dalai and B. Chatterjee, "Sensing the Thermal Aging of Epoxy Alumina Nanocomposites Using Electric Modulus", **IEEE Sensors Journal,** vol.21. no.10, 12236-12244, 2021.

25. S. S. Roy and **S. Chatterjee,** "Partial Discharge Detection Framework Employing Spectral Analysis of Horizontal Visibility Graph", **IEEE Sensors Journal,** vol.21. no.4, pp.4819-4826, 2021.

26. S. S. Roy and **S. Chatterjee,** "Complex Network Aided Partial Discharge Signal Recognition Framework Employing Visibility Graph", **IEEE Sensors Letters**, vol.4, no.8, pp.1-4, 2020, Article Sequence Number: 7003104.

27. **S. Chatterjee,** S. S. Roy, K. Samanta and S. Modak, "Sensing Wettability Condition of Insulation Surface Employing Convolutional Neural Network", **IEEE Sensors Letters,** vol.4, no.7, pp.1-4, 2020, Article Sequence Number: Article Sequence Number: 5501104.

28. **S. Chatterjee,** N. Haque, A.K. Pradhan, S. Dalai and B. Chatterjee, "Estimation of Conductivity at Reduced Time for Sensing Moisture Content of Oil-Paper Insulation", **IEEE Sensors Journal,** vol.20. no.21, pp.12999-13006, 2020.

29. R. Bose, K. Samanta, S. Modak and **S. Chatterjee**, "Augmenting Neuromuscular Disease Detection Using Optimally Parameterized Weighted Visibility Graph", **IEEE Journal of Biomedical and Health Informatics**, vol. 25, no. 3, pp. 685-692, 2021.

30. S. S. Roy, S. Dey and **S. Chatterjee**, "Autocorrelation Aided Random Forest Classifier Based Bearing Fault Detection Framework", **IEEE Sensors Journal**, vol.20. no.18, pp. 10792-10800, 2020.

31. S. S. Roy, K. Samanta, S. Modak, **S. Chatterjee** and R. Bose, "Cross Spectrum Aided Deep Feature Extraction Based Neuromuscular Disease Detection Framework", **IEEE Sensors Letters**, vol.4, no.6, pp.1-4, 2020, Article Sequence Number: 6000704.

32. K. Samanta, **S. Chatterjee** and R. Bose, "Cross Subject Motor Imagery Tasks EEG Signal Classification Employing Multiplex Weighted Visibility Graph and Deep Feature Extraction", **IEEE Sensors Letters**, vol.4, no.1, pp.1-4, 2020, Article Sequence Number: 7000104.

33. **S. Chatterjee,** S. Dalai, S. Chakravorti and B. Chatterjee, "Accelerating Moisture Content Sensing of Oil impregnated paper Insulation Using Frequency Modulated Square Wave Excitations", **IEEE Sensors Letters,** vol.3, no.7, pp.1-4, 2019, Article Sequence Number: 5500504.

34. **S. Chatterjee,** K. Samanta, N. Ray Choudhury and R. Bose, "Detection of Myopathy and ALS Electromyograms Employing Modified Window Stockwell Transform", **IEEE Sensors Letters**, vol.3, no.7, pp.1-4, 2019, Article Sequence Number: 7001204.

35. **S. Chatterjee,** A.K. Pradhan, S. Dalai, S. Chakravorti and B. Chatterjee, "A Non-linear Model for Sensing Moisture Content in Transformers at Reduced Time", **IEEE Sensors Journal**, vol.19, no.12, pp.4639-4646, 2019.

36. **S. Chatterjee,** S. Dalai, S. Chakravorti and B. Chatterjee, "Use of Chirp Excitations for Frequency Domain Spectroscopy Measurement of Oil-paper Insulation," **IEEE Transactions on Dielectrics and Electrical Insulation**, vol.25, no.2, pp. 1103–1111, 2018.

IET Journals (8)

37. A.K. Das, S. Deb, **S. Chatterjee,** B. Chatterjee and S. Dalai, "Convolutional neural network and Bi-directional long short memory Hybrid Deep Network Aided Infra-Red Image Classification Framework for Non-contact Monitoring of Overhead Insulators", **IET Signal Processing**, vol. 16, no. 6, pp. 722– 732, 2022.

38. **S. Chatterjee,** S. S. Roy, R. Bose and S. Pratiher, "Feature Extraction from Multifractal Spectrum of Electromyograms for Diagnosis of Neuromuscular Disorders", **IET Science, Measurement and Technology**, vol. 14, no.7, pp. 817-824, 2020.

39. **S. Chatterjee,** "Detection of Focal Electroencephalogram Signals Using Higher Order Moments in EMD-TKEO domain", **IET Healthcare Technology Letters**, vol.6, no.3, pp.64-69, 2019.

40. R. Bose, S. Pratiher, and **S. Chatterjee**, "Detection of Epileptic Seizure Employing a Novel Set of Features Extracted from Multifractal Spectrum of Electroencephalogram signals", **IET Signal Processing**, vol.13, no.2, pp. 157–164, 2019.

41. **S. Chatterjee,** S. Pratiher, and R. Bose, "Multifractal Detrended Fluctuation Analysis Based Novel Feature Extraction Technique for Automated Detection of Focal and Non-Focal Electroencephalogram Signals", **IET Science, Measurement & Technology**, vol.11, no.8, pp. 1014–1021, 2017.

42. **S. Chatterjee,** N. Ray Choudhury and R. Bose, "Detection of Epileptic Seizure and Seizure-free EEG Signals Employing Generalized S-Transform", **IET Science, Measurement & Technology**, vol.11, no.7, pp. 847–855, 2017.

43. **S. Chatterjee,** A.K. Pradhan, S. Dalai, B. Chatterjee and S. Chakravorti, "Reducing Frequency Domain Spectroscopy Measurement Time for Condition monitoring of Oil-Paper Insulation using Non-sinusoidal Excitations", **IET Science, Measurement & Technology**, vol.11, no.2, pp. 204–212, 2017.

44. A. K. Pradhan, **S. Chatterjee,** A. Banik, S. Dalai and B. Chatterjee, **"**Condition Assessment of Outdoor Porcelain Insulator based on Dielectric Dissipation Factor Evaluated from Non-linear Equivalent Circuit**"**, **IET Science, Measurement & Technology**, vol.10, no.8, pp. 866–873, 2016.

Wiley Journals (1)

45. K. Samanta, **S. Chatterjee** and R. Bose, "Neuromuscular Disease Detection Based on Feature Extraction from Time-frequency Images of EMG signals Employing Robust Hyperbolic Stockwell Transform", **International Journal of Imaging Systems and Technology, Wiley,** vol.32, no.4, pp. 1251–1262, 2022.

Springer Journals (8)

46. A. Chakraborty**,** S. Chatterjee and R. Mandal, "Power Quality Recognition in Noisy Environment Employing Deep Feature Extraction from Cross Stockwell Spectrum Time-Frequency Images", **Electrical Engineering**, Springer, vol. 106, pp. 443–458, 2024. (1)

47. A. Chakraborty, **S. Chatterjee** and R. Mandal, "Time-Frequency Image Representation Aided Deep Feature Extraction-Based Grid connected Solar PV Fault Classification Framework**", Applied Solar Energy, Springer**, vol.60, no.2, 2024. (1)

48. S. Mukherjee, **S. Chatterjee** and R. Mandal, "Comparison of Harmonics Mitigation Techniques for Grid-Connected PV System and Introduction of a Concept of Hybrid Filter", **Applied Solar Energy, Springer,** vol.60, no.1, 2024. (1)

49. S. Mukherjee, **S. Chatterjee** and R. Mandal, "Deep Learning Aided Power Quality Disturbance Detection with Improved Time-frequency Resolution Employing Adaptive Superlet Transform", **Electrical Engineering,** (In press) 2025. (1).

Elsevier Journals (1)

50. D. Dey, S. Das, A. Pal, S. Dey, C. K. Raul, P. Mandal, A. Chatterjee, S. Chatterjee and M. Ghosh, "Improved machine learning framework for prediction of phases and crystal structures of high entropy alloys", **Journal of Alloys and Metallurgical Systems**, vol. 9, no.100144, 2025.

Conference Proceedings: IEEE/IET (48)

1. **S. Chatterjee** and A. Baral, "Hydrophobicity Grade Detection of Polymeric Insulator Using Image Visibility Graph", **Proceedings of 7th IEEE International Conference on Condition Assessment Techniques in Electrical Systems (CATCON)**, Kolkata, West Bengal, India, 2024.
2. **S. Chatterjee,** S. Das and A. K. Das, "Hydrophobicity Grade Detection of Polymeric Insulator Using Image Visibility Graph", Proceedings of **7th IEEE International Conference on Condition Assessment Techniques in Electrical Systems (CATCON),** Kolkata, West Bengal, India, 2024.
3. S. Paul, B. Ganguly and **S. Chatterjee**, "Nesterov-Type Accelerated ADMM (N-ADMM) with Adaptive Penalty for Three-Phase Distributed OPF under Non-Ideal Data Transfer Scenarios", **Proceedings of 3rd IEEE International Conference on Smart Technologies for Power, Energy and Control (STPEC)**, Bhubaneswar, Orissa, India, 2023. (0.2)
4. S. S. Roy, A. Paramane, B. Ganguly, A. Das, S. Paul and **S. Chatterjee**, "Image Visibility Patch Aided Hydrophobic Class Detection of Silicone Rubber Insulators Employing Bi-LSTM Network", Proceedings of **3rd IEEE International Conference on Smart Technologies for Power, Energy and Control (STPEC)**, Bhubaneswar, Orissa, India, 2023. (0.08)
5. S. Das, S. Kumari, A. Paramane and **S. Chatterjee**, "Deep Learning Aided Classification of Ageing Condition of Natural Ester Oils Using FTIR Analysis", **Proceedings of IEEE 3rd International Conference on Sustainable Energy and Future Electric Transportation (SEFET),** Bhubaneswar, Orissa, India, 2023. (0.13)
6. S. Gorre, P. Mishra, M. Agarwal, A. Paramane and **S. Chatterjee**, "Effect of Transformer oil on Silicone Rubber Nano-Micro Composites", **Proceedings of 8th International Conference for Convergence in Technology**, Pune, Maharashtra, India, 2023. (0.1)
7. A. Chakraborty, **S. Chatterjee** and R. Mandal, "Autocorrelation Aided Islanding Detection Using Bi-directional Long-short Type Memory Network," **Proceedings of 2nd International Conference on Power Electronics and Energy (ICPEE)**, Bhubaneswar, India, 2023.
8. P. Soni, D. Mondal, **S. Chatterjee** and P. Mishra, "Deep Learning Technique for Recurrence Plot-Based Classification of Power Quality Disturbances", Proceedings of **3rd IEEE International Power and Renewable Energy Conference (IPRECON)**, Karunagappally, Kerala, India, 2022.
9. S. Modak, **S. Chatterjee** and S. Roy, "Deep Learning-Based Discrimination of Focal Electroencephalogram Signals Employing Cross Stockwell Transform", Proceedings of **6th IEEE International Conference on Condition Assessment Techniques in Electrical Systems (CATCON),** Durgapur, West Bengal, India, 2022.
10. R. Das, A. K. Das, **S. Chatterjee**, S. Biswas, S.Dalai, B.Chatterjee and K. Bhattacharyya, "Time-frequency Representation aided Deep Transfer Learning Approach for Localization and Identification of Single and Multiple Partial Discharge Events", Proceedings of **6th IEEE International Conference on Condition Assessment Techniques in Electrical Systems (CATCON)**, Durgapur, West Bengal, India, 2022.
11. S. S. Roy, A. Paramane, J. Singh, **S. Chatterjee** and A. K. Das, "Hydrophobicity Grade Detection of Polymeric Insulator Using Image Visibility Graph", Proceedings of **6th IEEE International Conference on Condition Assessment Techniques in Electrical Systems (CATCON)**, Durgapur, West Bengal, India, 2022.
12. S. Das, A. Paramane, **S. Chatterjee** and U.M. Rao, "Recursive Feature Elimination Aided Accurate Fault Classification in Power Transformers Using Dissolved Gas Data", **Proceedings of 6th IEEE International Conference on Condition Assessment Techniques in Electrical Systems (CATCON)**, Durgapur, West Bengal, India, 2022.
13. N. Modal, **S. Chatterjee**, N. Haque, S. Dalai, B. Chatterjee and S. Chakravorti, "Estimation of Epoxy-Mica Insulation Ageing Through Havriliak-Negami Relaxation Model on Dielectric Modulus Spectrum", **Proceedings of 6th IEEE International Conference on Condition Assessment Techniques in Electrical Systems (CATCON)**, Durgapur, West Bengal, India, 2022.

14. S. Maur, B. Chakraborty, A. K. Pradhan, **S. Chatterjee**, S. Dalai and B. Chatterjee, "Estimation of Thermal Aging of Epoxy-Alumina Nano-Composites for Dry-Type High Voltage Insulation Using Dielectric Modulus", **Proceedings of 6th IEEE International Conference on Condition Assessment Techniques in Electrical Systems (CATCON),** Durgapur, West Bengal, India, 2022.

15. B. Chakraborty, S. Maur, A. K. Pradhan, **S. Chatterjee**, S. Dalai and B. Chatterjee, "Estimation of Paper Moisture within Vegetable Oil based Hybrid Nanofluid Impregnated Paper Using Capacitance Ratio", **Proceedings of 6th IEEE International Conference on Condition Assessment Techniques in Electrical Systems (CATCON)**, Durgapur, West Bengal, India, 2022.

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6. S. Mukherjee, R. Mandal and **S. Chatterjee**, "Comparative study and performance analysis for a static and Rotating Inverter of PV integrated Power System", **Lecture Notes in Electrical Engineering, Springer Nature, Switzerland, 2023**, Electronic ISSN: 1876-1119, Print ISSN: 1876-1100.

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   (i) IEEE Transactions on Dielectrics and Electrical Insulation
   (ii) IEEE Transactions on Power Delivery
   (iii) IEEE Journal of Biomedical and Health Informatics
   (iv) IEEE Sensors Letters
   (v) IEEE Transactions on Neural Systems and Rehabilitation Engineering
   (vi) IEEE Sensors Journal
   (vii) IEEE Systems Journal
   (viii) IEEE Access Journal
   (ix) IEEE Transactions on Industry Applications
   (x) IEEE Industry Applications Magazine
   (xi) IET Signal Processing
   (xii) IET Generation, Transmission and Distribution
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