

CV of DR. SANDIP BORDOLOI

Name: Dr. Sandip Bordoloi

Designation: Associate Professor and HoD (i/c)

Department of Electrical Engineering

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Educational Qualifications:

Sl. No.	Examination Passed	Year of passing	Board / Council / University	Specialization
1	HSLC/10 th Std.	2002	SEBA	-
2	HSSLC/10+2 Std.	2004	AHSEC	Science
3	Degree (B.E)	2008	Gauhati University	Instrumentation Engineering
4	Master's Degree M.Tech	2010	Tezpur University	Bioelectronics
5	Ph. D. (Please Specify)	2015	Assam Don Bosco University	Electrical and Electronics

Languages known:

Assamese, English, Hindi (Read, Write, Speak)

Academic/ Administrative Experience:

1. 14+ years of Teaching/ Research and Administrative Experience

2. 5+ years of Experience as HoD(i/c)
3. Coordinators and Members of different bodies at Institute level

List of Publications:

1. Optimizing Diesel Generator Allocation Using Genetic Algorithm, Sandip Bordoloi, Mohd Azizuddin Ahmed, Research Conclave 2024- GCU Assam, 28 November, 2024. <i>Best Paper presentation awarded for this paper.</i>
2. Optimal Allocation of Generating Sources in Hybrid Generation Networks, Ankur Kalita, Kaustav Medhi, Jyotimay Das, Suman Barman, Sandip Bordoloi, Research Conclave 2024- GCU Assam, 28 November, 2024
3. Load-DG Set Allocation for Carbon Reduction and Maximum Utilization, Sandip Bordoloi, ICESCC 2024, India, 7-8 November, 2024.
4. Phase Change Materials in Photovoltaics: A comprehensive review on temperature regulation and efficiency enhancement, Pallavi Roy, Sandip Bordoloi, Sanjib Hazarika and Bani Kanta Talukdar, ICEESRE 2024, 24-25 October, 2024
5. Transitioning to clean energy: Assessing the impact of Power Plant Emissions on Oral Cancer, Mayuri Sarmah Mazinder, Sandip Bordoloi, ICEESRE 2024, 24-25 October, 2024
6. Optimizing Solar energy output: key insight from Statistical Analysis of a PV system located in Humid Subtropical Region, Sandip Bordoloi, Pallavi Roy, Sanjib Hazarika, Prithvi Narayan Sinha, ICEESRE 2024, 24-25 October, 2024
7. Enhancing Energy Efficiency through Photovoltaic -Thermoelectric Hybrid System: A Review and Future Perspectives, Pallavi Roy, Sandip Bordoloi, and Bani Kanta Talukdar, Book chapter – 13, EcoRevolution: Exploring sustainable solutions by Duliajan College Science Council, Edition 1, pp-72-79, Year-2024
8. Solar Energy Adoption and Its Impact on Carbon Emissions Reduction: An Analysis of the Amguri Solar Park Project, Sandip Bordoloi, Pallavi Roy, Book chapter – 15, EcoRevolution: Exploring sustainable solutions by Duliajan College Science Council, Edition 1, pp-86-92, Year-2024
9. Design and Development of a standalone biomedical system to determine patient health condition using Machine Learning (pp 1-5), Mohd. Azizzudin, Sandip Bordoloi, SARC International Conference, 2024

10. Development of a Multiple Sensor Based Instrumentation System for Degradation Measurement of Lubricating Oil. *Sandip Bordoloi and Rashmi Rekha Roy*; 2021 2nd International Conference for Emerging Technology (INCET); Belgaum, India. May 21-23, 2021; DOI: 10.1109/INCET51464.2021.9456320
11. Simulation and Analysis of Green House Based Agri-Voltaic System Using Energy 3D Software *Sandip Bordoloi*; *ADB- Journal of Engineering Technology*; Link: <https://journals.dbuniversity.ac.in/ojs/index.php/AJET/article/view/2542/pdf>
12. Mathematical Analysis of Dispersion with optical power of a Bare, Bent and Tapered Multimode Optical fibre sensor using 3 term Sellmeier equation; *S. Bordoloi*; 2020 International Conference on Computational Performance Evaluation (ComPE); DOI-10.1109/ComPE49325.2020.9199991
13. Mathematical and Experimental analysis of degradation of lubricating oil in four stroke Motorbikes *S. Bordoloi*; *Journal of Automation and Automobile Engineering*
14. A Study on Effect of Temperature on Lubricating Oil Using Bare and Bent Optical Fibre Sensor: A Theore and Experimental Approach, *Sandip Bordoloi and Shakuntala Laskar*, International Journal of Computer Sciences and Engineering, 2016
15. Development of an instrumentation system for measurement of degradation of lubricating oil using optical fiber sensor, *Shakuntala Laskar and Sandip Bordoloi*; *Optical Fiber Technology*, 2016
16. Application of Bare, Tapered and Bent Multimode Optical Fibre Refractometer for Measuring the Concentration of Glucose Solution; *Prerana Baruah and Sandip Bordoloi*; *AJET*, 2015
17. Microcontroller-based instrumentation system for measurement of refractive index of liquid using bare, tapered and bent fibre as sensor. *Shakuntala Laskar and Sandip Bordoloi*; *IET Optoelectronics*, 2013
18. Monitoring of Moisture in Transformer Oil Using Optical Fiber as Sensor, *Shakuntala Laskar and Sandip Bordoloi*; *Journal of Photonics*, 2013
19. Transformer oil moisture monitoring instrumentation system using optical fibre sensor, *Sandip Bordoloi, Shakuntala Laskar and Durlav Hazarika*; *Indian Journal of Science and Technology*, 2012.
20. . Direct electrochemistry of cytochrome P450 monooxygenase from *Aspergillus terreus* immobilized on MWCNT-NF/PEI modified glassy carbon electrode, *Preety Vatsyayan, Mitun Chakraborty, Sandip Bordoloi and Pranab Goswami*; *Electroanalytical Chemistry*, 2010
21. Large catalase based bioelectrode for biosensor applications, *Preety Vatsyayan, Sandip Bordoloi and Pranab Goswami*; *Biophysical Chemistry*, 2010
22. Fabrication Of Carbon Nanotube-Based Cholesterol Oxidase Bioelectrode For Biosensor And Biofuel Cell Application.; *Sandip Bordoloi, Madhuri Das and Pranab Goswami*; *ICANN 2009, India*

Research Experience:

- Doctoral thesis guided : 02 ongoing PhD students under ASTU, 1 from GCU
- Research & Consultancy Projects:

SI No.	Title & Discipline	Agency	Period
1	Development of optical fibre sensor to measure degradation and breakdown of non-polar hydrocarbon oil; Instrumentation	ASTEC	2018-2021
2	Smart water quality monitoring system with reference to DeeporBeel using IoT and Artificial Intelligence	TEQIP III	2019-21
3	Development of a Handheld Chlorophyll meter for determination of chlorophyll content index for agricultural purpose	TEQIP III	2019-21
4	Detection and classification of cancer cell	TEQIP III	2019-21

Membership of Professional bodies: ISTE, IAENG, UNESCO

Award, Fellowship & Recognition: NEC Scholarship holder for the year 2008-2009, 2009-2010

Date: January 1, 2025

Sandip Bordoloi