

Curriculum Vitae

Dr. Madhabi Ganguly
Assistant Professor
Department of Electronics
West Bengal State University
Barasat, Kolkata-700124

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Qualifications:

Ph.D. in Engineering, Jadavpur University

M.E. in Electronics & Tele-Communication Engineering, Specialization in Control System, Jadavpur University

B.E. (Bachelor in Electrical Engineering), Bengal Engineering and Science University

Teaching Experience:

At PG level in West Bengal State University, Dept. of Electronics

At UG level in Jadavpur University, as Guest Faculty in Dept. of Electronics & Tele-Communication Engineering

At PG level in Jadavpur University, as Guest Faculty in Dept. of Physics

At UG level in Central Calcutta Polytechnic (CCP) as a Guest Faculty

Courses Taught:

Semiconductor Devices, Mathematical Methods in Electronics, Signal & Control System, Microprocessor & Microcontroller, Digital Signal Processing.

Area of Research:

Quantum Dot Image Processing, Low dimensional Devices, Genomic Signal Processing.

Achievements:

State Government Departmental Fellowship, 2003

Council of Scientific and Industrial Research (CSIR), 2006

Academic-Administrative responsibilities: Past and Present:

Coordinator, Dept. of Electronics, WBSU, 2018- 2021(July)

Member (Vice Chancellor's Nominee) in the Governing body, Mrinalini Datta Mahavidyapith

Convener 2012-16, 2018-21(July) Undergraduate Board of Studies (UG-BOS) in Electronic Science, WBSU

Convener 2018-21(July) Postgraduate Board of Studies in Electronic Science (PG-BOS), WBSU

Convener 2018-21(July) Board of Research Studies (BRS) in Dept. of Electronics, WBSU

Member UG-BOS, PG-BOS, BRS

Member UG-BOS (2021), Ramakrishna Mission Vivekananda Centenary College, WBSU

Member PG Admission Committee 2018, 2019

Number of Ph.D. scholars under supervision:

Ongoing: 1

Additional Information:

Severed as Reviewer for many International Journal

Member of IEEE transaction on Electron Device

Acquired Industrial experience from M/S Jessop & Co. Ltd

Publications:

1. "Realization of Quantum Dot Boolean logic gate for Image Processing Application", M.Ganguly, C.K.Sarkar, Journal of Electronic imaging, AIP,

SPIE and IS&T, 16(2), 023003 (Apr-Jun 2007). # **Corresponding author, IF = 2.**

2. Above paper has also been selected for the May 7, 2007 issue of Virtual journal of Nanoscale science & technology, AIP as frontier research.
3. “Image processing by two layer quantum dot array” M.Ganguly, C.K.Sarkar, International Journal of Signal and Imaging System Engineering, Vol. 1, Nos. 3/4, 2008, Inderscience Publishers. # **Corresponding author, IF = 1.31.**
4. “Layers of semiconductor nanostructure for image processing applications” M.Ganguly, C.K.Sarkar, 2009 Semicond. Sci. & Technol. (SST) IOP, 24 (025023). # **Corresponding author, IF = 2.352.**
5. “Using DIT-FFT algorithm for Identification of Protein coding region in EUKARYOTIC GENE” S.Kar, M. Ganguly, S. Das, Biomedical Engineering: Applications, Basis and Communications, Vol. 31, No. 1 (2019) 1950002 (10 pages) DOI: 10.4015/S1016237219500029. # **Corresponding author, IF = 1.2.**
6. “A Study on Sensitivity of Some Switching Parameters of JLT to Structural Parameters” S. Ghosal, M.Ganguly, D. Ghosh, Nanoscience & Nanotechnology-Asia, 2019, 9, DOI: 10.2174/2210681209666190905124818. **IF= 1.3.**
7. “A Real-Time Heartbeat Detection Technique Using TMS320C6713 Processor and Multi-rate Signal Processing” D. Mondal, M.Ganguly, 3 rd International Conference on Recent Advancement in Information Technology (RAIT-2016). DOI: 10.1109/RAIT.2016.7507892. Available on **IEEE Xplore.**
8. “A Study on sensitivity of ION/IOFF ratio of JLT to structural parameters” M.Ganguly , S. Ghosal, , D. Ghosh , 2018 **IEEE** Electron Device Kolkata Conference (EDKCON), PP- 499-504.
9. “Prediction of coding region and mutations in Human DNA by effective numerical coding and DSP technique” 2021 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS) DOI:10.1109/ICCCIS51004.2021.9397102. Available on **IEEE Xplore.**

10. "Realization of Quantum Dot (QD) Boolean logic gate for Image Processing Applications", M.Ray, S.S.Dan and C.K.Sarkar, IWPSD 2005, PP-705-709.
11. "Transport Mechanism for Boolean Logic Implementation Diode Coupled Single Electron Quantum Dot device", S.S.Dan, M.Ray, C.K.sarkar, **IWPSD** 2005, PP- 417-421.
12. "Nanodevice for Image processing Agent", M.Ganguly, C.K.Sarkar, **NateHca**, 2007, PP-D19-23.
13. "An overview of Digital Signal Processing Algorithms in Identification of Protein Codind Regions in Gene." S.Kar, M. Ganguly. **Microbes in Our Life**, 2019, ISBN: 978-81-938439-8-7.
14. "A numerical representation of DNA sequence to predict coding and non-coding region in Eukaryotic genes using Digital filters" S.Kar, M. Ganguly, S. Das, one day National Seminar on "Recent Trends and Scopes of Modern Biology".
15. "Spectral Analysis of DNA on 1-D Hydration Enthalpy Based Numerical Mapping Using Optimal Filtering" S. Kar, M. Ganguly, Selected as Book Chapter in Lecture Notes in Electrical Engineering, **Springer**. (In Press)