

CURRICULUM VITA

Dr. Sudipta Bardhan

Permanent Address: Boxibazar, Paschim Medinipur
PIN -721101, West Bengal, India.
Email Id: sudipta.bardhan15@gmail.com
Mobile No: +918637387765



CURRENT STATUS

Working as an Assistant Professor of Electronics and Communication Engineering Department in Haldia Institute of Technology, Haldia.

ACADEMIC QUALIFICATION

- ❖ **PhD in Engineering** from Indian Institute of Engineering Science and Technology (IEST), Shibpur.
- ❖ **M. Tech in Microelectronics Technology & VLSI Design** from Jadavpur University, Kolkata.
- ❖ **B. Tech in Electronics & Instrumentation** Engineering done Under Burdwan University.

SUBJECT TAKEN (UG)

▪ Electronic Devices and Circuits ▪ Circuit Network ▪ Microelectronics and VLSI Technology ▪ Signal and System ▪ Microprocessor & Microcontroller. ▪ Microprocessor based System. ▪ Sensor and Transducer ▪ Basic Electrical and Electronics I and II	▪ Electronic Devices and Circuits Lab ▪ Circuit Network Lab ▪ Microprocessor Lab ▪ Basic Electrical & electronics Lab ▪ Sensor and Transducer lab ▪ Mentoring Students of undergraduate for their project.
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SUBJECT TAKEN (PG)

- VLSI Devices & Modeling
- Analog IC Design

Publications Referred Journals

1. S. Bardhan, M. Sahoo, and H. Rahaman, "A Boltzmann transport equation based semiclassical drain current model for bilayer GFET including scattering effects," *IET Circuits, Devices and Systems*, vol. 13, no. 4, pp. 456–464, 2019, DOI:10.1049/iet-cds.2018.5104
2. S. Bardhan, M. Sahoo, and H. Rahaman, "Empirical drain current model of graphene FET for application as a circuit simulation tool," *IETE Journal of Research*, pp. 1–13, 2019, DOI:10.1080/03772063.2019.1620639
3. S. Bardhan, M. Sahoo, and H. Rahaman, "A surface potential based model for dual gate bilayer graphene field effect transistor including the capacitive effects," *Journal of Circuits, Systems, and Computers*, vol. 28, no. 14, pp. 1950241–1950261, 2019, DOI:10.1142/S0218126619502414
4. S. Bardhan and H. Rahaman, "Modeling and Performance Analysis of Graphene Field Effect Transistor," *Asian Journal of Chemistry* 25. Supplementary Issue (2013): S421.
5. Adhikary, Akash, Tapan Maity, Jagannath Samanta, Sudipta Bardhan and Balaram Dey, "Design and Development of A Smart Parachute Control System for Military and Civilian Applications." *Turkish Journal of Computer and Mathematics Education (TURCOMAT)* 11, no. 1 (2020): 492-501.
6. Bardhan, S., Sahoo, M., Samanta, J., & Rahaman, H. (2024). A Quasi-Ballistic Model for Short Channel Monolayer Graphene Field Effect Transistor Including Scattering Effects. *IETE Journal of Research*, 1–12. <https://doi.org/10.1080/03772063.2024.2352154>.

Referred Conferences

1. S. Bardhan, M. Sahoo, and H. Rahaman, "A verilog-a based semiclassical model for dual gated graphene field-effect transistor," *IEEE 3rd International Conference on Devices, Circuits and Systems (ICDCS)*, 2016, pp. 37-42.
2. S. Bardhan, M. Sahoo, and H. Rahaman, "Analytical study of BTE based multilayer GFET model," *IEEE International Conference on Microelectronics, Computing and Communications (MicroCom)*, 2016, pp. 1-6.
3. S. Bardhan, M. Sahoo, and H. Rahaman, "Analytical drain current model for graphene metal-oxide semiconductor field-effect transistor," *IEEE 2nd International Conference on Electrical Information and Communication Technology (EICT)*, 2015, pp. 422-427.

4. S. Bardhan, M. Sahoo and H. Rahaman,”Analysis of Design Oriented Compact Model for ZIGZAG CNTFET,” IEEE International Conference on Electronics, Communication and Instrumentation (ICECI) 2014 Jan 16 (pp. 1-4).

5. Sudipta Bardhan, Hafizur Rahaman, “Modeling and Performance analysis of 1D CNTFET,” National Conference on Advanced Communication Systems and Design Techniques (NCACD) 2012.

Book Chapters –

1. Jagannath Samanta, Raj Kumar Maity, Debnath Ghosh, and Sudipta Bardhan, Performance Analysis of Barlekamp-Massey based KES block for 3-Byte RS Decoder, Proceedings of the 3rd International Conference on Communication, Devices and Computing. Lecture Notes in Electrical Engineering, vol xxx. Springer, Singapore, August, 2021, pp. xxx-xxx, DOI:

Patents:

‘Digital chopping board for kitchen’ (Indian Patent No. 438173-001, Filed on 22-11-2024, Issued on 12-02-2025)