



RICHIK KASHYAP

Assistant Professor

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Assistant Professor with three years of UG/PG/PhD classroom expertise and successfully contributing to B.Tech/M.Tech/PhD curriculum development and delivery. Researcher in the field of Microelectronics/MEMS and Machine Learning.



Technical Skills

● Comsol Multiphysics, Matlab, Verilog/VHDL in Xilinx.



Work History

Assistant Professor

Department of ECE, Assam University, Silchar, Assam.



Education

PhD: Microelectronics Engineering

National Institute Of Technology Silchar - Silchar

Thesis Title: "Distributed Parameter Modeling and Autonomous Charge Extraction of d31 and d33 Mode Piezoelectric Energy Harvesters"

Supervisor: Prof. Srimanta Baishya.

Co-Supervisor: Dr. Trupti Ranjan Lenka.

M.Tech: Microelectronics & VLSI Design Engineering

National Institute Of Technology Silchar - Silchar

Thesis Title: "Design and Analysis of MEMS based Suspended-Gate MOSFET"

Supervisor: Prof. Srimanta Baishya.

B.Tech: Electronics and Communication Engineering

National Institute Of Technology Silchar - Silchar



Research Fields

● Microelectronic Circuits, MEMS/NEMS devices, Machine Learning.

2017-10 - Current

2013-07 - 2016-12

2011-07 - 2013-05

2006-08 - 2010-06



Publications



SCI Journals

- S. Baishya, D. Borthakur, **R. Kashyap** and A. Chatterjee, "A High Precision Lumped Parameter Model for Piezoelectric Energy Harvesters," in **IEEE Sensors Journal**, vol. 17, no. 24, pp. 8350-8355, 15 Dec.15, 2017, doi: 10.1109/JSEN.2017.2764165.
- S. Agarwal, **R. Kashyap**, K. Guha, S. Baishya, " Modeling and analysis of capacitance in consideration of the deformation in RF MEMS shunt switch," **Superlattices and Microstructures**, vol 101, , pp. 567 – 574, January 2017. doi: 10.1016/j.spmi.2016.10.022.
- **R. Kashyap**, T. R. Lenka, and S. Baishya, "Distributed Parameter Modeling of Cantilevered-d33-Mode Piezoelectric Energy Harvesters," **IEEE Transactions on Electron Devices**, vol. 63, no. 3, pp. 1281 - 1287, March 2016. doi: 10.1109/TED.2015.2514160.
- **R. Kashyap**, T. R. lenka, and S. Baishya, "A Model for Doubly Clamped Piezoelectric Energy Harvesters with Segmented Electrodes," **IEEE Electron Device Letters**, vol. 36, no. 12, pp. 1369 - 1372, December 2015. doi: 10.1109/LED.2015.2496186.



Conferences

- N. Shome, R.H. Laskar, **R. Kashyap**, S. Bandyopadhyay, "A Robust Technique for End Point Detection Under Practical Environment" In: Bhattacharjee A., Borgohain S., Soni B., Verma G., Gao XZ. (eds) Machine Learning, Image Processing, Network Security and Data Sciences. MIND 2020. Communications in Computer and Information Science, vol 1241. Springer, Singapore. https://doi.org/10.1007/978-981-15-6318-8_12.
- **R. Kashyap**, T. R. Lenka and S. Baishya, "Study of doubly clamped piezoelectric beam energy harvesters with non-traditional geometries," 2016 7th India International Conference on Power Electronics (IICPE), Patiala, 2016, pp. 1-4, doi: 10.1109/IICPE.2016.8079535.



Experience of PhD Supervision

Number of students currently doing PhD under my guidance: **02**



Orientation and Refresher Courses

- Participated and successfully completed the UGC sponsored Inter-Disciplinary Refresher Course on Engineering and Technology, organized by HRDC, Mizoram University, held from 1st – 14th December, 2020.
- Participated and successfully completed the UGC sponsored Orientation Programme -28, organized by HRDC, Mizoram University, held from 6th August - 5th September, 2019.