# Ashiqur Rasul

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## EDUCATION

- **PhD in Electrical and Computer Engineering** — *Aug 24 – Present*
  Georgia Institute of Technology — *CGPA – 4.00/4.00*
- **B.Sc. in Electrical and Electronics Engineering** — *Feb 2017 – May 22*
  Bangladesh University of Engineering and Technology — *CGPA 3.89/4.00*

## RELEVANT PROFESSIONAL EXPERIENCE

- ***Graduate Research Assistant, Georgia Institute of Technology*** — *Jan 25 - Present*
  Low Power, Adaptive and Resilient Systems (LARS), PI: Dr. Abhijit Chatterjee
  - Developing built-in self-test (BIST) framework for analog integrated circuits in collaboration with Intel
  - Investigating efficient alternative testing techniques for analog integrated circuits
  - Designing testing scheme for emerging compute-in-memory hardware architecture in the context of process variations
- ***Lecturer, Bangladesh University of Engineering and Technology*** — *Nov 22 – Aug 24*
  Department of Electrical and Electronic Engineering
  - Instructing courses on VLSI, Microprocessors and Electronics

## SELECTED PUBLICATIONS

1. **Ashiqur Rasul**, Md. Shafayet Hossain, Ankan Ghosh Dastider, Himmadri Roy, M. Zahid Hasan, Quazi D.M. Khosru, "A machine learning based classifier for topological quantum materials", *Nature Scientific Reports, 2024, DOI: https://www.doi.org/10.1038/s41598-024-68920-8*
2. Ankan Ghosh Dastider, **Ashiqur Rasul**, Ehsanur Rahman, Md. Kawsar Alam, "Effect of Vacancy Defects on the Electrical and Mechanical Properties of Two-Dimensional $MoSi_2N_4$", *Royal Society of Chemistry Advances, 2023*, DOI: https://doi.org/10.1039/D2RA07483D.
3. Tanshia Tahreen Tanisha, Md. Shafayet Hossain, Nishat Hiramony, **Ashiqur Rasul**, M. Zahid Hasan, Quazi Deen Mohd Khosru, "Tunable Metal-Insulator and Topological Phase Transitions in Piezoelectric Janus Monolayer", *ACS Applied Nano Materials, 2024. DOI: https://doi.org/10.1021/acsanm.4c04016*

## AWARDS AND HONORS

- Dean's List Scholarship, BUET (academic excellence at undergraduate level in each academic year), 2017 - 2022
- University Merit Scholarship, BUET (based on results of undergraduate study in each term), 2017-2022
- University Technical Scholarship, BUET, 2017 – 2022

## ACHIEVEMENTS

- Runners-up, IEEE Signal Processing CUP 2020
- Runners-up, IEEE Video and Image Processing Cup 2020
- Champion, IEEE Robotics and Automation Society Hackathon 2019

## TECHNICAL SKILLS

- **Programming Languages:**
  C, C++, CUDA, MPI, VHDL, Verilog, System Verilog, Python, Pytorch, TensorFlow, Chisel, Linux Scripting, Assembly
- **Simulation and Design Tools:**
  MATLAB, Cadence Virtuoso, Cadence Spectre, HSpice, Synopsys, Quartus, Xilinx Vivado
- **Hardware**
  PCB Design, FPGA, National Instruments LabVIEW
- **Embedded System and Prototyping**
  Eagle, Atmel Studio, Arduino, Raspberry Pi, AVR

## RELEVANT COURSEWORK

Physical Design Automation in VLSI | DSP Hardware System Design | Gigascale Integration | Advanced Programming Techniques | Microelectronics Technology | VLSI | Microprocessor and Interfacing

## PROFESSIONAL AFFILIATION

- Silicon Jackets, Georgia Tech
- IEEE BUET Student Branch
- BUET Robotics Society
- BUET Entrepreneurship Development Club