



Arefin Ahamed Shuvo
Assistant Professor

Research Area wide and ultra-wide bandgap Semiconductor Devices, High-electron mobility transistors (HEMTs), FET Devices, Energy harvesting devices and Nanogenerators.

Biography

I am **Arefin Ahamed Shuvo**, currently serving as an assistant professor in the Department of Electrical and Electronic Engineering at Khulna University of Engineering & Technology (KUET), Bangladesh. My research interests encompass UWBG channel HEMT, power switching devices, energy harvesting devices, nanogenerators, and self-powered devices.

I have completed both my Bachelor of Science (BSc) and Master of Science (MSc) degrees in Electrical and Electronic Engineering from Khulna University of Engineering & Technology (KUET). During my BSc final year, I focused on the design of AlGaIn/AlGaIn-based ultra-wide-bandgap HEMT using SILVACO TCAD, a project that was later published in the Journal of Computational Electronics. My MSc thesis involved investigating 2D material functionalized polymers and their integration into triboelectric nanogenerators to enhance performance, utilizing COMSOL Multiphysics. This work was published in ACS Applied Electronic Materials.

Looking ahead, I am eager to continue expanding my knowledge and contributing to advancements in semiconductor research. My goal is to drive innovation in semiconductor device technology, addressing critical challenges and paving the way for new applications in this rapidly evolving field.

Education

Master of Science in Electrical and Electronic Engineering

Khulna University of Engineering & Technology, Khulna, Bangladesh (2019-2022)

Thesis Title: [Theoretical Analysis of High Performance Triboelectric Nanogenerators Based on Functionalized Polymers](#)

Bachelor of Science in Electrical and Electronic Engineering

Khulna University of Engineering & Technology, Bangladesh (2015-2019) Achievement: Technical Scholarship, Deans Award

Higher Secondary Certificate

Saidpur Govt. Science College, Bangladesh (2012-2014) Achievement: Dinajpur Board Scholarship

Secondary School Certificate

Lions School & College, Saidpur, Bangladesh (2010-2012) Achievement: Dinajpur Board Scholarship

Service Records

- **Assistant Professor**
Department/Section: Electrical and Electronic Engineering
Khulna University of Engineering & Technology From 2023-03-23 20:23:00 to 1970-01-01 06:00:00
- **Lecturer**
Department/Section: Electrical and Electronic Engineering
Khulna University of Engineering & Technology From 2020-02-16 20:20:00 to 2023-03-23 20:23:00

Research Interest

wide and ultra-wide bandgap Semiconductor Devices, High-electron mobility transistors (HEMTs), FET Devices, Energy harvesting devices and Nanogenerators.