



Abu Syed Md. Jannatul Islam

Assistant Professor

Research Area Nanotechnology,

Nanomaterials, Nanomechanics, Monte Carlo Simulation, Molecular Dynamics Simulation, First Principles Calculation, Heterostructure Devices, Photovoltaic Solar Cell Materials, Nanoelectromechanical Systems(NEMS), Defect Engineering

Biography

Welcome to A.S.M. Jannatul's Homepage

Mr. A.S.M. Jannatul Islam was born in Rangpur, Bangladesh, and had his early education in Rangpur (The Cantonment Public School & College, Rangpur). He obtained his B.Sc.Eng. (EEE) degree in May 2016 and an M.Sc. Eng. (EEE) degree in January 2019 from Khulna University of Engineering & Technology (KUET), Bangladesh. After graduation, A.S.M Jannatul joined the KUET as a Lecturer in the Department of Electrical and Electronic Engineering in February 2017. He has been promoted to assistant professor in the EEE department using his prestigious MS degree. In his MS thesis, he worked on the thermal and mechanical properties of two-dimensional silicon carbide nanomaterial using molecular dynamics simulation. Four of his articles have been published in [Nanotechnology \(IOP\)](#), [Materials Research Express \(IOP\)](#), [AIP Advances \(AIP\)](#), and [Physical Chemistry Chemical Physics \(RSC\)](#). Moreover, he has expertise in analyzing the localized Exciton dynamics of organic-inorganic Perovskite material using Monte Carlo Simulation. Most recently, he has published a paper in [AIP Advances \(AIP\)](#). At his undergraduate level, he worked on the substrate effect on the DC performances of AlGa_N/Ga_N high electron mobility transistors with Comsol Multiphysics Software. As an author, he has more than 24 high-impact (Peer-reviewed) journals published in IOP, RSC, Nature, ACS, Elsevier, AIP, and 13 IEEE conference papers. A.S.M. Jannatul has been actively involved in research activities related to Nanotechnology, Thermal, Mechanical, and Vibrational Properties of 2D Nanomaterials, Organic-inorganic Perovskite material, Nanoelectronic Devices, PV Solar Cell Material Properties and Exciton dynamics of different materials. Moreover, he can use various packages and software like Large Atomic Molecular/Massively Parallel Simulator (LAMMPS), Atlas Silvaco, Comsol Multiphysics, Quantum Espresso, FORCE2, Lumerical FDTD and MATLAB to explore the nanomaterials properties and nanoscale device characteristics. If you are interested to see his research profile, please go to the following web link: [Researchgate Profile](#) and [Google Scholar Profile](#)

Education

M.Sc. in Electrical & Electronic Engineering

Khulna University of Engineering & Technology, Khulna, Bangladesh,(2019)Student Type:Part Time,

Thesis Title: [Study on Thermal and Mechanical Properties of 2D Silicon Carbide using Molecular Dynamics Simulation](#)

Excellent

B.Sc. in Electrical & Electronic Engineering

Khulna University of Engineering & Technology, Khulna,Bangladesh(2016)Group: EEE,Student Type:Regular,Merit Position:

Second,Achievement:1st Class 2nd

Higher Secondary School Certificate

Cantonment Public School & College, Rangpur,Bangladesh(2011)Group: Science,Student Type:Regular,

Secondary School Certificate

Haragach Multilateral High School,Bangladesh(2009)Group: Science,Student Type:Regular,

Service Records

- **Assistant Professor**
Department/Section: EEE
Khulna University of Engineering & Technology *From to*
Working Area:Khulna
- **Lecturer**
Department/Section: EEE
Khulna University of Engineering & Technology *From to*
Working Area:Khulna

Research Interest

Nanotechnology, Nanomaterials, Nanomechanics, Monte Carlo Simulation, Molecular Dynamics Simulation, First Principles Calculation, Heterostructure Devices, Photovoltaic Solar Cell Materials, Nanoelectromechanical Systems(NEMS), Defect Engineering