



## Biography

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### Somnath Somadder

Assistant Professor

**Research Area** Additive Manufacturing  
Multiscale Modeling Numerical analysis of  
functionally graded materials Impact  
Dynamics Solid Mechanics and Materials  
Engineering

## Education

### PhD in Mechanical Engineering

Florida International University, USA() Student Type: Full Time, Achievement: Presidential Doctoral Fellow

### B.Sc. in Mechanical Engineering

Khulna University of Engineering & Technology, Bangladesh (2018) Group: Mechanical Engineering, Student Type: Regular, Merit Position: 2nd, Achievement: Honors

### H.S.C (Higher Secondary Certificate)

Govt. Syed Hatem Ali College, Bangladesh (2013) Group: Science, Student Type: Regular, Achievement: Board Scholarship

### S.S.C (Secondary School Certificate)

Barisal Zilla School, Bangladesh (2011) Group: Science, Student Type: Regular,

### M.Sc. in Mechanical Engineering

Khulna University of Engineering & Technology, Bangladesh (2018-2021)

**Thesis Title:** [Effect of Adhesive Layer Thickness and Slant Angle on Piezoelectric Bonded Joints](#)

## Service Records

- **Assistant Professor**  
**Department/Section:** Department of Mechanical Engineering  
**Khulna University of Engineering & Technology (KUET)** From to  
Responsibility: Teaching, Paper Setter, Examiner and Research
- **Consultancy, Research & Testing Officer**  
**Department/Section:** CRTS, Department of Mechanical Engineering  
**Khulna University of Engineering & Technology (KUET)** From to  
Responsibility: Consultancy, research and performing various test.
- **Lecturer**  
**Department/Section:** Department of Mechanical Engineering  
**Khulna University of Engineering & Technology (KUET)** From to  
Responsibility: Teaching, Paper Setter, Examiner and Research

## Research Interest

### Additive Manufacturing

Additive Manufacturing (AM) is defined as "the process of joining materials to make objects from 3D model data, usually layer upon layer, as opposed to subtractive manufacturing methodologies, such as traditional machining.

### Multiscale Modeling

Multiscale modeling refers to a style of modeling in which multiple models at different scales are used simultaneously to describe a system. The different models usually focus on different scales of resolution. Multiscale modeling research focusses on developing comprehensive multiphysics framework, bridging length scales from atomistic to the structural scale, including geometric and material variability, and damage for accurate prediction of material behavior and failure under service conditions for a wide range of materials such as polymer matrix composites (PMC), ceramic matrix composites (CMC), metallic alloys and superalloys.

### Numerical analysis of functionally graded materials

A functionally graded material (FGM) is a two-component composite characterised by a compositional gradient from one component to the other. In contrast, traditional composites are homogeneous mixtures, and they therefore involve a compromise between the desirable properties of the component materials.

### Impact Dynamics

Low velocity impact on composite materials

### Solid Mechanics and Materials Engineering

