



Department of Mechanical Engineering  
Khulna University of Engineering & Technology  
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**Md. Mohiuddin**  
Lecturer  
**Research Area**

## Biography

**Md. Mohiuddin** is a Lecturer in the Department of Mechanical Engineering at Khulna University of Engineering & Technology. His current research focuses on enhancing energy output and velocity range through flow-induced vibration. Additionally, he is actively working on the shape optimization of piezoelectric cantilever energy harvesters using numerical and machine-learning techniques. Mohiuddin's research interests span across energy harvesting, fluid-solid interactions, thermo-fluid dynamics, and both linear and non-linear vibrations, with a strong emphasis on leveraging machine learning to solve complex engineering problems.

In addition to his academic and research pursuits, Khalek is passionate about mentoring students and actively supports them in their undergraduate engineering projects. As a lecturer, he has taught various courses, including fluid mechanics, solid mechanics, thermodynamics, and thermal engineering,

He is dedicated to advancing the field of mechanical engineering through innovative research and collaboration, aiming to develop sustainable solutions for energy challenges in the modern world.

## Education

### Master of Science in Mechanical Engineering, M.Sc. (ME)

Khulna University of Engineering & Technology, Bangladesh (2023-2025)

**Thesis Title:** [Effect of Bluff Body Geometry on Output of Flow Induced Vibration Energy Harvester.](#)

### Bachelor of Science in Mechanical Engineering, B.Sc. (ME)

Khulna University of Engineering & Technology, Bangladesh (2018-2023) Achievement: Deans Award

### Higher Secondary School Certificate (HSC)

Bangladesh International School & College, Riyadh, Bangladesh (2015-2017)

### Secondary School Certificate (SSC)

Bangladesh International School & College, Riyadh, Bangladesh (2013-2015)

## Service Records

- **Lecturer**

**Department/Section:** Mechanical Engineering

**Khulna University of Engineering & Technology** From 2023-03-23 00:00:00 to 1970-01-01 06:00:00

## Research Interest

Energy Harvesting  
Fluid Solid Interaction  
Piezoelectricity

- **Piezoelectric Energy Harvesting**
- **Flow Induced Energy Harvesting**

This research focuses on capturing flow energy using a bluff body to induce vibrations. The primary benefit of this energy harvester is its ability to operate effectively in low-velocity flows. However, a challenge is that it produces significant power output only within a very limited velocity range. Ongoing studies aim to expand this bandwidth and enhance the power output.