



Department of Civil Engineering
Khulna University of Engineering & Technology
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Mehedi Hasan

Assistant Professor

Research Area Bioenergy Anaerobic
Digestion Biological Wastewater Treatment
Environmental Microbiology Environmental
Biotechnology Environmental Engineering

Biography

This is Mehedi Hasan, serving as an Assistant Professor in the Department of Civil Engineering, Khulna University of Engineering & Technology with more than Nine (9) years of academic and research experience in the field of environmental engineering. He has been working to develop a new energy-positive technological approach for wastewater treatment and bioenergy generation using a photo anoxic baffled reactor (PABR) and photobioreactor (PBR). This technological approach is a sustainable solution for both energy crisis and wastewater problems in most of the developing countries located in subtropical-tropical regions. As part of his research work, he has already developed a novel low-cost PABR and PBR for domestic wastewater treatment. His current research focuses on microalgae-based wastewater treatment systems; optimization of microalgae cultivation and harvesting techniques; and optimization of biofuels/biocrude production from microalgae via hydrothermal liquefaction process.

The primary objectives of his research are to develop simplistic, sustainable, and low-cost techniques for wastewater treatment and bioenergy (as biofuels) production from wastewater which is suitable for most of the developing countries located in subtropical-tropical regions. Currently, he is working on microalgae-based wastewater treatment through a photo anoxic baffled reactor and photobioreactor to generate bioenergy from wastewater which would serve as a double-edged solution to mitigate both wastewater and energy crisis problems in Bangladesh.

Education

M.Sc in Civil Engineering

Khulna University of Engineering & Technology, Bangladesh (2017-2020)

Thesis Title: [Optimization of Nutrients Removal Wastewater using a Photo Anoxic Baffled Reactor and Photobioreactor System](#)

B.Sc in Civil Engineering

Khulna University of Engineering & Technology, Bangladesh (2012-2017)

Higher Secondary School Certificate

Cantonment Public School and College, Saidpur, Bangladesh (2010-2012)

Secondary School Certificate

Kaligonj S.P. High School, Bangladesh (2005-2010)

Service Records

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

Research Interest

Bioenergy

Anaerobic Digestion

Biological Wastewater Treatment

Environmental Microbiology

Environmental Biotechnology

Environmental Engineering