



Department of Energy Science and Engineering  
Khulna University of Engineering & Technology  
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**Dr. Md. Shameem Hossain**

Associate Professor

**Research Area** Ph.D. Research Energy  
Technology Chemical Engineering & Polymer  
Science

## Biography

Welcome to my official webpage! I am Dr. Md. Shameem Hossain, currently working as an Associate Professor in the Department of Energy Science and Engineering at Khulna University of Engineering & Technology (KUET), Khulna-9203, Bangladesh. I have received my Ph.D. degree in Department and Environment and Energy Systems (Chemical Engineering lab) from Shizuoka University, Hamamatsu, Japan in 2023. I obtained my M.Sc. Eng. in Energy Technology from Khulna University of Engineering & Technology (KUET), Khulna in 2015. I completed my B.Sc. in Chemical Engineering and Polymer Science from Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh in 2009. My research interests include Energy Conversion, Alternative Energy, Clean Energy, Structured catalyst, Methanation, Applied catalyst, Utilization of CO<sub>2</sub>, Biofuels, Waste to Energy, Biomass to energy.

## Education

### Ph.D. in Engineering

Shizuoka University, Hamamatsu, Japan (2019-2023)

**Thesis Title:** [A study on CO<sub>2</sub> methanation performance with co-feeding oxygen using structured catalyst system](#)

### M.Sc. Eng.

Khulna University of Engineering & Technology (KUET), Bangladesh (July, 2012-2015)

**Thesis Title:** [Extraction of Liquid Fuel from Pyrolysis of Waste Tyres with Catalyst.](#)

### B.Sc. Eng.

Shahjalal University of Science & Technology (SUST), Bangladesh (2003-2009)

### HSC

Kustia Govt. College, (2002) Group: Science,

### SSC

Dhal Gram High School, (2000) Group: Science,

## Service Records

- **Assistant Professor**

**Department/Section:** Department of Energy Science and Engineering

**Khulna University of Engineering & Technology (KUET) From to**

Working Area: Energy Conversion, Alternative Energy, Clean Energy, Structured Catalyst, Methanation, Applied Catalyst, Utilization of CO<sub>2</sub>, Biogas, Biofuels, Waste to Energy, CCU

- **Lecturer**

**Department/Section:** Department of Energy Science and Engineering

**Khulna University of Engineering & Technology (KUET) From to**

- **Sr. Engineer (Shift in Charge)**

**Department/Section:** Operation

**Petromax Refinery Ltd. From to**

Working Area: Operation

- **Sr. Engineer**

**Department/Section:** Production and Quality Controller

**Dae Dong Chemical Industries Ltd. From to**

Responsibility: 1. Manage & Supervision of overall production process. 2. Producing high quality textile auxiliary chemicals (e.g. Soaping agents, sequestering agents, leveling agents, peroxide killer, anti-crease and dispersing agents) 3. Checking and controlling the quality of products (Brix, pH, TDS, Conductivity, Acidity, Appearance) 4. Handling all kinds of process & laboratory equipments and production problems (IR Dyeing machine, Reactor, Boiler, Motor, Refractometer meter, Water bath shaker, Forced Convection Oven, , pH meter, Conductivity meter, TDS meter etc.) 5. Performing all types of lab testing, physical testing, chemical testing, routine and specialized chemistry analysis, managing laboratory resources, maintaining instrumentation integrity and all lab equipment properly.

- **Production Engineer (Research & Development)**

**Zaber & Zubair Fabrics Ltd, Noman Group From to**

Working Area: Home Textile (Weaving) Dyeing processing.

Responsibility: i) Ensure of all physical & chemical testing in dyeing processing department ii) Control cost of chemical & fabrics wastage by proper parameter setting. iii) Set up actual chemical dosages system & check up manually if any trouble that shoot up eventually.

iv) Ensure compliance of operation with ISO 9000 standard and company policy. v) Train up employee about Health, safety & hazard weekly. vi) Assess & ensure Quality of incoming raw materials, intermediate and finished products as per standard

- **Trainee Engineer**

**Department/Section:** (Lab & QC)

**RFL Plastic Ltd From to**

## Research Interest

### Ph.D. Research

Utilization of CO<sub>2</sub>, Clean Energy, Structured catalyst, Methanation, Applied catalyst

### Energy Technology

Waste Management, Process Control, Petrochemical, Pyrolysis, Solar energy, Bio-energy,

Extraction of Liquid Fuel from Pyrolysis of Waste Tyres with Catalyst. (M.Sc Engg.)

**Chemical Engineering & Polymer Science**

Biofuel, Polymer , Fuel cell, Non- Conventional Energy

Bio Gas from Munciple Solid Waste ( B.Sc Engg.)