Md. Tusher Mahmud

📍 113/2, West Shewrapara, Dhaka-1216

✉ Email   🌐 Website   R^G ResearchGate   in LinkedIn

ACADEMIC CREDENTIALS

Bachelor of Science in Mechanical Engineering   [March 2018 - May 2023]
Bangladesh University of Engineering and Technology
Cumulative GPA: 3.54/4.00

RESEARCH INTERESTS

- Fluid dynamics
- Heat Transfer
- Molecular Dynamics
- Nano materials

RESEARCH EXPERIENCE

Undergraduate Thesis:

Title: Thermal performance of rectangular fins within a vented enclosure for various geometric configurations
- This study aims to investigate the impact of varying geometric configurations on the thermal performance of fins, conducting a parametric analysis of various non-dimensional parameters to assess their effects.
- **Software Used:** COMSOL, Tecplot 360

Supervisor: Dr. Mohammad Mamun, Professor, Department of ME, BUET

Computational Fluid Dynamics and Heat Transfer group (CFDHT)

Title: Entropy Generation and Conjugate MHD Mixed Convection in a Triangular Domain with Rotating Solid Cylinder
- The study primarily aims to minimize system entropy and reduce heat transfer loss, while also conducting a detailed analysis of the relationship between heat transfer and entropy generation in mixed convection under the influence of a magnetic field.
- Manuscript is ready. It will be submitted for publication.
- **Software Used:** COMSOL, Tecplot 360

Supervisor: Dr. Sumon Saha, Professor, Department of ME, BUET

CONFERENCE

Title: MHD Conjugate Mixed Convection in a Triangular Cavity with Heat Conducting Rotating Cylinder
- Received **Best Paper Award** in International Conference on Advanced Materials in Innovative Technology (AMITY- 2022).
- The impact of varying mixed convection parameters on heat transfer was thoroughly analyzed to determine the optimal conditions for maximizing heat transfer efficiency.
- **Software Used:** COMSOL, Tecplot 360

Supervisor: Dr. Sumon Saha, Professor, Department of ME, BUET

PROJECTS

Title: Self-stabilizing Laser Turret   [July 2021]
- **Software Used:** SOLIDWORKS, Arduino IDE, Proteus, TinkerCAD, AutoCAD

Supervisor: Dr. Kazi Arafat Rahman, Associate Professor, Department of Mechanical Engineering, BUET

Title: <u>Design of a Counter-flow Shell and Helical Coil Tube Heat Exchanger</u>   [February 2022]
- **Software Used:** HTRI, 3EPlus, Abaqus, SOLIDWORKS

Supervisor: Dr. A K M Monjur Morshed**,** Professor, Department of Mechanical Engineering, BUET

Title: Analysis of Internal Temperature Control System in a C-shaped Channel
- **Software Used:** COMSOL, Tecplot 360

Supervisor: Dr. Sumon Saha, Professor, Department of ME, BUET

PROFESSIONAL EXPERIENCE

Industrial Trainee   [October 2022 - November 2022]
Ashuganj Power Station Company Limited (APSCL)

Executive, Area Sales, Hardgoods   [July 2023 – September 2024]
Head of Territory - Mirpur
Linde Bangladesh Limited

Executive, Area Sales, Welding Consumables   [September 2024 – Present]
Head of Territory - Mirpur
ESAB Bangladesh Private Limited

TECHNICAL SKILLS

– **CAD Modeling:** Solidworks, AutoCAD	– **CFD, FEA and Analysis tools:** COMSOL Multiphysics, MATLAB	– **Programming Language:** Python, C	– **Plotting tools:** Tecplot 360 – **Circuit Modeling:** Proteus, Tinkercad

SELECTIVE CERTIFICATIONS

– **Supervised Machine Learning: Regression and Classification** Stanford University / Coursera [February 2023] Credential ID: Y8V2UCWFDS24	– **Unsupervised Learning, Recommenders, Reinforcement Learning** Stanford University / Coursera Currently Enrolled