

# Kazi Tahsin Mahmood

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in KaziTahsin

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## ACADEMIC CREDENTIALS

**Bangladesh University of Engineering & Technology**

*B.Sc. in Mechanical Engineering*

Cumulative GPA: 3.30/4.00

**Dhaka, Bangladesh**

*Feb 2016 - Feb 2021*

## UNDERGRADUATE THESIS

**Title:** Electro-Thermo-Mechanical Response of a Thin Conductive Layer of Metal Matrix Composite Reinforced by Graphite Fibers

**Supervisor:** Dr. Sheikh Reaz Ahmed, Professor, Department of Mechanical Engineering, BUET

## RESEARCH INTEREST

Numerical Analysis	System Analysis	Applied Mathematics	FGM
Mechanics of Materials	Computational Mechanics		

## RESEARCH EXPERIENCE

- Successful first attempt to solve coupled Electro-Thermo-Mechanical Multi-Physics problem in terms of single Scalar field variables.
- Investigation of the thermal and mechanical response of thin conductive layer of metal matrix composite reinforced by graphite fibers by developing the necessary equations and solving the equations through numerical analysis.
- Investigation of the thermal and mechanical behavior for different fiber content and different thermal condition and determining the failure criterion of the metal matrix composites for both thermal and mechanical limit.
- Numerical equations development using the language MATLAB and solving the single scalar field variables to determine the components around the metal matrix composites.
- Various CAD models and their simulation analysis.

## TECHNICAL SKILLS

C/C++	Python	MATLAB	COMSOL Multiphysics	ANSYS
AutoCAD	SolidWorks	Microsoft Office	LaTex	

## STANDARDIZED TEST SCORES

GRE - **311** [12-August, 2021]

Verbal Reasoning - 150/170 (44<sup>th</sup> percentile)

Quantitative Analysis - 161/170 (74<sup>th</sup> percentile)

AWA - 3.5/6.0 (37<sup>th</sup> percentile)

TOEFL iBT - **100** [4-September, 2021]

Reading - 25/30

Speaking - 25/30

Listening - 25/30

Writing - 25/30

## LINGUISTIC PROFICIENCY

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**Bengali** (Native Language)

**English** (Fluent Working Proficiency)

## WORK EXPERIENCE

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**BSRM Steel Limited**

*Engineer Trainee*

**Foujderhat, Chittagong, Bangladesh**

*Jan 2020 - Feb 2020*

- A distinct idea about the industrial process of production of steel rebars.
- Learned about the management process of the production.

## PROJECTS

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**CAD Model of an Industrial Rescue Robot**

*January -2018*

- A model of a rescue robot capable of operating in hazardous environment.
- The model included medical and food supplies for delivering at need.

**Color Sorting Industrial Crane Model**

*June -2018*

- Created a prototype of an industrial crane which uses color sensor to sort the objects.
- Used Arduino based micro-controller to control the motors and sensor for running a smooth sequence of the crane.

**Thermo-Fluid System Design of Double Pipe and Shell & Tube System**

*January -2019*

- Build working prototype of a double pipe heat exchanger and a shell & tube heat exchanger.
- Calculated the heat transfer rate and flow of the system to maximize the efficiency.
- A systematic CAD drawing developed for simulating the flow regulation and heat transfer area.

## REFERENCES

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Sheikh Reaz Ahmed, Ph.D

Professor

Department of Mechanical Engineering, BUET

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Mohammad Abdul Motalab, Ph.D

Professor

Department of Mechanical Engineering, BUET

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