


MOHAMMAD ASHRAFUL ISLAM

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BSc. in Mechanical Engineering

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Summary

I am a recent mechanical engineering graduate (July, 2025) from Chittagong University of Engineering & Technology (CUET) and currently working as a Research Assistant (RA), driven by a strong passion for research and problem solving. With proven skills in research methodology, data analysis and project management, I am eager to pursue a master's or Ph.D. program to further advance my academic and professional growth. I am also actively seeking Graduate Assistantship opportunity to deepen my involvement in research and contribute to scholarly excellence. My ultimate goal is to make a meaningful impact in the field of mechanical engineering by applying my research expertise, collaborative mindset, and analytical skills to innovative and impactful projects.

Academic credentials

Bachelor of Science (B.Sc.) in Mechanical Engineering, Chittagong University of Engineering & Technology. CGPA: 3.45 out of 4.00 (Last two Semester GPA: 3.84/4), (Class position 20% of 180 students)

Research Experience

- ❖ **Research Assistant at Bio-Fuel & Energy lab**, Department of Mechanical Engineering, Chittagong University of Engineering & Technology (CUET).
- ❖ **Project Name:** Numerical and Experimental Investigation of Thermo-Catalytic Pyrolysis of Biomass for Bio-Fuel Production.

Undergraduate Thesis Work

- ❖ **Topic:** Fabrication and Performance Analysis of Automobile Brake Pad (Car disc brake), Using Eco-Friendly and Recycled Materials.
- ❖ **Objectives:** To fabricate automobile disc brake pad (Car), analyze the performances and introduce sustainable solution of automotive parts.

Research Interest

Computational Fluid Dynamics (CFD) | Materials & Metallurgy | Heat transfer | Combustion | IC Engine |

Publications

- ❖ MD Ashraful Islam, MD Mizanur Rahman, Abu Bakkar (2025) "Fabrication and Performance Analysis of Automobile Brake Pad (Car disc brake), Using Eco-Friendly and Recycled Materials." 8th International Conference on Mechanical Engineering and Renewable Energy. (Under review)

Language Proficiency

- ❖ I will take my IELTS on next month.

Software Proficiency

- ❖ **CAD and Simulation:** ANSYS, ANSYS FLUENT, SOLIDWORK, AutoCAD, Aspen plus, OpenFoam.
- ❖ **Image processing:** Adobe Illustrator, Adobe Photoshop, ParaView.
- ❖ **Basic Software:** Microsoft Word, Power point, Excel, latex.
- ❖ **Programming Language:** MATLAB, Python, C Programming, FORTRAN

Professional Expertise

- ❖ **Research Assistant (RA)**-(18th September,2025-Present)
Chittagong University of Engineering & Technology (CUET)
 - Conducting numerical modeling and experimental analysis to optimize thermos-catalytic pyrolysis for bio-fuel generation.
 - Data-driven process optimization to enhance fuel-yield and quality.
 - Collaborating computational and experimental approaches to advance renewable energy technologies.
- ❖ **Internship:** Three weeks of industrial training at Super Petrochemical Limited (SPL) in Chittagong, Bangladesh.
Activity: Acquired hands-on knowledge in Naphtha processing unit, rotating and static maintenance, inventory management, fabrication and welding, and process control systems. Developed a solid understanding of plant operations and maintenance strategies.
- ❖ I have two years of teaching experience in a coaching center, where I taught Chemistry to higher secondary students, enhancing my communication, mentoring and leadership skills.

Extra-Curricular Activities

- ❖ **Team Leader**, Super Petrochemical Limited (SPL), Chittagong (February 2025-March 2025).
Activity: Led a team of three trainees, coordinating tasks and promoting collaboration.
- ❖ **Executive Member**, Robo Mechatronics Association (RMA) (February 2022-June 2024).
- ❖ **Executive Member**, Joyoddhoney (Cultural Club).
- ❖ **Executive Member**, Green for Peace (Social Club).
- ❖ **Team Leader**, Stage Drama Team.

Achievements

- ❖ Got scholarship in Junior School Certificate (JSC), secure 7th place in my region.
- ❖ Got merit scholarship from department of Mechanical Engineering (CUET).

References

Dr. Md. Mizanur Rahman
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