

# ABRAR TASNIM WASHI

✉ Mail    LinkedIn    Website

## RESEARCH INTERESTS

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Computational Fluid Dynamics  
Structural Analysis

Aerodynamics  
Nanomaterial

Wind Engineering  
Artificial Intelligence

## EDUCATION

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**Bachelor of Science in Mechanical Engineering** 2020 - Present  
Khulna University of Engineering & Technology  
CGPA: 3.51 (Till 7th semester out of 8 semesters)  
Thesis Title: **Analyzing the Aerodynamic Impact of Tall Buildings through Numerical Analysis**  
Supervisor: Dr. Mohammad Masud, Professor.

**Higher Secondary Certificate (HSC)** 2017 - 2019  
Dhaka Residential Model College  
GPA: 5.00/5.00

**Secondary School Certificate (SSC)** 2015 - 2017  
BPATC School & College  
GPA: 5.00/5.00

## PUBLICATIONS

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- **A. T. Washi**, K. K. Das, T. Nath, J. P. Das, K.M. T. Tahmid, F. Shahoriar, "Analyzing the Aerodynamic Impact of Tall Buildings through Numerical Analysis", The 3rd International Conference on Mechanical Engineering and Applied Sciences 2025 (ICMEAS 2025). [Accepted for publication. The camera-ready version is submitted.]
- T. H. Anto, F. Shahoriar, S. Mahmud, **A. T. Washi**, T. Nath, K.M. T. Tahmid, "Aerodynamic Analysis of a Modified NASA SC(2)-0414 Airfoil with a Trailing-Edge Enhancement Under Transonic Flow Conditions", The 3rd International Conference on Mechanical Engineering and Applied Sciences 2025 (ICMEAS 2025). [Accepted for publication. The camera-ready version is submitted.]
- T. Nath, **A. T. Washi**, K.M. T. Tahmid, K. K. Das, J. P. Das, T. H. Anto, "Investigating Hemodynamic Changes in a Stenosed Artery with Varying Eccentricity Using Nano-fluid Simulation", The 3rd International Conference on Mechanical Engineering and Applied Sciences 2025 (ICMEAS 2025). [Accepted for publication. The camera-ready version is submitted.]
- J. P. Das, K.M. T. Tahmid, T. Nath, **A. T. Washi**, "Optimizing Pin-Fin Heat Sinks Automatically Using MATLAB-Based Computational Fluid Dynamics and Genetic Algorithms", The 3rd International Conference on Mechanical Engineering and Applied Sciences 2025 (ICMEAS 2025). [Accepted for publication. The camera-ready version is submitted.]
- K.M. T. Tahmid, J. P. Das, T. Nath, K. K. Das, **A. T. Washi**, S. Mahmud, "Numerical Investigation of Heat Transfer Performance in a Shell and Tube Heat Exchanger Using Twisted Tube and Hybrid Nano-Fluid", The 3rd International Conference on Mechanical Engineering and Applied Sciences 2025 (ICMEAS 2025). [Accepted for publication. The camera-ready version is submitted.]
- K. K. Das, T. Nath, **A. T. Washi**, K.M. T. Tahmid "Comparative Study Between NACA 2412 and NACA 4412: A CFD Approach", The 3rd International Conference on Mechanical Engineering and Applied Sciences 2025 (ICMEAS 2025). [Accepted for publication. The camera-ready version is submitted.]

## PROJECTS

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### Study on Screw Turbine

A detailed study on manufacturing and working mechanism of a screw turbine.

### Design and fabrication of a Bevel gear

In this project, me and my team designed and fabricated a bevel gear as a part of our practical course.

## TECHNICAL SKILLS

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- **Simulation Softwares:** ANSYS (Fluent)
- **Design Softwares :** SOLIDWORKS   AutoCAD

- **Programming Language :** C Python
- **Microsoft Packs :** MS Word MS Powerpoint MS Excel
- **Plotting Software :** Origin Pro
- **Technical Skills :** Mechanical Testing on UTM

## **SCHOLARSHIPS & AWARDS**

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### **Deans Award**

For keeping academic excellence throughout a year.

### **Government Scholarships**

This scholarship is given to the students for securing top positions in the country.

## **CERTIFICATES & ACHIEVEMENTS**

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### **Introduction to Autocad ( from EDGE )**

A project of the Bangladesh Computer Council (BCC) under the ICT Division where CSWA equivalent knowledge is given.

## **INDUSTRIAL EXPERIENCE**

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### **United Power Generation & Distribution Company Ltd.**

Completed a 7 day industrial attachment gaining vast knowledge about power generation, engines, generators, transformers, HVAC systems.

### **HAMKO Battery**

Completed an industrial attachment getting insights about battery production, from sourcing raw materials to delivering finished products to retailers.

## **EXTRA-CURRICULAR ACTIVITIES**

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### **Vice President**

Ramians Association of KUET