CURRICULUM VITAE

Mohammad Raihan

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SUMMURY

A young, dynamic, result-oriented, and productive first-class graduate of Mechanical Engineering with deft research and analytical skills. I am a fast-tract learner and an open-minded team player who is passionate about pursuing a career as a researcher with the hope of making significant and enormous contributions via innovative research.

Interests: Aerodynamics | Computational Fluid Dynamics | Biomimicry-Inspired Vehicle Design | UAV Aerodynamics | Aeroacoustics | Solar Thermal & Concentrated Solar Power

ACADEMIC CREDENTIALS

2020-2025	**B.Sc. in Mechanical Engineering** Faculty of Mechanical Engineering, Rajshahi University of Engineering and Technology	**CGPA**: **3.80** out of **4.00** Total Credits: **160** **Duration:** 4 Years
2019	**Higher Secondary School Certificate** Group – Science Cumilla Govt. College	**GPA**: **5.00** out of **5.00** **Duration:** 2 Years
2017	**Secondary School Certificate** Group – Science Kasba Poura High School	**GPA**: **5.00** out of **5.00** **Duration:** 5 Years

RESEARCH EXPERIENCE

Jan-Nov 2023 **Undergraduate Research Work**
Department of Mechanical Engineering,
Rajshahi University of Engineering and Technology.

- **Undergraduate Thesis title:** Effect of swept angle and wing profile on the aerodynamic performance of a fixed wing Micro Aerial Vehicle.
- **Tasks**: Investigate the performance of different types of rectangular wings on Micro Areal Vehicle (MAV), keeping the fuselage the same and comparing the results to extract the best-performing rectangular wing planform.

Supervised by **Dr. Md. Rokunuzzaman** [rzaman@me.ruet.ac.bd]

(19 – 21) Dec, 2024 **Conference Paper**
9th BSME International Conference on Thermal Engineering, Dhaka, Bangladesh.

- **Title:** Numerical Investigation of the Aerodynamic Performance of a Biomimetic Fixed Wing Micro Aerial Vehicle.

Supervised by **Dr. Md. Rokunuzzaman** [rzaman@me.ruet.ac.bd]

(11 – 13) Dec, 2024 **Conference Paper**
6th International Conference on Mechanical, Industrial and Materials Engineering, ICMIME Rajshahi, Bangladesh.

- **Title:** Aerodynamic Performance analysis of a biomimetic based fixed wing for Micro Aerial Vehicle Applications.

Supervised by **Dr. Md. Rokunuzzaman** [rzaman@me.ruet.ac.bd]

RESEARCH SKILLS

Machinery	Operating Wind Tunnel, CNC Lathe Machine, CNC Milling Machine, Lathe Machine, Universal Testing Machine (UTM), Milling Machine, Shaper Machine, IC Engine.
Software Skills	MS Office, SolidWorks, Autodesk Fusion 360, AutoCAD, Ansys Fluent, ParaView, OriginLab, Google Docs, CANVA, Adobe Photoshop etc.

PUBLICATIONS (Ongoing manuscript for Publication tentative titles)

- **Book Chapter:** Biomimetics and the Application of the Leading-edge Tubercles of the Humpback Whale Flipper. Publisher: Elsevier.

PROJECTS

1. *Experimental Investigation of a Hybrid Solar PV/T Desalination System Using Solar Still*
   - Designed a new method of water desalination with an improvement of efficiency.
   - Capable of both solar panel cooling and fresh water production.

   Project members: Robel Ahmed, **Mohammad Raihan**, Md Kobir Hossain Mridha, Ashikur Rahman Ashik, Tanim Hasan.
   Role: Design, Performing Simulation and Field Work.
2. *Aerodynamic Performance Investigation of biomimetic inspired fixed wing Micro Aerial Vehicle (MAV)*
   - Designed a modified wing planform incorporating biomimetics at the leading edge.
   - Optimization of the position and amplitude of the tubercles.

   Project members: Hasibul Hasan Himel, **Mohammad Raihan**, Md Kobir Hossain Mridha.
   Role: Design of MAV, Performing Simulation and Field Work.

PERSONAL DEVELOPMENT

Dec 2024 to Feb 2025	**Basic Programming with Python** Instructed by: Institute of Information and Communication Technology (IICT), RUET. Organized by: Enhancing Digital Government and Economy (EDGE) project of Bangladesh Computer Council, ICT Division.
(07 - 09) Mar 2024	**Solar Energy: Basics and Applications** Instructed by: Institute of Energy and Environmental Studies (IICT), RUET
(09 – 21) Apr 2024	**Industrial Attachment** Instructed by: Bheramara 410 MW Combined Cycle Power Plant (CCPP).
Mar 2017	**Microsoft Office Management** Instructed by: Bangladesh Juba Unnayan Academy

LINGUISTIC PROFICIENCY

Bengali (Native language)
English (Fluent Working Proficiency)

INTERPERSONAL SKILLS

- Disciplined, Time management, Self-motivate, Leadership

HONORS, AWARDS AND EXTRA CURRICULAR ACTIVITIES

Project Showcase	**Champion:** Automated Rail Crossing Bar Presentation show at Science and Technology Fair 2016, held in 24-26 May 2016.
Awards	**President Scout Award** from the honorable president, Bangladesh Scout in 2017.
	National Education Board Scholarship, Primary School Certificate (PSC) in 2011.
Coordinated	**Presenting Author,** 9th BSME International Conference on Thermal Engineering, Dhaka, Bangladesh. (19 – 21) December, 2024. **Presenting Author,** 6th International Conference on Mechanical, Industrial and Materials Engineering, ICMIME Rajshahi, Bangladesh. (11-13) December, 2024. **Volunteer,** 6th International Conference on Mechanical, Industrial and Materials Engineering, ICMIME Rajshahi, Bangladesh. (11-13) December, 2024. **Volunteer,** Mechanical Engineering Alumni Association RUET, 1st Reunion of **MEAAR** held in (09 – 11) March, 2023. **Joint Secretary,** Brahmanbaria Engineering Student Association of RUET, (**BESAR)** Feb 2025 – Present. **Joint Secretary,** Kasba Poura High School Publician, June 2025 – Present. **Senior Chief Executive Member,** ASHRAE RUET Student Branch, Oct 2024- Present. **Assistant Petrol Leader**, Kasba Poura High School Scout Group, Jan 2014 – Jan 2017.

REFERENCES

Referee I
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Referee II
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