

MD FAHIM FAISAL

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ACADEMIC CREDENTIALS

Bachelor of Science in Mechanical Engineering

(February 2019 – February 2023)

Military Institute of Science and Technology (MIST), Bangladesh

CGPA: **3.89** on a scale of 4.00

Higher Secondary School Certificate (HSC)

(2018)

Adamjee Cantonment College, Bangladesh

GPA: **5.00** on a scale of 5.00

Secondary School Certificate (SSC)

(2016)

BAF Shaheen College Kurmitola, Bangladesh

GPA: **5.00** on a scale of 5.00

Achieved General Scholarship in SSC

RESEARCH INTERESTS

CAD, Control, Automation and Robotics, Modern Manufacturing, Automobile Engineering

RESEARCH EXPERIENCE

Undergraduate Thesis

(April 2022 – February 2023)

Title: Design, Fabrication and Experimental Investigation of an Improved Biomass Cooking Stove

Supervisor: Brigadier General Md Humayun Kabir Bhuiyan, Dean, Faculty of ME, MIST

- Evaluation of existing biomass technology and its improvement
- Effect of various biomass fuels on thermal performance

OTHER PROJECTS

Title: "PHOENIX 2.0" a Mars Rover of Mongol Barota - MIST Mars Rover Society (October 2021 - August 2022)

Associated with MIST Mongol Barota

- Designed and fabricated a rover to participate in University Rover Challenge (URC), USA and Anatolian Rover Challenge (ARC), Turkey competition.

Title: A Self-Balancing Cube Using Reaction Wheels Guided by Gyroscopic Effect (April 2021 - February 2022)

Supervisor: Dr. Dipak Kanti Das, Professor, Dept of ME, MIST

Associated with Integrated Design Project - Level 3

- Implemented motion and control system to the physical model using Teensy
- Used additive manufacturing to fabricate the project

Title: "Pollob" an Android App (2017)

Associated with Adamjee Cantonment College

PUBLICATIONS

"Development and Analysis of Additively Manufactured Non-pneumatic Tires for Mars Rover," *International Conference on Mechanical Engineering and Applied Sciences (ICMEAS) Conference Proceedings, 2022.* (Under review)

TRAINING

Design Engineer

(October 2021 - August 2022)

MIST Mongol Barota, Dhaka, Bangladesh

Responsibilities

- Created a detailed CAD model of the rover
- Ensured the rover's reliable operation
- Designed manipulator's mechanism
- Validated manufacturing process

Engineering Intern (Industrial Training)

(February 2022 - March 2022)

Bangladesh Industrial Technical Assistance Centre (BITAC), Dhaka, Bangladesh

- Organizational knowledge
- Various manufacturing processes
- Management
- Advance machining

CERTIFICATIONS

- **Certified SolidWorks Associate (CSWA) - Mechanical Design** (April 2022)
Issued by: Dassault Systèmes
- **Introduction to Self-Driving Cars** (July 2020)
Course Instructor: Steven and Jonathan, Associate Professor, Toronto Robotics and AI lab through Coursera

HONORS AND AWARDS

- **MIST Dean's List of Honor** for the excellent result in Level 1, 2, 3 and Level 4
- **University Merit Scholarship** for excellent merit positions in Level 1, 2, 3, and 4 during undergrad study
- **3rd Place at Anatolian Rover Challenge (ARC) Ground, Istanbul, Turkey:** An international rover competition for university teams to build Mars rover. (2022)
- **3rd Best Presented Paper in Conference:** Issued by International Conference on Mechanical Engineering and Applied Sciences (ICMEAS 2022). (2022)
- **3rd Place in Poster Presentation at Mechaniverse 1.0:** Department of ME, MIST. (2022)
- **1st Place in the Competition Entitled "SOLIDWARS Advanced":** Issued by MIST Aeronautics and Astronautics Club (MAAC). (2020)
- **1st Place in Programming Contest:** Neutrino ACC Science Club Adamjee Cantonment College. (2016)
- **Government Scholarship:** Bangladesh Ministry of Education based on the exam result of SSC. (2016)

SKILLS

- Programming: Python, C, Django
- LaTeX, MS Office: Word, Excel, PowerPoint
- Software: SolidWorks (CSWA), Visualize, MATLAB, Ansys, KeyShot
- Experienced in collaboration and event management
- Dedicated, supportive and hardworking

EXTRA-CURRICULAR ACTIVITIES

- **Representing Bangladesh** in Anatolian Rover Challenge (ARC) Ground, Istanbul, Turkey
- Volunteer and participated in several departmental and university programs such as Orientation and Farewell Events, Mechanical Engineering Day, Conference Ceremony etc.
- **Poster Presentation** at Mechaniverse 1.0 (2022)
- **Volunteer** at ICMEAS 2022, Faculty of Mechanical Engineering, MIST
- **Vice president, Technical MOTO MIST Automotive Club**
- **Participated** in various campus competitions during both undergraduate and college time

REFERENCES

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