Md. Fahad Rahman

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EDUCATION

Bangladesh University of Engineering and Technology (BUET)

Dhaka, Bangladesh

B.Sc. in Mechanical Engineering

2012 - 2017

Course

University of Michigan

Ann Arbor, MI (Online)

Introduction to Thermodynamics: Transferring Energy from Here to There

Feb. 2020 - Apr. 2020

RESEARCH EXPERIENCE

Undergraduate Thesis

2016 - 2017

Bangladesh University of Engineering and Technology (BUET)

Dhaka, Bangladesh

Topic: Modification of the Experimental Setup for Measuring Viscoelastic Response of Super Elastic Shape Memory Alloy (SMA) Rod under Bending and Twisting

Supervisor: Dr. M. Ashiqur Rahman, Professor, Department of Mechanical Engineering, BUET

- Objective: Examined the stress reduction of superelastic NiTi shape memory alloy rods subjected to bending with constant strain and torsional loading at different angles, and contrasted the findings with those of conventional materials.
- Method: Performed experimental testing utilizing a custom-built apparatus that combined wooden and metal elements, equipped with a semi-automatic data logging system governed by an Arduino microcontroller.
- Setup: Developed an economical testing apparatus with a quarter circle for bending, an L-shaped platform, and a ratchet-protractor mechanism for torsional loading, utilizing an Arduino Mega and Force Sensing Resistor (FSR) for real-time load measurement and visualization.
- Results: Exhibited exponential stress relaxation during bending, in accordance with Maxwell's viscoelastic model. Torsional stress relaxation exhibited consistency across angles (15° to 90°), confirming the material's time-dependent response to torsional loads.

PROFESSIONAL EXPERIENCE

Admin and Accounts Officer

Jan. 2022 - May 2022

HISP Bangladesh Foundation

Dhaka, Banqladesh

- Upgraded payroll system from manual cheques to Electronic Funds Transfer (EFT), reducing processing time by 70% and eliminating errors.
- Developed and deployed a custom financial tracking app, eliminating paper loss and reducing retrieval time by 87%

Administrative Assistant

Jan. 2020 - Oct. 2021

World Health Organization (WHO)

Dhaka, Bangladesh

- Provided essential support to the Rohingya health intervention that strengthened the existing system.
- Facilitated a critical government-International Committee of the Red Cross (ICRC) health initiative by managing essential financial logistics, directly enabling refugee healthcare services.

Administrative Assistant

Nov. 2017 – Nov. 2018

Directorate General of Health Services

Dhaka, Bangladesh

- Facilitated a Joint Planning Workshop for the Rohingya health intervention, drafting a strategy with NGOs.
- Provided administrative support for Rohingya health intervention, Memorandum of Understanding (MoU) signing, salary disbursement, and team coordination, ensuring smooth operations.

Industrial Trainee

Aug. 2016 (3 weeks)

Khulna Power Company Ltd.

Khulna, Bangladesh

- Observed and learned the process of completely overhauling a huge Wartsila Heavy Fuel Oil (HFO) engine.
- Learned about industry safety rules by taking part in a plant-wide fire safety drill.

TECHNICAL SKILLS

CAD: SolidWorks

Programming Languages: Python, MATLAB, C

Web & Mobile Frameworks: React, Node.js, React Native

Database & Web Services: MongoDB

Scientific Publishing: LaTeX