

# Md. Akhtaruzzaman Nadim

Mechanical - Automotive Engineer



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## Summary

I am looking for a prestigious platform where I can put all my effort into doing something unique and innovative in both individual and group activities to take up significant challenges with dedicated commitment.

## Education

### Bachelor of Engineering (Mechanical - Automotive) with Honours

University Technology Malaysia | Johor, Malaysia

2017 - 2022

- Result: CGPA 3.05 out of 4.00
- Major in Mechanical Engineering and Minor specialization in Automotive Engineering
- Bachelor Thesis Title: Visualization of Full Car Ride Model motions in the Virtual World

### Diploma in Engineering

Dhaka Polytechnic Institute | Dhaka, Bangladesh

2011 - 2016

- Result: CGPA 3.63 out of 4.00
- Department: Automobile Technology
- Duration of the degree: 4 Years

### Secondary School Certificate (SSC)

Rayer Bazar High School | Dhaka, Bangladesh

2001 - 2011

- Result: GPA 4.63 out of 5.00
- Department: Science
- Mathematics (A+), Physics (A+), Chemistry (A+), Biology (A+) and Higher Mathematics (A+)

## Work Experience

### Research & Development Intern | NEUTO Sdn. Bhd. | Johor, Malaysia

20/07/2020 - 09/10/2020

- Design a Hydrogen Canister Water Tank in SOLIDWORKS for an automatic hydrogen canister refuelling machine.
- Analyse the drawn hydrogen canister tank using FEA (Finite Element Analysis) to ensure that the tank can carry all the hydrogen cylinders properly and during refuelling to maintain a constant temperature.
- Design different types of components related to the existing product by considering the GD&T (Geometric Dimensioning and Tolerancing) in SOLIDWORKS.
- Design a Hybrid Air-Conditioning System for Heavy Vehicle to reduce fuel consumption during idle speed.
- Assist in the installation of the HEEV (Hydrogen Energy Efficient Vehicle) system in the heavy vehicle by visiting different companies with a team.
- Maintenance of Smart Hydrogen Engine Cleaning System so that all the systems work properly during the operation after installation in the workshop.
- Assist in the installation of Smart Hydrogen Engine Cleaning Systems in various automobile repair and maintenance workshops.
- Create installation manuals for their various products.
- Weekly meeting with the CEO and supervisor to show my work through a face-to-face presentation.

## Work Experience

**Repair and Maintenance Intern | BMW Bangladesh | Dhaka, Bangladesh**

**01/09/2015 - 23/11/2015**

- Assist a BMW service specialist to complete regular BMW maintenance to ensure optimal safety and driving comfort.
- Assist to complete BMW vehicle inspections with highly qualified BMW service experts to ensure performance and safety while maintaining the highest quality standards of BMW.
- Assist in BMW engine oil service including the changing of engine oil, oil filter, ignition plug, air filter and fuel filter to meet the standards of a high-quality BMW engine.
- Assist a BMW service specialist to inspect BMW's air conditioning system to make sure everything is working perfectly, replacing the coolant if necessary.
- Assist BMW service experts in the pre-delivery inspection (PDI) process.

## Language Proficiency

**English:**  
Full Professional Proficiency

**Bengali:** Native

**Arabic:**  
Limited Working Proficiency

**German:**  
Elementary

**Malay:**  
Limited Working Proficiency

## Awards & Achievements

- Best Design Award in Introduction to Design Competition organized by School of Mechanical Engineering, UTM.
- 1<sup>st</sup> Place (Best Presentation Award) in Young Leaders Workshop 2018 at UTM.
- 1st Class First Position in Department of Automobile Technology in Dhaka Polytechnic Institute.
- Government scholarship for outstanding results in all semesters at Dhaka Polytechnic Institute.

## Technical Skills

- Microsoft Office (Word, Excel, Powerpoint)
- SOLIDWORKS
- MATLAB
- Autodesk Inventor
- ANSYS
- C Programming
- Python Programming
- Arduino Programming
- Video Editing

## Interpersonal Skills

- Ability to work in a fast-paced environment
- Ability to work alone or as part of a team
- Adaptability and flexibility
- Analytical thinking, problem-solving, and creativity
- Excellent knowledge of information technology
- Excellent communication and leadership skills
- Fast learning ability with excellent listening skills
- Strong background in the mechanical engineering field
- Strong knowledge of current automotive technology

## Projects

- Visualization of Full Car Ride Model motions in the Virtual World. (Bachelor's degree Thesis)
- Finite Element Analysis on a Bicycle Frame.
- Design a powertrain for a 7-seater multi-purpose vehicle.
- Depth study on the advancement of Hybrid Car Technology.
- Design and Development of a Portable Recreational Electric Car.
- Develop an electric mini go-kart with a breaking and speed control system.
- To design and develop a toppling dominoes structure arrangement to slow down the dominoes effect.
- Develop a full car ride model in MATLAB to determine the ride comfort performance level of the vehicle.
- Design & develop a sorting machine capable of sorting recyclable materials, such as aluminium cans, plastic bottles, and Boxed Drinks.
- Design and Development of an electronic control system to switch on a DC motor based on the distance measured by the ultrasonic sensor.

## Professional Skill Certificate Courses

- ISO 9001:2015 Quality Management System Requirement
- Occupational Safety, Health & Environment (OSHE)
- Design Thinking for Entrepreneurs
- Talent and Competency Management
- English Communication Skills for Graduating Students (ECS)

## Courses & Certifications

- Advanced Manufacturing Process Analysis – University at Buffalo (Coursera)
- Autodesk Inventor 2022 Essential Training (LinkedIn Learning)
- Autodesk Inventor Sheet Metal Design (LinkedIn Learning)
- Learning CATIA v5 (LinkedIn Learning)
- CATIA V5\_ Class A Surfacing (LinkedIn Learning)
- Fusion 360 Essential Training (LinkedIn Learning)
- MATLAB 2018 Essential Training (LinkedIn Learning)
- Python Essential Training (LinkedIn Learning)
- SOLIDWORKS 2020 Essential Training (LinkedIn Learning)
- SOLIDWORKS Simulation for Finite Element Analysis (LinkedIn Learning)

## Extra Cocurricular Activity

In addition to my academic studies, I have actively participated in many co-curricular activities at my university. I have participated in more than 130 events and programs. Most of the events and programs are related to academics, innovation, leadership, social, cultural, entrepreneurship, sports, volunteer activities, etc. List of some notable programs:

- Participated in Developing a Vehicle from Idea to Production Webinar organized by SAE Collegiate Chapter UTM (SAE-UTM).
- Participated in Developing a research proposal organized by PGSS-FABU UTM.
- Participated in Total Engineering Solution - Walton Global Dream organized by IEEE BUET Student Branch.
- Participated in James Dyson Foundation Consultation Space organized by AIESEC in Malaysia, Johor Bahru.
- Participated in Ambassador Global Lecture organized by UTM International.
- Participated in How to increase research productivity organized by Postgraduate Student Society (PGSS), MJIIT and UTM.
- Participated in EndNote Workshop for Literature Review Writing organized by Postgraduate Students Society, Faculty of Science, UTM.
- Participated in MATLAB workshop for Data Analysis organized by Postgraduate Student Society, Faculty of Science, UTM.
- Participated in James Dyson Foundation Workshop organized by UTM Career Center.
- Participated in Industrial Visit to Proton Sha Alam organized by Society of Automotive Engineers, UTM.
- Participated in Cloud Study Jam Big Query Basis for Data Analysis organized by Developer Student Club (DSC), UTM.
- Participated in Young Leaders Workshop 2017 organized by PUSAT Counselling collaboration with 5 Excellence Tracks Program me (5ETP).
- Participated in SAE-M 7<sup>th</sup> Lecture Series: MATLAB Calibration and Simulation of Powertrain organized by Student Chapter Automotive Engineering, UTM.
- Participated in UTM Online Global Classroom (OGC) on Social Sciences and Islamic Studies conducted at Faculty of Social Sciences and Humanities, UTM.
- Participated in Creative-Preneur: Artech Workshop and Hekaton organized by UTM Center for Student Innovation and Technology Entrepreneurship (UTMXCITE), UTM

From these events and programs, I learned: the ability to work under pressure, logical and analytical thinking, critical thinking, creative thinking, time management, problem-solving skills, leadership skills, communication skills, technical skills, teamwork, or cooperation skills and so on.

## References

**Prof. Ir. Dr. Shuhaimi Bin Mansor**  
(Academic Advisor)

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**Ts. Dr. Saiful Anuar Abu Bakar**  
(Bachelor Thesis Supervisor)

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