AKASH BAROI

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OBJECTIVES

I want to utilize my conceptual knowledge and technical skills along with creativity, enthusiasm, dynamism and thus developing my workability to utmost at engineering sector.

EDUCATION

Ahsanullah University of Science & Technology, Dhaka - *Bachelor of Science in Mechanical Engineering* **Nov 2015- Oct 2019**
Relevant Coursework: Power Plant Engineering, Heat Transfer, Aerodynamics, IC Engine fundamentals, Automobile Engineering, Solid Mechanics, Fluid Mechanics, Machine Design, Control Engineering, Refrigeration & Air Conditioning *CGPA- 2.96/4.00*

Birshreshtha Munshi Abdur Rouf Public College, Dhaka – Higher Secondary Certificate in Science **June 2012- July 2014**
Relevant Coursework: Physics, Chemistry, Biology, Mathematics, Higher Mathematics *GPA-5.00/5.00*

Rayer Bazar High School, Dhaka – Secondary School Certificate in Science **Jan 2010-Mar 2012**
Relevant Coursework: Physics, Chemistry, Biology, Mathematics, Higher Mathematics *GPA-5.00/5.00*

THESIS & PROJECTS

Thesis: Redesign of Water Wave Generator to Harvest the Wave Energy.
Supervised by Prof. Dewan Hasan Ahmed, Ahsanullah University of Science & Technology
Goal: Redesign and reconstruction of a faulty wave generator, characterize the water wave, behavior in different wave generating member, Convert wave energy to useable energy.
Implementation: Slab, Wave operating members, motor base construction. 2hp motor installation with torque conversion gear system, height and load sensor, SolidWorks and MS excel to design and Data Analysis.
Impact: Non-operative to fully automated water wave, Findings of wave behavior and characteristics, harvest energy, an asset to AUST Fluid Mechanics Lab.

Projects:

Hybrid Formula Car

- Built a Hybrid Formula Car that was the **first ever** formula type car for Bangladesh.
- Implemented IC engine and motor in hybrid system, Cast Iron and Aluminium at chassis, fiberglass at fabrication, SolidWorks at design section.
- Participated on Hybrid Vehicle Challenge (HVC) -2017 organized by Imperial Society of Innovative Engineers (ISIE) at Buddh International Circuit, Uttar Pradesh, India.

Honor & Award:"**Go Green"** award for the best fuel economical car.
"**ISIE Future HVC"** award for the highest potentiality in a team.

Modified Tesla Turbine

- Constructed and modified the Tesla Turbine from the conventional design of scientist Nikola Tesla.
- Utilized multiple discs with precise inner cut, SolidWorks at design section, rotation principle by Boundary Layer Effect.
- Implemented at internal combustion engine to utilize the flow of exhaust gas and got the efficiency of 77.5%, participated on Intra-University project competition at BUET.

Design of Positive Displacement Air Compressor

- Solidworks based 3D design of a Positive Displacement Air Compressor.
- Presented at CAD contest-17 powered by MPE association.

TECHNICAL SKILLS

Tools/Frameworks: SolidWorks, MATLAB, MS Word, MS PowerPoint
Language: C Programming
Data Analysis: Microsoft Excel
Operating System: Windows, MacOS, Linux

LEADERSHIP & INVOLVEMENT

Presenter of Mechanical Engineering Dept. of AUST during the accreditation of Institute of Engineers Bangladesh (IEB)
Coordinate and mentored students at AUST Innovation and Design Club
Executed departmental sports tournament for 900 students
Volunteer: Mechanical Job Fair organized by Osongaiyito ME-5Th Batch
Organizer: Conducted workshop on Automobile Engineering

REFERENCES

Dr. Dewan Hasan Ahmed: Professor, Department of MPE, AUST, +8801720-164490, dhahmed@hotmail.com;
Dr. Md.Kharshiduzzaman; Assistant Professor, Department of MPE, AUST, +8801717402275, md.kharshiduzzaman@gmail.com