

MD IFTHA KHAR

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 Md Iftha Khar |  Md Iftha Khar

EDUCATION

- **Bangladesh University of Engineering and Technology (BUET)** Feb 2011 - Mar 2016
Dhaka
BSc in Mechanical Engineering
 - GPA: 3.61/4.00 (85 percentile)
 - Relevant Module: Fluid Machinery, Fluid Mechanics 1, Fluid Mechanics 2, Applied Engineering Mathematics, Numerical Analysis

- **Notre Dame College** 2008-2010
Dhaka Board
Higher School Certificate (HSC)
 - Grade: 5.00/5.00 (Golden)

TEST SCORE

- **General Revised Examination (GRE)** 25 Sep 2024
Dhaka
Total score- 321
 - Quant: 165, Verbal: 156

- **IELTS** 27 Dec 2024
Dhaka
Total Band Score: 7.5
 - Reading: 8.5, Listening: 7.5, Speaking: 7.0, Writing: 6.5

RESEARCH INTERESTS

- Thermodynamics and Fluids
- Mechanical Power Generation
- Robotics
- Advanced Manufacturing

RESEARCH EXPERIENCE

- **Computational Fluid Dynamics** Jan 2015 - Mar 2016
Department of Mechanical Engineering, BUET
Supervisor: Dr Mohammad Ali, Professor
 - Moving surface reduced drag by on NACA 0012 airfoil
 - Developed a NACA 0012 mesh model in Ansys workbench for finite element analysis
 - Developed model had been validated with experimental data for further numerical analysis
 - Conducted in-depth numerical analysis with varying speed of moving surface and changing angle of attack

PATENTS AND PUBLICATIONS

C=CONFERENCE, T=THESIS

- [C.1] Md Iftha Khar, et al. (2018). **Numerical investigation of drag reduction using moving surface boundary layer control (MSBC) on NACA 0012 airfoil.** In *AIP Conference Proceedings 1980*, 040011 (2018), AIP Publishing DOI: 10.1063/1.5044321
- [T.1] Md Iftha Khar, et al. (2016). **Drag reduction by Moving Surface Boundary Layer Control (MSBC) on NACA 0012 airfoil.** The thesis is submitted under the course *ME 400 Project and Thesis*.

PROJECTS

- **Dynamic Object-Oriented Simulation of a VVER-1200 Steam Generator in Python** Oct 2025 - Dec 2025
Rooppur NPP Training Center, Rooppur NPP
 - Built a dynamic thermal-hydraulic and control model of a VVER-1200 steam generator in Python using object-oriented design
 - Included water level and steam pressure control loops
 - Validated model behavior against Rooppur NPP full-scope simulator data.
- **Commissioning of Full Scale Simulator, Rooppur NPP Training Center** Sep 2021 - Jun 2022
Rooppur NPP Training Center, Rooppur NPP
 - Understanding the scope of the Simulator and developing the element property of the simulation
 - Reviewing commissioning program and implementing the program to validate and verify the software
- **Identifying dimensions of cubic object moving on a conveyor belt** Nov 2013- July 2014
Instrumentation and Measurement Sessional, BUET
 - syncing IR sensors and Sonar sensors with ATMega 32A micro-controller
 - Coding for ATMega 32A micro-controller
 - syncing display with micro-controller
 - Developing whole setup with conveyor belt for carrying cubic object

JOB EXPERIENCE

- **Nuclear Power Plant Company Bangladesh Ltd (NPCBL)** Feb 2018 - Present
Senior Assistant Manager

Pabna, Bangladesh

 - Senior Instructor of FSS for MCR Operator (Turbine Shop), Rooppur NPP Training Center
 - * Studying operation of Turbine at different power level
 - * Analysing various abnormal operation and their effect on power production and overall safety of Nuclear Power Plant
 - * Conducting analysis on accident scenarios and their effect on safety of Nuclear Power Plant
 - * Conducting training and creating training modules for Rooppur NPP personnel
 - Senior Engineer: Field supervision, Construction of Rooppur NPP Project, Turbine Building (10-20UMA)
 - * Commissioning systems and sub-systems
 - * Individual and system integrated testing of the equipment
 - * Installing the equipment on design position
 - * Incoming inspection of equipment on arrival in-situ

PROFESSIONAL TRAINING

- **Training on Turbine Operation** Feb 2019 - July 2020
Rosatom Technical Academy, Russia
 - Understanding the theoretical concepts of turbine and its subsystems design.
 - Performing Turbine operation on Simulator and Practical course on mechanical equipment assembly and disassembly.
 - Job shadowing on field and Main Control Room (MCR) under supervision at Novovoronezh NPP
- **Power Plant Visit** Nov 2013- July 2014
Organizer: Bangladesh Power Management Institute
 - visit and introduction to operation of Payra 1320 MW Thermal Power Plant (1st Phase), Ghorashal Power Station, Ashuganj CCPP (South) and Ashuganj 450MW CCPP (North)

SKILLS

- **Simulation software:** Full Scale Simulator (Rooppur NPP), Ansys Fluent
- **CAD software:** Solidworks
- **Analytical software:** Matlab
- **Programming Language:** Python, c
- **Research Tools:** Latex, tecplot 360, Digitizer etc.

HONORS AND AWARDS

• Dean List

Got listed on Level 4 Term 1 and Level 1 Term 1

- Students who got GPA 3.75 or above in the term

Department Mechanical Engineering, BUET

• HSC Scholarship

Position 256

2010

- The award is very prestigious considering the national competition
- The scholarship is provided considering the HSC exam marks

• National Junior Scholarship

2005

placed in Talent Pool list

- The exam was under Dhaka Education Board
- The award is very prestigious considering the competition

VOLUNTEER EXPERIENCE

• Co-Founder

2008-present

Dewanganj, Jamalpur

Zahid Smriti Songho

- Raised money
- Distributing foods and necessary items to flood affected people
- Distributing foods and winter clothing to the poor
- Organizing reception program to uphold meritorious student