

# SAAD AHMAD

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## Education

**NUST** Islamabad, Pakistan  
Bachelors of Mechanical Engineering (CGPA: **3.58**) (2021 – 2025)

During the past three years, I've gained command in Ansys, Abaqus, SOLIDWORKS, MS Office and 3D modeling. I've done much research-based semester projects. I have a strong academic background.

**Government College University** Lahore, Pakistan  
I participated in societies campaigning and event management. Got 90% marks in F.Sc. (pre-engg). (2018 – 2020)

**LDA** Lahore, Pakistan  
I rocked my 10 years of schooling with top-notch grades and excellence. My name was written outside my school for several years as I scored 97% in matriculation. (2006 – 2018)

## Experience

**Matrix Engineering PVT Limited** Lahore, Pakistan  
**Internee** (08/2024 – 09/2024)

- Composites
- Designing
- Manufacturing

**Atlas Power Plant** Lahore-Sheikhupura Road, Pakistan  
**Internee** (07/2024 – 08/2024)

- Included internship at Atlas Honda Limited
- Electrical-mechanical operations
- Engines, turbines & plant maintenance
- Projects & presentations

**TICS PVT Limited** Lahore, Pakistan  
**Internee** (08/2023 - 09/2023)

- Calibration
- Cathodic protection
- Instrumentation

**Call Center** Lahore, Pakistan  
**Closing Manager** (2020-2021)

- Experienced professionally making outbound calls and receiving inbound calls.
- Able to provide my customers with satisfaction and reliability. Collaborated with sales to enhance customer experience and coordinate promotions. Enhanced time management skills.
- Being awarded "Most Sales Employee of the month" several times.
- Being awarded with "No sale drop for a month" award.

## Projects

**Design & FEM analysis of Type V Cryogenic Cylinders (-200 C) (FYP)**

- In my ongoing FYP, research, FEA (ANSYS, ABAQUS), designing and experimentation of composites cylinder is done. In the next phases, research paper will be published. This is an industry sponsored mega project.

**Fabrication & Installation of Li-Ion Battery**

- The making and assembling of the sustainable and long term rechargeable electric-bike battery taking the 4.7V lithium-ion cell as a standard unit entity.

### **Hydraulic Press Machine**

- Water was used as a moving fluid. The project was done to demonstrate the practical application of Pascal's law and rules of mechanics.

### **Analysis of Aerodynamics & Stall Behavior of NACA 23018 using Ansys**

- Investigated the comparison of Ansys model of aerofoil NACA 23018 and its physical demonstration experimentally. The primary objectives were to compare the stall location, critical angle of attack, lift and drag behavior and its pressure and velocity distribution at different angles of attacks.

### **Design Validation of a Morphing Wing in an Aircraft**

- Designing the diameter of the bolt that would be used to securely join the morphing wing of the airplane to its fuselage. The purpose behind this design was to ensure the utmost safety and structural integrity of the entire system.

### **Design Validation & Stress Analysis of a Wrecking Crane**

- Design validation of a wrecking crane by performing a detailed stress analysis. The boom was constructed using an I beam made of structural steel, and the wrecking ball, of iron. The dimensions of the H beam were carefully considered to ensure optimal structural integrity and performance.

### **Four-Bar Release Latch Mechanism**

- Designing, 3D printing and analysis of a release latch mechanism.

### **Fluid Flow Past a Circular Cylinder**

- Very deep analysis of unsteady, incompressible flow past a circular cylinder. Pressure & velocity contours, lift & drag coefficients, numerical & literature validations.

### **Designing, Analysis & Testing of a Mass Tuned Damper (2 DOF System)**

- Phenomenon of transferring the vibrations from primary body to tuned mass for safety purposes. Finite Element Analysis and experimental validations.

## **Certifications**

### **Skilled In MS Suite**

- I have done online courses in MS Word, Power Point and Excel. I am an expert in Report Writing.

### **Distinctions in Competition**

- Got 3<sup>rd</sup> position in mechanism designing competition.

### **Higher Achiever**

- I have been thrice bestowed with the award of "Higher Achiever" with the highest 3.93 GPA ever.

## **Skills & Interests**

**Technical:** Ansys, Abaqus, MS Suite, Design, Analysis, Report Writing, FEA & CFD

**Language:** Urdu, English, Punjabi

**Laboratory:** Research and Development, about publishing research paper

**Interests:** GYM, Badminton, Gardening, Cooking, Travelling, Photography, Coin-collection