

# Saurabh Powar

B.Tech.- Mechanical Engineering

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## Experience

### Wilo Pumps

June 2023-Present

- Automation in Bill of Material (BOM) Creation for Multi-Stage Pumps

Establishing relationship between components and stages of pumps. Implementing **Configurator in SAP** generating **Automatic BOM** according to order requirements

- Classification of Components and Standardization

**Classification of Components** based on pumps type and **Database creation** containing important functional dimensions and features of components

- Development of Excel VBA tools for automation
  - Linking of SAP and Excel via VBA for drawing attachment automation, resulting in **80% time reduction**
  - Creation of text manipulation and pattern recognition tools for extracting important features from mass data

### Team Niyudrath Racing | Autosports Club (SAEINDIA BAJA)

2020-2023

- Design, Fabrication, and Testing of All Terrain Vehicle

Development of Suspension and Steering subsystems for **off-road** application considering **load conditions** and maintaining optimum **vehicle control**, while **reducing weight** and optimizing vehicle for maximum track performance

- Development of a virtual vehicle model for testing and improving the performance of ATV using IPG Carmaker

### Binani Technologies India (Design Intern)

June 22 – Sept. 22

- Chassis Design of 4-wheeler EV considering battery packaging requirements, strength, and vehicle hard points

## Academics

- Mechanical Engineering (B.Tech.) - MIT Academy of Engineering, Pune | **CGPA: 8.36**
- HSC – K.C. College Mumbai | **Percentage: 76.77%**

## Academic Projects

### Optimization of CVT for All Terrain Vehicle

- Continuously Variable Transmission(CVT) designed by reverse engineering from OEM Gaged GX-9 transmission for better weight optimization along with increased tunability options for better adaption to terrain condition

### Effect of surface roughness on boundary layer using CFD (Research Paper)

- CFD study included variations of surface roughness to observe change in boundary layer thickness, laminar to turbulent transition and variation in viscous force

## Position of Responsibility

Team Captain and Vehicle Dynamics Lead | Autosports Club

*2022-2023*

- Leading the team through the SAE BAJA 2023 competition and coordinating the vehicle's development from the design to the testing phase

## Achievements

- **All India Rank (AIR) 9** in SAEINDIA BAJA 2023 along with **AIR 1** in Go-Green and **AIR 3** in Validation Event
- **AIR 2** in Go-Green in SAEINDIA BAJA 2021 and BAJA 2022
- **AIR 5** in drone competition at **IIT Bombay Techfest 2020**

## Skills

Product Design, MATLAB, Python, C/C++, VBA, ANSYS, OpenFoam, NX, CATIA V5, Solidworks, Autocad, FMEA, GD&T