

Mohit Meena

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EDUCATION

- **Indian Institute of Technology(IIT) Patna** Patna, India
B.Tech in Mechanical Engineering. CPI: 6.18 (till 5th sem) July 2023 - May 2027 (Expected)
- **Kendriya Vidyalaya No.2 Army Area Jhotwara** Jaipur, India
Senior School Certificate Examination, CBSE. Percentage: 71.6% Apr 2022 - March 2023
- **Kendriya Vidyalaya No.2 Army Area Jhotwara** Jaipur, India
Secondary School Certificate Examination, CBSE. Percentage: 93.6% Apr 2020 - March 2021

PROJECTS

- **Formula Students Car** December 2023 - Present
At IITP Motorsports IIT Patna
 - Led a team of 25 members to design and build a Formula Student car, improving vehicle performance.
 - Innovated a gear-shifting mechanism that significantly reduced shifting time, increasing driver comfort.
 - Developed and evaluated the air-intake geometry and fluid-flow behavior in the throat section of an intake manifold, achieving a Mach number of **0.85** using ANSYS Fluent.
 - Fabricated the **chassis** for a Formula Student race car, ensuring precise assembly, structural integrity, and compliance with competition safety standards.
 - Conducted detailed CFD analysis to reduce drag, effectively optimizing aerodynamic performance.
- **AI-Assisted Elbow Exoskeleton for Upper Limb Therapy Exercises** July 2025 – Present
Under Dr. Jyotindra Narayan IIT Patna
 - * Designed **2-link** elbow exoskeleton in **SOLIDWORKS**, aligning with rehabilitation requirements and actuator capabilities for patient safety and effectiveness..
 - * Developed a mathematical model for a **2-link** elbow exoskeleton using **MATLAB**, integrating anthropometric data and minimum-jerk trajectory algorithms to optimize elbow torque.
- **Stair Climbing Wheel Chair** July 2024 - July 2025
Under Dr. Karali Patra and Dr. Anirban Mahato IIT Patna
 - * Engineered and assessed a wheelchair frame capable of safely supporting loads up to **120 kg**, ensuring long-term structural reliability. .
 - * Researched, developed, and optimized the stair-climbing mechanism, improving efficiency.
- **Air Hammer** June 2025
Under Dr. Karali Patra IIT Patna
 - * Created a dental air hammer with a **30% higher stroke rate**, resulting in smoother tooth extraction and improved bone-filing performance.
 - * Reduced impact force by 40 percent to minimize discomfort while ensuring effectiveness and precision.
 - * Improved ergonomics and control, improving usability and reducing fatigue during procedures..

SKILLS/RELEVANT COURSEWORK

- **Core Courses:** Thermodynamics, Fluid Mechanics, Heat and Mass transfer, System dynamics and Controls, Manufacturing Technology, Applied Thermodynamics
- **Softwares Used:** SolidWorks, ANSYS Fluent, Fusion 360, MATLAB , ANSYS Mechanical
- **Programming Languages:** C, C++ and Python

SOCIETIES/EXTRA-CURRICULAR ACTIVITIES

- **Captain** July 2025- Present
IITP Motorsports
- **Coordinator** July 2025- Present
Students Council of Mechanical Engineers (SCME)
- **Sub Coordinator** Mar 2024 – Apr 2025
RSP Sub Coordinator, Celesta (Annual Techno-Management Fest), IIT Patna
- **Sub Coordinator** Nov 2025 – Present
Events Sub Coordinator, Career Development and Counselling (CCDC, formerly TPC), IIT Patna

ACCOMPLISHMENTS

- * Secured an All India Rank of **1046** in **JEE Advanced 2023**, placing within the top 36% of all qualified candidates in ST category. .
- * “Placed ahead of nearly 67% of candidates in ST category in JEE Mains 2023.” .