

PRASHANT BHUSAL

MECHANICAL ENGINEERING STUDENT

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PROFILE

Fourth-year Mechanical Engineering student at Kathmandu University with a strong foundation in mechanical systems. Interested in industrial operations, manufacturing, maintenance, and energy systems. Seeking an internship to gain practical industry experience, apply engineering knowledge, and develop professional skills.

PROJECT EXPERIENCE

"Numerical Study of Electrostatic Precipitator (ESP) for Flue Gas Particulate Removal"

Feb 2026 – Present

- Numerically studied and optimized an Electrostatic Precipitator (ESP) for efficient removal of particulate matter from flue gas using electrostatic particle collection.

"Thermal Load Analysis, HVAC System Sizing, and Energy Performance Optimization of a Residential Building"

Academic Mini Project, 2026

- Calculated residential cooling and heating loads considering occupancy, ventilation, envelope characteristics, and heat gain/loss through walls, roof, windows, and infiltration.
- Sized HVAC equipment and selected a suitable system configuration based on calculated load requirements to ensure efficient thermal comfort.

"Data Driven Approach to Predict the Energy Consumption of EVs Using Real World Data"

Mar 2025 – Feb 2026

- Developing the energy prediction model of EVs using machine learning.

"A Low-Cost Air Quality Monitoring System"

Apr 2024 – Mar 2025

- Designed and fabricated a low-cost air quality monitoring system, which can collect Indore air pollution data.

EDUCATION

Bachelor of Engineering

Major in Mechanical Engineering, Kathmandu University

2022 – Present

Higher Secondary Education

Kalika Manavgyan Secondary School.

2020 – 2022

TECHNICAL SKILLS

- Python / Data Analysis & Interpretation
- SolidWorks
- COMSOL Multiphysics
- Sensors & DAQ basics

ADDITIONAL INFORMATION

- Other Skills: Communication, Documentation, Leadership, Critical Thinking, Teamwork and Collaboration.
- Languages: English, Nepali.
- Certifications: Certified Tutor – Basic Electronics Workshop, Robotics Club, Kathmandu University; taught secondary-level students about sensors and fundamental electronics.
- Activities: Serving as Secretary in the ASHRAE Student Branch – Kathmandu University.