

SAUBHAGYA PANDITA

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EDUCATION

MS in Mechanical Engineering

University Of Washington, Seattle

September 2024 - May 2026

Bachelor Of Technology in Mechanical Engineering

National Institute Of Technology, Hamirpur

CGPA: 8.53/10.00

November 2020 - May 2024

SKILLS AND INTERESTS

Interests	Fluid mechanics, Heat transfer, CFD, MEMS Design, Sustainable Energy Engineering, Optimization techniques, Operations Research, Thermodynamics, Modeling and Simulation
Software	SolidWorks, ANSYS Mechanical, ANSYS FLUENT, UltiMaker Cura, MATLAB, Python

PROJECTS

Parametric investigation of Natural convection heat transfer inside a triangular enclosure

Major Project as a part of curriculum

August 2023 - May 2024

- Performed experiments on a custom-made triangular enclosure test rig to study natural convection by calculating the Nusselt number for various parameters.
- Applied SVR and ELM for obtaining a highly accurate regression model.

Aerodynamic analysis of a novel bladeless wind turbine using airfoils.

Research internship

May 2023 - July 2023

- Designed and fabricated a prototype of a bladeless wind turbine using PLA+ as 3D printing material.
- Developed a MATLAB Image processing code to analyze images of the oscillation experiments.

Ferrographic study of Biofuel

Minor Project

February 2023 - April 2023

- Performed Ferrography on various biofuel samples taken at different testing loads.
- Analyzed wear particle characteristics of biofuel samples using a compound microscope to identify qualitative features by matching them to a standard almanac.

Tire Pressure Monitoring System Analysis

Minor Project as a part of curriculum

October 2022 - November 2022

- Performed electrodynamic analysis of a capacitive MEMS sensor using COMSOL.
- Performed structural analysis using the static structural module.

INTERNSHIPS

SURGE Summer Research Internship,

Indian Institute of Technology, Kanpur

June 2023

Industrial Internship at a HPSEBL Hydroelectric Powerplant,

Baner Power House, Jia

July 2022

EXTRA-CIRRICULAR

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| • Treasurer, Society Of Mechanical Engineers (S.O.M.E.) | September 2023 |
| • Volunteer at an NGO for underprivileged children named Literacy Mission , NIT Hamirpur | January 2021 |
| • Student Representative at Vindhyanchal Boys Hostel | July 2023 |