

Aim to improve the standard of living by developing disruptive technologies that can be used for daily chores by industries and households.

SANKARSHAN VERMA

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👤 Sankarshan Verma

Education

- **B.Tech in Mechanical Engineering**
Indian Institute of Technology Ropar
2013 – 2017 | GPA: 8.36/10
- **All India Senior School Certificate Examination**
CJS Public School
2012 - 2013 | Score: 91.6%

Work Experience

Graduate Engineer Trainee

Tata Motors | Engineering Research Centre, Pune

August 2017 – Present (4 months – present)

- Working on Design and Packaging of **Composite leaf springs** with manufacturing support from a local supplier.
- Working on **Semi-active Anti Roll Bar** technology.

Engineer Intern

General Electric | Global Research

John F. Welch Technology Centre, Bangalore

February 2017 – July 2017 (5 months)

- Proposed **Machine Vision** (3D Scanning) as the prospective NDT for inspection of coal boilers to check for tubes' thickness reduction. Extensively used **MATLAB**.
- Inspection time could be reduced by **1 day** saving **\$30,000** per inspection to the power plant owner.

Research Intern

Indian Institute of Technology Bombay, Mumbai

May 2016 – July 2016 (2 months)

- Developed tissue mimicking gel phantoms for experiments on laser based thermal therapy. Also developed an **experimental setup** to measure the temperature distribution inside these phantoms.
- Used **ANSYS Fluent** to simulate the effect of low power laser on a tissue with in-homogeneities using Beer-Lambert's law.

Academic Projects

Project Assistant

COEO Labs, Bangalore

March 2016 – June 2016 (3 months)

- Industrial consultancy project to design a **mechanical CPAP** for neonates with respiratory distress syndrome. Designed and delivered the product with **less than half the cost** of present solutions.
- Extensively used **COMSOL** for design and CFD analysis of the product.

Indian Institute of Technology Ropar

January 2016 – November 2016 (11 months)

- Explored ways and presented a novel and innovative technique to introduce the effect of **heat loss due to blood perfusion** in a tissue mimicking gel phantoms.
- Extensively used **MATLAB** for simulations and **Lab View** to acquire data.

Other projects in the areas of:

- HCCI Engines
- Gear and Chassis Design
- Phonetics

Community Service

Scholars for Change | June 2016

Worked as **content creator** for a program for education of underprivileged children.

T2T | June 2015

Worked on **self-proposed project** with a team of 5 on the mission to **save water** by replacing/repairing the leaking taps in the city. Saved water at a rate of **9 liters/day**.

Position of Responsibility & Achievements

- Elected as the **President, Vice President** and **Batch Representative** for **Society of Mechanical Engineers, IIT Ropar** (student club with membership of **400+ students** organizing competitions, guest talks and visits).
- **Core Team Member** at **Zeitgeist**, the cultural festival of IIT Ropar. Worked in diverse areas of **sponsorship** and **event management**.
- **Technical Proposal** ranked in **top 10** in Tata Motors' Technical Idea competition – **Imaginext amongst 1180 ideas** proposed by employees at Engineering Research Centre.
- Presented my business idea of exotic travel and buy portal at **Startup Weekend Punjab** amongst 15 pitches selected from 50 ideas.
- Ranked amongst **top 0.3%** in JEE Advanced for admission into the prestigious IITs.

Skills: CAD Design (Pro/E, SOLIDWORKS, NX), MATLAB, Analysis packages (COMSOL, ANSYS Fluent), LabVIEW, Praat

Courses: Theory of Machines, Biomedical Engineering, Manufacturing, Ordinary Differential Equations, Operations Research, Noise and Vibration, Control Theory, Phonetics and Phonology, Morphology