

PATEL VARSHA

Mechanical Materials and Aerospace Engineering at Indian Institute of Technology (IIT), Dharwad

@ 200030040@iitdh.ac.in.com

☎ (+91) 8143911289

in Patel Varsha

OBJECTIVE

A third-year undergraduate student with a good knowledge in CAD designing. A robotics enthusiast with keen interest in research and development of smart devices. Actively seeking for an internship opportunity to gain knowledge in practical aspects.

SKILLS

- Used **SOLIDWORKS** and **FUSION 360** in various projects involving GD&T, FEA analysis, 3D printing
- Used **SOLIDWORKS** to make 2D engineering drawings and BOMs
- Sheet metal design using **Solid Edge**
- Created several 3D models by **3D printing** based on FFF technique
- Made 3D printing filaments from pellets using **filament extruder**
- Analysed models of project using **ANSYS**
- Simulated fire and evacuation models using **FDS+EVAC**
- Worked on **Lathe, Milling, Turning, Shaping and Drilling machines**
- Used **C/C++** and **Python** programming languages in some projects
- Used **MATLAB** and **ARDUINO** in several projects

PROJECTS

Finding stress concentration factor using Deep learning

Design of Machine Elements Course Project

📅 August 2022 – November 2022

- To find out stress concentration factor of round shaft with shoulder fillet using Keras module and compare with results from ANSYS.

Modeling and structural analysis on airbus A300 flight wing

Manufacturing Processes Course Project

📅 January 2022 – March 2022

- Efforts were made to find the material suitable for making of the wing

3D printing of self-healing materials

Summer Research Internship

📅 July 2022 – Present

- In pursuit of publishing a conference paper this February. Made 3D printing filaments with self-healing capabilities inspired from self-healing capability of human skin.

FEM - Linear, Nonlinear Analysis & Post-Processing

Self-project

- Learnt about the Finite Element Method (FEM) and performed a linear & nonlinear static analysis study using SimScale.

LANGUAGES

English, Hindi, Telugu, Kannada, German (Beginner level)

EDUCATION

Indian Institute of Technology, Dharwad

- Undergraduate (B.Tech) in Mechanical Materials and Aerospace Engineering
- 2020 - 2024
- CPI up-to 5th semester – 8.56

POSITION OF RESPONSIBILITY

Hostel secretary of girls hostel

📅 November 2021 – April 2022

- Did my best to make everyone's stay in the hostel comfortable

Member of Institute Innovation Council

Technical team member

📅 April 2022 – October 2022

- Managed social media

Member of Institute Music Club

Active member of the club

📅 April 2021 – Present

- Participated in cultural events

Member of Institute Motosports Club

Design team member

📅 Aug 2022 – Present

RELEVANT COURSEWORK

- Control Systems
- Design of Mechatronics Systems
- Batteries for transportation
- Manufacturing Processes
- Introduction to CFD
- Design of Machine Elements

ACHIEVEMENTS

- Secured first place in robotics competition conducted by Institute Robotics Club. Designed a grass cutting bot.
- Secured second prize in design challenge in PARSEC 2.0 (Technical fest of IIT Dharwad). Designed a prosthetic hand.