

Pramod Tharu

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Summary

I'm a third-year Aeronautical Engineering student with solid experience in CAD software like Autodesk, SolidEdge, and CATIA, and hands-on knowledge of CFD using ANSYS Fluent. I'm interested about aerodynamics, thermodynamics, and tackling complex problems with math. I'm looking for an opportunity to apply my technical skills, work on innovative projects, and continue learning and growing in the aerospace industry.

Education

B.Tech (Aeronautical Engineering) Acharya Institute of Technology	2022-Present
Higher Secondary Education Himalayan Whitehouse International College	Year-2022
Secondary Education Bardiya Academy and Polytechnic Research Center	Year-2020

Projects

Hexacopter Drone Development

Built and tested a fully functional hexacopter, improving flight stability by 15% and control accuracy by 10% through calibration and real-time adjustments. Developed a troubleshooting framework with monitoring tools for efficient performance evaluation.

Wind Turbine Blade Optimization

Designed and analyzed a 10m wind turbine blade using the NACA 4415 airfoil. Optimized blade solidity by integrating aerodynamic flaps, improving efficiency and lift performance. Utilized CAD and CFD tools (Solid Edge & ANSYS Fluent) for modeling and flow simulation.

Drone Detection and Tracking using Computer Vision

Developed a real-time drone detection system using YOLOv12 and DeepSORT. Trained on 9,500+ labeled images via Roboflow, achieving 98.3% mAP@50. Integrated a Raspberry Pi 4B with a Pi Camera on a drone for live video streaming and dual-axis tracking using servo-controlled mount.

Link: <https://github.com/tharupramod/project-drone-viewers/tree/drone>

Skills

- CAD Software: Proficient in Autodesk, Solid edge, CATIA
- CFD Tools: Experience with ANSYS Fluent
- Python
- Finite Element Analysis (FEA)

Certification

- Python Programming
- Digitalisation in Aeronautical and space
- Digitalisation in Aeronautical
- Digitalisation in the Aerospace Industry
- Digitalisation in space Research

Link : <https://github.com/tharupramod/pdf-viewer>
