

LOKESH RANGALA

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Career Objective

Seeking a challenging R&D engineering position to apply expertise in mechanical design, materials science, CAD modeling, finite element analysis (FEA), and additive manufacturing for developing innovative, high-performance, and reliable engineering solutions, with a focus on optimization, sustainability, and technical excellence

Education

Degree	Specialization	Institute	Year	CGPA
B.Tech	Mechanical Engineering	LBRCE Mylavaram	2023-Present	8.2
Diploma	Mechanical Engineering	Sri Sivani College	2020-23	8.47
SSC		Ap Model School	2015-20	10.0

Work Experience

- **CAE Engineer Intern** [Simulation Lab] Apr-Jun 2025
 - Performed CFD simulations in ANSYS Fluent to analyze the thermal behavior of **Water+7percent Cu nanofluid** in Battery Thermal Management System (BTMS) for Electric Vehicles
 - Designed a **thermal network with 7 Thermo Electric Coolers (TECs)** to reduce maximum battery temperatures and maintain uniform heat distribution across 8 battery modules
- **Industrial Trainee (Automobile Service and Maintenance)** [Varun Motors Pvt.Ltd.] Jan-Jun 2023
 - Completed 6-month hands-on training in **automobile servicing, repair, and maintenance** operations
 - Learned practical skills in **engine diagnostics, electrical systems and workshop tools handling**

Projects

- **Battery Thermal Management System (BTMS) using nano fluids for EVs** [Simulation Lab] Apr-Jun 2025
 - Conducted CFD analysis of **Battery Thermal Management System (BTMS)** for EVs using **nanofluids (Water+Cu,CuO,Au,Al2O3)** in **Ansys Fluent** under varying TEC stages
 - Analyzed **cooling efficiency, thermal lag and temperature uniformity** to identify optimal nanofluids for real-time EV operating conditions
- **Jet Engine Assembly Design in CATIA V5 | Core Propulsion Components** Jan-Feb 2025
 - Designed a **Jet Engine Assembly** in **CATIA V5** focusing on the modeling and integration of key components like the **Housing, Propeller and Shaft**
 - Gained hands-on experience in **3D modeling, mechanical design** and understanding of **aerospace propulsion systems**
- **A Comparison of Open Sun Drying and Mixed Mode Type Solar Drying Using Tomatoes** Nov-Dec 2022
 - Conducted an experiment to compare **solar drying** and **open sun drying** methods by analyzing **temperature variation** and moisture reduction in **tomatoes**
 - Found that **mixed mode solar drying** gave better product quality and hygiene by minimizing **dust, pollution** and ensuring **controlled drying conditions**

Certifications

- Completed certification in **Electric & Solar Vehicle Design and Development**, conducted by AMZ Automotive
- Earned NPTEL certifications in **Introduction to IoT** and **Introduction to Operating Systems**
- Completed 6-week training in **Unigraphics (NX)** at CITD, Vijayawada

Extra-Curricular Achievements/Activities

- Recipient of the **North South Foundation Merit Scholarship** for **Academic Excellence**
- Secured a **position for project presentation** at the **Tech Fest** during Diploma in Nov 2022
- **Participated in Srujana and Yanthrora events** as part of the college technical fest

Technical Skills

- **CAD Tools:** AutoCAD, CATIA V5, Siemens NX
- **CAE Tools:** Ansys Workbench, ANSYS Fluent, Static Structural
- **Programming:** Python