MOULEESHWARAN T

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EXPERIENCE

UG Researcher, *Centre for Additive Manufacturing (CfAM)*   09/2024 – Present
Conducted in-depth research in Fused Deposition Modeling (FDM), with strong knowledge of polymers and multi-material additive manufacturing.

Ashok Leyland Technical Centre, Vellivoyalchavadi, Chennai   15/05/2025 – 30/06/2025
Worked on a project to reduce heat absorption in AC buses by selecting and testing alternative glass materials; conducted thermal and optical analysis, recommended energy-efficient glazing solutions, and prepared technical reports documenting experimental findings and performance improvements.

Bonfiglioli Transmissions Pvt. Ltd. Thirumudivakkam, Chennai   06/11/2024 – 20/12/2024
Chennai
Gained hands-on experience in the complete gear manufacturing process from raw material selection, machining, and heat treatment to final assembly; maintained production records, conducted quality inspections, analyzed defects, and learned critical quality control parameters and process optimization techniques.

Amudha Automotive Industries, Ambattur, Chennai   05/2024 – 06/2024
Chennai
Gained experience in fastener manufacturing for automotive OEMs, focusing on machining, heat treatment, and quality inspection under ISO standards.

EDUCATION

Bachelor of Mechanical Engineering | CGPA-8.5, *Chennai Institute of Technology*   2023 – 2027

SKILLS

Static Structural Simulation
ANSYS

Additive Manufacturing
Fused Deposition Modeling (FDM), Multi-Material Polymers

Topology Optimization
ANSYS

Fundamentals of Welding
SMAW | GMAW | GTAW | CMT

Programming Languages
Python | Java

MS office and Excel
Power BI | Pivot Tables

Fusion 360
CAD

Fundamentals of Supply Chain
Great Learning

PLM
Windchill

Logistics

Multi-Tasking and Time Management

Materials Selection
Ashby Charts

LANGUAGES

TAMIL
(Native Language)

English
(Fluent)

HINDI
(Conversational)

COURSES

Automation in Manufacturing, *NPTEL (IIT-GUWAHATI)*

CISCO Networking Academy-Cybersecurity Essentials

PROJECTS

Welding of Magnesium alloy using CMT Process
Investigation of tensile Properties in CMT welded AZ31 Magnesium alloy under varying parameters

Thermal Optimization of Bus Glazing for AC Efficiency
Conducted R&D on reducing heat absorption in AC bus cabins, analyzed glass materials, recommended energy-efficient solutions, and prepared technical reports.

Static Structural analysis
Calculation of Von Mises stress of spur gear by creating mesh under static structural analysis using ANSYS software

RESEARCH EXPERIENCE – ADDITIVE MANUFACTURING

Tensile Testing and Simulation of Multi-Material Polymers with Open-Elliptical Holes
Investigating the mechanical behavior of multi-material polymers with open-elliptical holes under tensile loading, performing experimental tests to evaluate stress distribution and failure mechanisms, and using numerical simulations to predict mechanical response and optimize polymer design.

WORKSHOPS

Fronius Welding Workshop | Indian Institute of Welding Workshop

Workshop in Fronius for DED wire arc additive manufacturing and cold metal transfer.

One day Workshop in Advanced Welding technology by Fronius, Chennai.