

Mohammed Aman

mohammedaman239429@gmail.com | +44 788-712-2041 | [LinkedIn](#) | [Portfolio](#) | Sheffield, UK | Eligible to Work in The UK

EDUCATION

MSc Aerospace Engineering, University of Sheffield, UK

Sep 2024 – Sep 2025

Grade: Merit (2:1) | Thesis: Kinetic Modelling Study of Alternative Aviation Fuels

Award: National Overseas Scholarship, Government of Karnataka, India (2024–25)

BEng Aerospace Engineering, BMS College of Engineering, India

Aug 2019 – Jul 2023

Grade: First Class | Thesis: Design and Analysis of Ply Drop-Off in Composite Structures

Award: Merit-cum-Means Scholarship, Ministry of Minority Affairs, India (2019–23)

TECHNICAL SKILLS

CAD & Design: SolidWorks, Siemens NX, CATIA V6, Autodesk Fusion 360, GD&T, Sheet Metal Design, DfM/DfA, Engineering Drawings

Simulation & Analysis: ANSYS Mechanical (FEA), ANSYS Fluent (CFD), Abaqus, Thermal Analysis, Structural & Stress Analysis, Composite Structures

Manufacturing: Rotorcraft Maintenance, Component Inspection, Composite Fabrication, 3D Printing (FDM)

Programming & Tools: MATLAB, Simulink, Python Automation, ANSYS Chemkin-Pro, Microsoft Office

WORK EXPERIENCE

Hindustan Aeronautics Limited (HAL)

Bengaluru, India

Industrial Trainee, Manufacturing & Overhaul

Jul 2023 – Aug 2023

- Inspected 75+ rotor blades, hydraulic actuators, gearboxes and assemblies during ALH/LCH rotorcraft overhaul
- Reviewed 100+ maintenance records, engineering drawings and manuals to assess inspection and serviceability requirements

PROJECTS

Tricopter UAV: Airframe Design & Prototype Testing | Fusion 360, ANSYS

Nov 2024 – Jun 2025

- Designed tricopter airframe in Fusion 360, reducing structural weight by 26% using carbon-reinforced parts
- Ran ANSYS modal FEA on rotor mounts, reducing measured in-flight vibration by 11%
- Led avionics integration and flight-testing across a 7-month build, validating against project requirements

Composite Wing Ply Drop-Off Structural Analysis | CATIA V6, SolidWorks, ANSYS

Aug 2022 – May 2023

- Modelled a NACA 0012 composite wing in CATIA V6/SolidWorks; ran ANSYS FEA at ply drop-off regions
- Achieved 17% mass reduction over an aluminium baseline with all structural checks passed
- Produced engineering drawings and structural analysis documentation

2026 FIA Regulations Aerodynamic Design Study | CATIA, SimScale

Jan 2026 – Jun 2026

- Designed LAMA_01 and LAMA_02 in CATIA against FIA's 30% downforce-reduction target for 2026
- Performed CFD simulations in SimScale on front wing, floor, rear wing and full-vehicle across X-mode and Z-mode
- Improved front wing from base to final design (LAMA_01 → LAMA_02); floor/rear wing benchmarked vs targets

LEADERSHIP

SOCH NGO

India

Joint Literary Secretary

2023

- Organised community literacy programmes reaching 200+ students across 15 outreach sessions

National Conference on Additive Manufacturing in Aerospace

India

Volunteer

2022

- Supported operations for 100+ delegates, coordinating logistics and participant management

CERTIFICATIONS & ADDITIONAL INFORMATION

Certifications: Siemens NX Mastery: Advanced Design & Applications (Coursera, 2025); Control Design Onramp with Simulink (MathWorks, 2026); Systems Engineering: Challenging Complexity (The Open University, 2026)

Languages: English (fluent), Hindi/Kannada (native), German (basic)

Interests: Sustainable aviation, additive manufacturing, motorsport engineering, systems design