Ankit Panigrahi

Design Engineer

https://ankitpanigrahi78.github.io/portfolio/

Work Experience – 25 months

Mobile No: +91 7735791012

ankitpanigrahi78@gmail.com

Whitefield, Bangalore - 560048

PROFILE

Experienced Mechanical Engineer with 2+ years in Combat Aircraft fuel system design and aerospace product development. Proficient in CAD modeling, theoretical analysis and simulation ensuring optimal performance of aerospace components. Skilled in engineering design, report generation, and product development, translating complex requirements into innovative solutions. Committed to advancing aerospace technology through precision and expertise.

Naukri : https://www.naukri.com/mnjuser/profile

LinkedIn: https://www.linkedin.com/in/ankit-panigrahi-4b520a209/

EDUCATION

		Pass-Out
B. Tech	GITA Autonomous College, Bhubaneswar	2023
12th	Times Scholars Gurukul, Bhubaneswar	2019
10th	Army Public School, Kanpur	2017

TECHNICAL SKILLS

Combat Aircraft Fuel System Design and Development	GD&T, Bill of Materials Management, Process Sheet, Engineering Drawings Review, Manufacturing Knowledge (Milling Turning, Grinding and EDM), Assembly Process, Sheet Metal, Modeling, Interface Critical Drawings, Product Development, Report Making, Kit of Parts (KOP), RCCA (Root Cause Corrective Action), Technical Documentation, Root Cause Analysis (RCA), Assembly Process Planning and Shopfloor Coordination

CERTIFICATIONS

- GD&T Fundamentals Training
- Aerospace Manufacturing Workshop
- Master Certification Course in CAD & CAM

Computer-Aided Design (CAD)	Catia V5, SolidWorks, AutoCAD, Creo, NX Unigraphics, Autodesk
Simulation and Analysis	MATLAB, Theoretical Stress Analysis, Hand Calculations, Digital Mock-Up (DMU)
Product Life Cycle Management (PLM)	Enovia, Teamcenter [Basic]
Programming and Automation	HTML, CSS, Java Script, Python, VS Code, Notepad++ [Basic]

WORK EXPERIENCE

CTTC (Ministry of MSME); Junior Project Engineer **Apr 2023 – Present**

Project	Deputed to **ADA** (Aeronautical Development Agency) for the Design and Development of LRUs [Line Replaceable Units].
	<u>Retractable Probe, Drogue & Relief Valves (LRUs) for LCA Tejas</u> **Responsibilities:** **1. Requirements** • Prepared LRUs Level Requirements Documents of the 4.5 generation Light Combat Aircraft Fuel System, ensuring alignment with performance and safety standards (ISO, AS9100, MIL-STD & Stanag).

Experience	• Prepared Compliance Matrix with aerospace quality standards, environmental testing and airworthiness requirements set by CEMILAC (Certifying Agency). **2. Design and Development** • Designed and developed combat aircraft fuel System LRUs in compliance with Military Standards (MIL-810H). • Assisted in indigenous LRU development, supporting Preliminary Design Reviews (PDRs) and Critical Design Reviews (CDRs). • Prepared Interface Control Drawings (ICDs) for LRUs. • Performed Theoretical Stress Analysis for LRUs using hand calculations. • Developed manufacturing methods and manufacturing process models, ensuring feasibility and optimization of aerospace production. • Developed Part BOM (PBOM) and Manufacturing BOM (MBOM) for aerospace assemblies using CATIA and Enovia. • Worked with machining operations including milling, turning, and basic CNC machining techniques to support high-precision manufacturing. **3. Modeling and Drawing** • Prepared 2D schematic drawings in AutoCAD and Assembly Procedures as per standards. • Designed and simulated 3D CAD models for functional testing, tolerance stack-up, and fitment analysis, improving product manufacturability. • Prepared Master Drawing Index (MDI), Kit of Parts (KOP), and Process Sheets for aerospace components. • Developed Digital Mock-Ups (DMU) for product design validation using CATIA. **4. Technical Documentation and Support** • Prepared technical reports, presentations, and project documentation in compliance with aerospace standards. • Developed and managed Bill of Materials (BOMs) for aerospace components and assemblies. • Supported senior engineers and reporting officers in LRU development projects.
Project Experience	**<u>Universal Test Rig for Valves (LRU Development) & Testing</u>** **Responsibilities:** • Designed and developed 2D and 3D CAD models for three test rigs (two fuel system rigs and one pneumatic valve rig), ensuring manufacturability to aerospace standards (ASME SECTION VIII Div 1). • Performed high/low temperature, high/low altitude, and endurance testing to simulate Environmental Conditions. • Actively participated in LRU testing and prepared/executed Acceptance Test Procedures (ATP) to support component qualification. • Supported on-ground testing activities including setup, troubleshooting, and data acquisition to validate system functionality.
PERSONAL SKILLS	
Others	1. Problem solving skills & Time Management. 2. Ability to work well under pressure. 3. Project Handling and Public Speaking. 4. Teamwork & Quick learner. 5. Negotiation Skills & Presentation Skills.