Ankit Panigrahi

Design Engineer

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

Work Experience – 24 months

PROFILE

Experienced Mechanical Engineering with 2+ years in Light combat aircraft fuel system design and product development. Passionate about advancing aerospace innovations through expertise in aircraft fuel system.

E-Mail : ankitpanigrahi78@gmail.com
Naukri : https://www.naukri.com/mnjuser/profile
GitHub : https://github.com/dashboard
LinkedIn: https://www.linkedin.com/in/ankit-panigrahi-4b520a209/

EDUCATION

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 Technical Documentation	GD&T, Bill of Materials, Process Sheet, Drafting, Manufacturing Knowledge (Milling Turning, Grinding and EDM), Assembly, Sheet Metal, Modeling, Interface Critical Drawings, Product Development, Project Management, Report Making

TOOLS AND SOFTWARE

Design and Development	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 [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 Experience	Deputed to **ADA** (Aeronautical Development Agency) for the Design and Development of LRUs [Line Replaceable Units].
	Retractable Probe, Drogue & Relief Valves (LRUs) for LCA Tejas **Responsibilities:** 1. Prepare the LRUs Level Requirements Documents for the 4.5 generation Light Combat Aircraft Fuel System, ensuring alignment with performance and safety standards (MIL, STANAG). 2. Designed and developed combat aircraft fuel Sub-System LRUs in compliance with MIL Standard (MIL-F-38363A & MIL-810H). 3. Was responsible for designing the Spring (Tensile & Compressive) and O-Ring with the help of hand calculations and MATLAB. 4. Was responsible to achieve requirements of technical specification including weight and space envelope. 5. Estimated the requirements for the fuel tanks pressurization using hand calculations. 6. Calculated the Theoretical Stress Analysis of the LRUs Components. 7. Prepared 2D schematic drawings in AutoCAD and Assembly Procedures of approved standards. 8. Assisted the reporting officer in indigenous LRU development, while actively

Project Experience	supporting Preliminary Design Reviews (PDRs) and Critical Design Reviews (CDRs). 9. Prepared Interface Control Drawings (ICDs) to ensure compliance with aerospace regulatory standards and airworthiness requirements set by CEMILAC (Certifying Agency). 10. Prepared the Presentations, and Technical Reports in compliance with aviation standards. 11. Created 3D CAD models to simulate real-world operational conditions. 12. Was responsible for the preparation of Process Sheet of various Aerospace Mechanical components, (MDI) Master Drawing Index, (KOP) Kit of Parts, Bill of Materials, Project Reports. 13. Developed and managed Bill of Materials (BOMs) for aerospace components and assemblies. 14. Created Digital Mock-Ups (DMU) for product design validation using CATIA. 15. Worked closely with manufacturing teams to enhance Design of Manufacturing (DFM) & Design for Assembly (DFA).
	<u>Test Rig for Valves (LRUs) Testing</u> **Responsibilities:** 1. Was responsible created detailed 2D technical drawings in AutoCAD for a Test Rig and coupling designs, ensuring precision and adherence to engineering standards. 2. Was responsible to design and modeling workflows, translating reference data into functional prototypes for manufacturing and testing. 3. Was responsible to created 3D CAD models to simulate real-world operational conditions. 4. Was responsible for the Rig Manufacturing at workshop level.
	<u>Test Rig for Probe Testing</u> **Responsibilities:** 1. Was responsible for prepared the Overhaul task of Air to Air Refueling (AAR) Probes in the coordination with Indian Airforce. 2. Prepared the Organization (O) Level and Intermediate (I) Level inspection perform on probe Assembly.
PERSONAL SKILLS	
Others	1. **Problem solving** skills & Ability to work well under pressure. 2. **Project Handling** and **Public Speaking**. 3. Teamwork & Quick learner. 4. Team Management & confident in **communicating**. 5. Good at solving logical problems.
PERSONAL PROFILE	
Name	**Ankit Panigrahi**
Date of Birth	**25th June 2002**
Nationality	**Indian**
Marital Status	**Unmarried**
Gender	**Male**
Language Known	**English, Hindi, Odia**