

Ankit Panigrahi

Design Engineer

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

Work Experience – 25 months

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.		
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Naukri : https://www.naukri.com/mnjuser/profile		
GitHub : https://github.com/dashboard		
LinkedIn: https://www.linkedin.com/in/ankit-panigrahi-4b520a209/		
EDUCATION		Pass-Out
B. Tech	GITA Autonomous College, Bhubaneswar	2023
12 th	Times Scholars Gurukul, Bhubaneswar	2019
10 th	Army Public School, Kanpur	2017
TECHNICAL SKILLS		
Combat Aircraft Fuel System Design and Development	GD&T, Bill of Materials, Process Sheet, Drafting, Manufacturing Knowledge (Milling Turning, Grinding and EDM), Assembly Process, Sheet Metal, Modeling, Interface Critical Drawings, Product Development, 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. Requirements <ul style="list-style-type: none">• Prepared LRUs Level Requirements Documents for the 4.5 generation Light Combat Aircraft Fuel System, ensuring alignment with performance and safety standards (MIL, STANAG).• Ensured compliance with aerospace regulatory standards and airworthiness requirements set by CEMILAC (Certifying Agency).• Achieved requirements of technical specification, including weight and space envelope. 2. LRUs and Development <ul style="list-style-type: none">• Designed and developed combat aircraft fuel Sub-System LRUs in compliance with MIL Standards (MIL-F-38363A & MIL-810H).• Assisted in indigenous LRU development, supporting Preliminary Design Reviews (PDRs) and Critical Design Reviews (CDRs).• Prepared Interface Control Drawings (ICDs) for LRUs.	

Project Experience	3. Modeling and Drawing <ul style="list-style-type: none">• Prepared 2D schematic drawings in AutoCAD and Assembly Procedures as per aviation standards.• Created 3D CAD models to simulate real-world operational conditions.• 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. Simulation & Analysis <ul style="list-style-type: none">• Designed and analyzed Springs (Tensile & Compressive) and O-Ring using hand calculations and MATLAB.• Estimated fuel tank pressurization requirements using hand calculations.• Performed Theoretical Stress Analysis for LRUs components. 5. Technical Documentation and Support <ul style="list-style-type: none">• Prepared technical reports, presentations, and project documentation in compliance with aviation standards.• Developed and managed Bill of Materials (BOMs) for aerospace components and assemblies. 6. Leadership and Collaboration <ul style="list-style-type: none">• Worked closely with manufacturing teams to improve Design for Manufacturing (DFM) & Design for Assembly (DFA).• Supported senior engineers and reporting officers in LRU development projects.		
	<u>Test Rig for Valves (LRUs) Testing</u> Responsibilities: <ul style="list-style-type: none">• Was responsible created detailed 2D technical drawings in AutoCAD for a Test Rig and coupling designs, ensuring precision and adherence to engineering standards.• Was responsible to design and modeling workflows, translating reference data into functional prototypes for manufacturing and testing.• Was responsible to created 3D CAD models to simulate real-world operational conditions.• Was responsible for the Rig Manufacturing at workshop level.		
	<u>Test Rig for Probe Testing</u> Responsibilities: <ul style="list-style-type: none">• Was responsible for prepared the Overhaul task of Air to Air Refueling (AAR) Probes in the coordination with Indian Airforce.• Prepared the Organization (O) Level and Intermediate (I) Level inspection perform on probe Assembly.		
PERSONAL SKILLS			
Others	<div>1. Problem solving skills & Ability to work well under pressure.</div> <div>2. Project Handling and Public Speaking.</div> <div>3. Teamwork & Quick learner.</div> <div>4. Team Management & confident in communicating.</div> <div>5. Good at solving logical problems.</div>		
PERSONAL PROFILE			
Name	Ankit Panigrahi	Marital Status	Unmarried
Date of Birth	25 th June 2002	Gender	Male
Nationality	Indian	Language Known	English, Hindi, Odia