

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 : <a href="https://www.naukri.com/mnjuser/profile">https://www.naukri.com/mnjuser/profile</a>		
LinkedIn: <a href="https://www.linkedin.com/in/ankit-panigrahi-4b520a209/">https://www.linkedin.com/in/ankit-panigrahi-4b520a209/</a>		
EDUCATION		Pass-Out
B. Tech	GITA Autonomous College, Bhubaneswar	2023
12 <sup>th</sup>	Times Scholars Gurukul, Bhubaneswar	2019
10 <sup>th</sup>	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, Bill of Materials (BOMs), Kit of Parts (KOP)	
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, 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 Experience	Deputed to <b>ADA</b> (Aeronautical Development Agency) for the Design and Development of LRUs [Line Replaceable Units].	
	<b>Retractable Probe, Drogue &amp; Relief Valves (LRUs) for LCA Tejas</b>	
	<b>Responsibilities:</b>  <b>1. Requirements</b> <ul style="list-style-type: none"><li>• Prepared LRUs Level Requirements Documents of the 4.5 generation Light Combat Aircraft Fuel System, ensuring alignment with performance and safety standards (Military &amp; Stanag).</li><li>• Prepared Compliance Matrix with aerospace regulatory standards, environmental testing and airworthiness requirements set by CEMILAC (Certifying Agency).</li></ul>	

Project Experience	<p><b>2. Design and Development</b></p> <ul style="list-style-type: none"> <li>• Designed and developed combat aircraft fuel System LRUs in compliance with Military Standards (MIL-810H).</li> <li>• Assisted in indigenous LRU development, supporting Preliminary Design Reviews (PDRs) and Critical Design Reviews (CDRs).</li> <li>• Prepared Interface Control Drawings (ICDs) for LRUs.</li> </ul> <p><b>3. Modeling and Drawing</b></p> <ul style="list-style-type: none"> <li>• Prepared 2D schematic drawings in AutoCAD and Assembly Procedures as per standards.</li> <li>• Created 3D CAD models to simulate real-world operational conditions.</li> <li>• Prepared Master Drawing Index (MDI), Kit of Parts (KOP), and Process Sheets for aerospace components.</li> <li>• Developed Digital Mock-Ups (DMU) for product design validation using CATIA.</li> </ul> <p><b>4. Simulation &amp; Analysis</b></p> <ul style="list-style-type: none"> <li>• Designed and analyzed Springs (Tensile &amp; Compressive) and O-Ring using hand calculations and MATLAB.</li> <li>• Performed Theoretical Stress Analysis for LRUs components using hand calculations.</li> </ul> <p><b>5. Technical Documentation and Support</b></p> <ul style="list-style-type: none"> <li>• Prepared technical reports, presentations, and project documentation in compliance with aerospace standards.</li> <li>• Developed and managed Bill of Materials (BOMs) for aerospace components and assemblies.</li> </ul> <p><b>6. Leadership</b></p> <ul style="list-style-type: none"> <li>• Worked closely with manufacturing teams to improve Design for Manufacturing (DFM) &amp; Design for Assembly (DFA).</li> <li>• Supported senior engineers and reporting officers in LRU development projects.</li> </ul>
	<p><b><u>Acceptance Test Rig for Valves (LRUs) Testing</u></b></p> <p><b>Responsibilities:</b></p> <ul style="list-style-type: none"> <li>• Prepared detailed 2D technical drawings in AutoCAD for a Test Rig and coupling designs, ensuring precision and adherence to engineering standards.</li> <li>• Worked closely with design team to design and modeling workflows, translating reference data into functional prototypes for manufacturing and testing.</li> <li>• Created 3D CAD models to simulate real-world operational conditions.</li> <li>• Was part of the team responsible for Rig Manufacturing at the workshop (Shopfloor) level.</li> </ul>
<b>PERSONAL SKILLS</b>	
Others	<ol style="list-style-type: none"> <li>1. Problem solving skills.</li> <li>2. Ability to work well under pressure.</li> <li>3. Project Handling and Public Speaking.</li> <li>4. Teamwork &amp; Quick learner.</li> </ol>