AARTHI A

Date of Birth: **05th March 1993**
Marital Status: **Married**
Indian Citizenship
Language: **Tamil, English** (Read, Write, Speak)

Communication Address:
Door No:2/92, Kappiyakudi
Erukur, Nagapattinam
Tamil Nadu-609108;
Mobile no: **9344576313**

Mail ID: **arthi5393@gmail.com**

4+ Years of Work Experience in Design & Structural Analysis Domain.

- Sound theoretical knowledge of Solid Mechanics, Aircraft Structures, Finite Element Method, Mechanical Vibration and Composite Materials.
- Working experience in 1D (Beam and Bar), 2D (Shell), 3D meshing (Tetra and Hexa) Linear Static/Dynamic Finite Element Analysis of metallic and composite structures using HYPERMESH, NASTRAN.
- Bearing good knowledge in composite and metallic structure design and analysis using finite element method by employing CAE tools.
- Having hands on experience in sizing, design, stress and dynamic analysis of primary structural parts of airplanes wing, fuselage using finite element and classical hand calculation methods.
- Excellent in developing solutions along with my leadership capabilities and capable of adapting to latest technology and dynamic systems for the project.

SKILL PROFILE

CAE Expertis	**: MSc NASTRAN, HYPERMESH, CFD, Fluent**
CAD Tools	**: CATIA v5, AutoCAD**
MS Office	**: Word, Excel & PowerPoint**

AREAS OF EXPERIENCE

FEA, Aircraft Structures, Composites, Structural Dynamics, UAV Design, CAD/CAE/Stress.

PROFESSIONAL EXPERIENCE

Industry Designations	**CSIR-National Aerospace Laboratories, Bangalore** Project Associate II (June 2023- Sep 2023)
Industry Designations	**BRIGHT WORLD Electronic Automation, Tuticorin.** **Engineer (**Jan 2015 – Aug 2018**)**

AREA OF EXPERTISE

- Experience in Finite Element Modelling of different aircraft structural components using HYPERMESH.
- Experience in Structural Design and Modal Analysis of Composite Aircraft Wing with different loading conditions.
- Solved Linear (Static, Dynamic) Problems using NASTRAN.
- Pre and Post processing for the required results using HYPERMESH.
- Sizing of primary structural members of mini airplane using hand calculation based strength of material approach. Material selection for airframe structure of mini airplanes.
- Qualification of structure for its strength and stiffness requirement under various flight loads.
- 3D modeling of wing, mini airplanes components and numerical master geometry generation using CATIA V5 tool. Drafting of components to support fabrication team; exposure with GD&T.

ACADEMIA

2014 Bachelor of Engineering (Aeronautical Engineering) from **Park College of Technology,** Coimbatore**,** Tamil Nadu with **72.6 %**.

2010 HSC (Tamil Nadu State Board) from **VIVEKANANDA MHSS**, Sirkali with **82.9 %**.

2008 SSLC (Tamil Nadu Matriculation Board) from **VIVEKANANDA MHSS**, Sirkali with **86.8%.**

MAJOR PROJECTS HANDLED

1. **Optimization of Aerospike nozzle using CFD method**

Description:

- New rocket designs are being adopted to increase the performance of the current satellite launch vehicles SLVs.
- But, the aerospike nozzle concept that has been under development since the 1950s is yet to be utilized on a launch platform.
- Due to its ability to adjust the environment by altering the outer jet boundary, the aerospike nozzle delivers better performance compared to present bell nozzle.

DECLARATION

I hereby confirm that the information provided above is true to the best of my knowledge and I bear responsibility for the above mentioned particulars.

Date: SIRKALI
Place: **A.AARTHI**