Arjun G

Graduate Mechanical Engineer with 3 years of demonstrated experience in **Mechanical Design, Analysis**. Professionally certified in multiple CAE tools and continually up-skilling in core competencies. Actively seeking full-time opportunities in core domains.

Engineering Experience

Research Engineer – Durability, ARAI, Pune (Jan 2023 – Present)

- Preparing FE model of **Bus, Full power train Three-Wheeler, Engine Assembly, and Automotive Sub- Assemblies.**
- Perform Modal Analysis, Stiffness Analysis, Frequency Response Analysis, Strength Analysis.
- **Interact with customers** to understand project requirements, set objectives and gather necessary inputs.
- **Define mechanical simulation plan** for different simulations as per customer requirements.
- **Prepare detailed simulation reports** as per the feedback and comments.
- **Conduct knowledge sharing sessions** to share ideas and efficient methodologies and simulation methods and techniques with team members.
- **Tools used:** HyperMesh, HyperView,Hypergraph

Graduate Apprentice Trainee- Nashik Thermal Power Station (2021-22)

Projects

- Working closely with Powertrain hardware, NVH CAE, Calibration teams and Vehicle teams to ensure the. Objectives are met for future powertrains, options and solutions are communicated with the respective teams **Modal Frequency response and DPM analysis** of powertrain and vehicle aggregates. **Mass and Stiffness. Optimization** of powertrain ancillaries and their brackets. Modal Performance chart preparation and Frequency response evaluation. Report Preparation on Hyperview and Hypergraph.

- **Performing the Frequency Response analysis of full powertrain 3, 4 - Cylinder Engine Model:**
  The project involved Mesh Modelling of Full Powertrain Involves Various Parts like Engine Block,head,Flywheel Housing,Gear Drive. Then performing Modal and Frequency Response Analysis Which Tells us where the Optimization requires by seeing the results in Hyperview and Hypergraph.
  Model Preparation: Hypermesh 2017, 2020
  Solver Profile: Nastran,Optistruct
  Post-Processing: HyperView, Hypergraph.

- **Modal Analysis of Bus:**
  The project involved generation FE model of the complete bus in Hypermesh: Meshing of sub – assemblies: Chassis and Super-Structure. Quality and other Checks to verify model sanity. Perform the Modal Analysis of the FE model to calculate the Natural Frequencies. Model Preparation: Hypermesh
  Solver Profile: Nastran
  Post-Processing: Hyperview

- **Performing Stiffness and Strength Analysis of Load body Chassis.**
  The project involved preparation of FE model of Load body to calculate Torsional, Vertical Bending and Lateral Bending Stiffness.
  Conducting Static Load analysis having different load cases to get Stress Hotspots in the model.
  Model Preparation: Hypermesh
  Solver Profile: Nastran
  Post-Processing: Hyperview and Hypergraph
- **performing the Strength Analysis of a Bus model**:

The project involved generation FE model Bus and perform Modal Analysis followed by Strength Analysis involving different Load Cases.

Model Preparation: Hypermesh

Solver Profile: Nastran

Post-Processing: Hyperview and MS Office

Software Packages

CAD Modelling: SolidWorks (Basics), CATIA (Basics)

Meshing & Analysis: HyperMesh, HyperView, Simlab, ABAQUS CAE (Basic), ANSYS Workbench (Basic)

Programming & Databases: MATLAB (Basics).

Certifications

- Post Graduate Program in Hybrid Electric Vehicle Design and Analysis, Skill Lync
- HyperMesh for FEA Plastic and Sheet Metal Applications Sep 2022
- Advanced Structural Analysis using ANSYS Workbench July 2022
- Preprocessor for Structural Analysis using ANSA Nov 2022
- Introduction to GUI based CFD using ANSYS Fluent Aug 2024
- Finite Element Analysis using SolidWorks June 2020
- MATLAB for Mechanical Engineers Mar 2020
- Introduction to Physical Modeling using Simscape April 2022
- Pursuing courses in Python

Personal skills

- Ensures efficient multi-tasking, with organized and timely delivery of assigned projects
- Self-motivated and ambitious; Strives to analyse self and bridge relevant skill gaps
- Good team player with effective communication and interpersonal skills
- Flexible and dependable demeanour, adaptable to challenges out of scope
- Quick learner with good critical thinking and problem-solving skills

Education

BE in Mechanical Engineering, Modern Education Societys College of Engineering,Pune (**Dec 2019**)

Diploma In Mechanical engineering ,Matoshri Aassarabai Polytechnic,Nashik (Aug 2016)

SSC ,Bal Jesu Sevadan High School,Nashik (July 2013)