Dipak P

Professional Summary

Willing to be a part of progressive and reputed organization where I can learn and implement skills and experience towards the growth of organization.

Education

Level	Stream	Board/University	Passing Year	Percentage / CGPA
Master of Engineering	Machine Design	Pimpri Chinchwad College of Engineering, Pune	2018	7.5
Bachelor of Engineering	Mechanical	Samarth Group of Institutions College of Engineering, Pune	2015	60.01%
Diploma	Mechanical	Maharashtra State Board of Technical Education	2011	72.93%

Work Experience

1. **Tata Motors Limited, Maharashtra, India**

   (Payroll of Tata Technologies Limited, Pune, India)

   Duration:- August 2021 to Present

   Position: - Sr. CAE Analyst

2. **LG Electronics India pvt ltd, Delhi, India**

   (Payroll of Marutee Design and Engineering PVT, Bangalore, India)

   Duration:-July 2020 to August 2021

   Position: - CAE Engineer

3. **Symmetric Technology, Maharashtra, India**

   Duration:- June 2018 to July 2020

Technical Skills

CAE Software	**Hypermesh, Ansa, Hyperview, nCode and FemFat**
Solver	**Abaqus, Nastran and Optistruct**
Cad Software	**Creo 3.0 and Catia V5**
Programming language	**Python**

Technical Proficiencies

Proficient in creating and implementing **VBA Excel macros** to automate tasks, improve efficiency, and enhance data analysis capabilities.

Analysis Done

Linear static, nonlinear static, Fatigue and Modal analysis

Roles and Responsibility

- Shell and solid meshing of automotive interior plastic parts like IP, DP, Front &Rear Console and sheet metal parts like Floor & BIW
- Defining loads and boundary conditions for analysis of component designs
- Converting design problems into FEA models
- Evaluating the problems with linear/ non-linear runs against the design target
- Preparing the report for obtained results and recommend the design changes

Project Executed

1. Frequency response analysis of radiator mounting

Tool used: Hypermesh, Nastran, Hyperview.

Description:

- Modal; analysis was carried out to know the natural frequencies of the assemblies.
- At the in addition to frequencies as per industry standard, with different G- levels, model is excited and stresses are evaluated.
- Nastran 103 and 108 are used as solvers.

2. Frame stiffness analysis of the various commercial vehicles.

Tool used: Hypermesh, Nastran and Hyperview.

Description:

- The purpose of this analysis to calculate stiffness (Torsional, vertical bending, lateral bending) of the frame.
- Wheel base rigion (WB) and most unsupported region (MUR) method was used.
- Hypermesh and hyperview were used as pre/post processor
- Nastran (Sol101) used as solver

3. Strength analysis of various components of Electric Vehicles buses (HV Battery, traction motor, traction inverter and DC-DC converter etc)

Tool used: Hypermesh, Abaqus, nastran and Hyperview.

Description:

- The Objective of this analysis to evaluate the strength analysis for the different automobile EV components (HV Battery, traction motor, traction inverter and DC-DC converter etc).
- Results are computed and reported. Recommendations were given in case of non-compliance of target.

4. Service load analysis of the various commercial vehicles.

Tool used: Hypermesh, Abaqus, Nastran, Optistruct and Hyperview.

Description:

- The Objective of this Project to evaluate the strength analysis for the different automobile subassembly like frame module, bus body – underbody, roof, side structure, front and rear structure, load body etc. for service loads.

5. Strength and durability analysis of engine mount bracket of the various Commercial Vehicle

Tool used: Hypermesh, Abaqus, Nastran, Hyperview and Femfat.

Description:

- The objective of a analysis is to evaluate static and fatigue strength of the engine mount.
- Following analysis is performed on engine mounts
    1) Modal Analysis
    2) Linear static Analysis (Gravity and Shock load)
    3) Fatigue Analysis
- Fatigue analysis carried out by using Femfat software.

6. Oil canning and denting of Bonnet and tailgate.

Tool used: Hypermesh, Abaqus, Hyperview.

Description:

- First four weak locations of door outer panel were found through modal analysis. At those locations oil canning and denting analysis was performed.
- Oil canning was carried out to measure the static stiffness to check the flimsiness of the outer panels.
- Denting was carryout to measure any permanent set due to dent load.
- Results were compared against previous loop designs and recommendations were given.

Personal Dossier

Name	: Dipak Dattatray Pawar
Date of Birth	: 03/09/1992
Passport No	: T4403634
Present Address	: Silver Grecia , Flat no-B1602, Pune, Maharashtra
Permanent Address	: Gunawadi, Baramati, Pune, Maharashtra

Declaration

I hereby accept that all the information furnished above is true to my knowledge

(Dipak D. Pawar)