AMAN K

CAREER SUMMARY

To work in a pragmatic way in an organization where I can use my FEA, analytical and design skills and enhance my abilities to meet the company goals and objectives with full integrity.

PROFESSIONAL EXPERIENCE

CAE NVH ANALYST **FEB 2024 – PRESENT**
Sphinx Worldbiz LTD. (Hero Motocorp)

- Full vehicle NVH analysis in Hypermesh/MSC Nastran. Responsible for NVH Analysis including modal Building by using hypermesh as pre-processor and MSC Nastran for solver.
- Various NVH analysis are performed with engine loads extracted from MBD
- Root cause analysis and issue solving for various NVH field issues on full vehicle CAE models as well as on sub assembly level.

* **Frame structures**

- Modal and response analysis for full vehicle and sub assemblies and comparison with relevant benchmarks.
- Size optimization of motorcycle frame structures for identification of weak zones and achieve maximum stiffness with minimum mass penalty.
- Topology optimization to reduce design material volume.
- CAE sign off after modification suggestion to design teams at Hero MotoCorp and discussions regarding manufacturing feasibility, cost implications etc.

*** Handle bar assemblies**

- Modal and Response analysis in MSC Nastran and comparison with relevant benchmarks.
- Design and development of tuned mass dampers for Bikes and Scooters for vibration reduction
- CAE sign off after modification suggestions to design teams and discussions regarding manufacturing feasibility, cost implications etc.

*** Suspension, swing arm & wheels**

CAE-NVH models with inputs for suspension stiffness, wheel stiffness etc. These sub assemblies are used in full vehicle CAE models. Tuning of suspension is done in order to achieve NVH targets.

*** Plastic parts** (Fairing structures, side panels etc)

- Gap study for possible rattling surfaces. Suggestions to design teams for the same Modal & response analysis and validation with NVH test Fixture design for vibration testing of plastic components.
- Vibration durability/fatigue of plastic parts.

CORE COMPETENCIES

MSC NASTRAN
OPTISTRUCT
ALTAIR HYPERMESH
ALTAIR SIMLAB
VEHICLE NVH
FRF,CROSS FRF
SIEMENS PLM TEAMCENTER

EDUCATION

CHANDIGARH ENGINEERING COLLEGE,MOHALI
Btech Mechanical engineering
2019–2022

SETH JAI PRAKASH POLYTECNIC,YAMUNANAGAR
DIPLOMA (MECHANICAL ENGINEERING)
2016-2019

LANGUAGE

ENGLISH ------ NATIVE
HINDI ------ FLUENT
PUNJABI ------ FLUENT

CAE ANALYST **MAY 2022 – FEB 2024**
P2P ANALYSIS AND SOLUTIONS

*** Plastic parts (Car IP Panel, Interior Body Trim parts, etc.)**

- Meshed & Identified gaps in structure of vehicle and electric components like Body Panels including IP Panel, Interior Trims and Door trims parts, geysers, air cooler components and assembled them with bolted and giving weld connections, Rigid connections (RB2/RB3), Contact surface & Bolt pre-tension with the help of Hypermesh tool.
- Creating vehicle component FE models and running analysis for static linear, random vibration & topology optimization for components and assemblies using Hypermesh, OptiStruct Software as per requirement.
- Actively involved in training and mentoring for CAE.