

SKILLS

ANSA, Ls-Dyna, Optistruct, Nastran, Pam-Crash, Hyperview, Meta, MSC Adams, Lotus Simulation, Solid works, Project Management

EDUCATION

AISSMS College of Engineering, Pune **2023**

B.E. - Mechanical Engineering | Aggregate CGPA: 8.17 /10.00

Arihant Arts, Commerce and Science Junior College, Pune **2019**

12th | Maharashtra Board | Percentage: 70.85/100

Sadhana Vidyalaya and Junior college, Hadapsar, Pune **2017**

10th | Maharashtra Board | Percentage: 88.8/100

PROFESSIONAL EXPERIENCE

RLE India Private limited

July 2023-Present Working

The scope of project is full vehicle structural development for body light weighting concept using advanced composite and adhesive insert of Henkel.

- **Full Vehicle connection and debug:** Doing independent full vehicle BIW connection, joints, Adhesive, working on includes files of sub assembly and creating interface file, debugging model and Oms run on Ls dyna.
- **Side Pole Impact:** Explicit Dynamic analysis to find perfect solution for battery protection
- **Three points bend test:** Quasi-Static and dynamic analysis and co-relating with physical test
- **Modal analysis:** Complete deck preparation, connection and post processing
- **Roof Crush Analysis:** Quasi Static analysis to meet SWR target for vehicle
- **Post-processing:** Analyzed the results involving von-mises stress, force and displacement using Hyper view, Meta as Postprocessor for full vehicle Side pole impact crash analysis and Rear impact analysis
- **Morphing** using Ansa: morphing of insert, Pillars, Foam, door panels according to its BIW
- **Topology Optimization:** Target is to find minimum mass of nylon at the in D pillar location of the vehicle

PROJECTS

- **M&M M210:** Led modal analysis using Nastran to enhance the M210 vehicle tailgate's first natural frequency from 19.70 Hz to 24.50 Hz (24.30% improvement), optimizing NVH performance. Integrated 1.10 kg of plastic inserts, replacing 1.20 kg of sheet metal, achieving a 0.10 kg weight reduction.
- **M&M Z115:** Led modal analysis using Nastran to enhance the Z115 swing gate first natural frequency from 16.00 Hz to 22.50 Hz (40.00% improvement), by net weight adding of only 0.95Kg
- **Tata Sierra:** Performed 3-point bend analysis on Side sill assembly of vehicle through which achieved 48% of weight reduction of side-sill assembly.
- **Adhesive Correlation Test:** Validated new adhesive material EP5151 via LS-DYNA, by correlating its physical Test with CAE test data. this enabled securing a €5 million business opportunity for the client.

RESONANCE RACING AISSMS College of Engineering

February 2020-March 2023

Role- Vice-Captain, Finance Head, Vehicle Dynamics Head

- Managed team of 28 members and administered project timelines and increased project delivery efficiency by 18% in comparison to last year through the use of PFMEA.
- Developed a comprehensive Bill of Materials (BOM) for a full off-road vehicle, performing detailed costing analysis to streamline finances to ₹9.00 lakh through targeted sponsorships, crowdfunding, and institutional support, ensuring efficient resource allocation and project completion within budget.
- Designed front and rear independent suspension. Reduced weight by 12% and cost by 22% in rear suspension by introducing a new design & performed weight transfer calculation for it

Academic Project

Prototyping of Electrostatic Precipitator(ESP) to control exhaust gas emissions from diesel engine

July 2022-March 2023

- Designed and tested ESP using Taguchi Method to reduce particulate matter and harmful gases, achieving 2.5 g/hr particulate collection, 20% HC, and 15% CO₂ reduction, Electrostatic Precipitator collected 2.5grams Particulate matter for one hour and reduces 20% Hydrocarbon (HC), 15% volume of Carbon Dioxide (CO₂)

HOBBIES

Reading Historical Books. Hiking