



Address: Bangalore, Kerala, India– 560087
Phone: +919562740148
Email: sagartpba@gmail.com
Birthdate: 23.05.1992
Nationality: Indian

Professional Experience

Mechanical Design Engineer in Robert Bosch India (RBEI), Bangalore

07/2017 - till date

- **Key skills:** Expert in CAD modelling using PTC Creo, Tolerance Stack up analysis, Automation of design tasks using parameterization and Creo API tool kit, FEM Strength calculations and materials selection, Modelling and development of design elements, Structural and thermal simulation using ANSYS, Knowledge in ANSYS Application Customization Toolkit.
- FEA analysis of Electronic Control Units.
- Basic structural and thermal simulation using ANSYS for window lifter drives.
- Conceptualization of single PCB solution for steering ECU products.
- Hands-on experience in PDM activities: BOM creation, ECR topics.
- Expert in PDM wind-chill design data handling.

Konstruktionsingenieur in Robert Bosch GmbH, Schwieberdingen, Germany

07/2018 - 12/2018

- Technical specialist in product design and development of molded electronics (Direct Packaging).
- Heat Sink optimization for E-scooter inverters.
- Parametric tolerance simulation of SMD chokes in automotive electronics.
- Optimization of IDC using structural simulation & parametric design.
- Mechanical Design and development of Intelligent Power Module.
- Hands-on experience in DBC design and development.
- Analytical solution and simulation correlation of PCB bending.

Technical Skills:

- Mechanical Design Tools: Creo 4 (Expert), CATIA V5 (Intermediate), SolidWorks (Intermediate).
- Mechanical Analysis Tools: ANSYS (Intermediate), ABAQUS (Beginner), MATLAB (Expert).
- Programming Language: Python (Intermediate), C/C++ (Intermediate).
- MS Office tools: Word (Expert), Excel (Expert), Power point (Expert).

Education

Internship at Institute of Mechanics (IAM) RWTH Aachen University, Germany

09/2016 - 03/2017

- Master's thesis on "Mechanical Property of Silica Aerogel Using Molecular Dynamics Simulations".
- Molecular dynamics (MD) simulations were carried out on silica aerogels using the program Large-scale Atomic/Molecular Massively Parallel Simulator (LAMMPS).
- Research paper on the same topic was published at Journal of Physical Chemistry B, with 16 citations and 907 views as of January, 2020.

- Degree Grade Point Average: 9.604/10.
- Core Courses taken:
 - Finite Element Methods.
 - Advanced Dynamics.
 - Continuum Mechanics.
 - Modeling & Analysis.
 - Experimental Methods.
 - Product Reliability & Maintenance.
 - Decision Theory & Design Optimization.
 - Product Design and Design Methods.
 - Properties & selection of Engineering Materials.
 - Engineering Mathematics & Computation.

Bachelors in Mechanical Engineering, Cochin University of Science & Technology (CUSAT), Kochi**04/2010 – 06/2014**

- Aggregate Percentage: 86.39/100.
- Core Courses taken: Machine design, Thermal engineering, Heat and mass transfer, Dynamics of machines.
- Bachelors thesis on “Analysis On Turbo-Air conditioner: An Innovative Concept”.

Achievements

- Received the prestigious German Academic Exchange Service (DAAD) scholarship under IIT Master Sandwich Program, to do Master's thesis from RWTH Aachen University, Germany.
- Second Rank in Applied Mechanics Department in IIT Delhi for Master's degree.
- University First Rank and gold medalist in Mechanical Engineering for Bachelor's degree.
- Presented an International Conference on Mechanical & Production Engineering (ICMPE) held on 23rd Feb, 2014 at Chennai, India.
- HRD Scholarship: Received Indian Government Central Sector Scholarship (CSSS-2010) for 4 years of Bachelor's degree.
- Gold Medalist in school Senior School Certificate Examination under CBSE.
- Received One Time Award from Robert Bosch India in respect to the individual performance.

Languages Known

- English (Fluent), Deutsch (Beginner) , Malayalam (Mother tongue)

Trainings

- FMEA Training, Robert Bosch India, Bengaluru.
- Geometric dimensioning and tolerance training, Robert Bosch India, Bengaluru.
- Certified Training on Pro-E/PTC Creo, ANSYS, Python.
- German language Course (Basic) completion certificate from RWTH Aachen University, Germany.
- Online Course completion certificate on German Language (Beginner).
- Online Course completion certificate ANSYS meshing techniques.