



JOB DESCRIPTION FORM

IDENTIFICATION			
Job Title:	Senior FEA Engineer (Structures)		
Unique Job Code	CPL-SE004	Date	10-12-2021
Business Area	Engineering	Work Time	Full Time (Flexi)
Contract Type	Permanent	Location	Bengaluru (Bangalore)

PURPOSE

ROLE

The Senior FEA Engineer (Structures) will be responsible for delivering soft simulations of major vehicle systems. Both for external clients and for internal Coexlion projects. Projects will be predominantly in the domain of electric motorcycles and scooters. The Senior FEA Engineer (Structures) will take end to end responsibility, from concept initiation into design validation stage.

The Senior FEA Engineer (Structures) will be an integral part of the global engineering team and will work closely with their colleagues in the UK and India to deliver engineering solutions that meet overall project requirements cost, quality and program timing. Responsibilities will include breaking project level soft simulation requirements into component and system level target specifications, and managing the progress to the targets, escalating any critical deviation when appropriate.

The successful applicant will be expected to bring domain specific knowledge of FEA, preferably in the domain of 2 wheeled vehicles: Structures. However, the Senior Engineer is expected to be flexible and be willing to work across domains and at a vehicle level.

The Senior FEA Engineer (Structures) will report to the Technical Director. Although the Senior FEA Engineer (Structures) will not have people directly reporting to them, they are expected to assist more junior colleagues, through coaching and guidance. Senior FEA Engineer (Structures) may be required to prioritise and manage the workload of more junior team members and 3rd party contract workers.

At various stages of the project a Senior FEA Engineer (Structures) may be the lead person for coordinating off-site work with engineering design houses & various testing agencies, both within India and overseas.

KEY TASKS & ACCOUNTABILITIES

- Plan deliverables in terms of budget, resource allocation and timeline.
- Manage programs and escalate appropriately when there is a risk of deviation to Cost Time or Quality.
- Coach and develop less experienced colleagues.
- Generating new concepts, with a focus on achievable innovation.
- Responsible for breaking project requirements down to component and system level specifications.
- Ensures engineering principles and calculations are rigorously applied.
- Develop and establish CAE methodologies for different components.
- Apply structure optimization techniques to achieve set weight targets.
- FEA model creation in line with international standards.
- Define robust validation plans that satisfy DFMEA requirements for their systems and component areas.
- Contribute to sustainable processes and documentation of standards and best practises.
- Document and report in a robust and professional manner.
- Closely work with testing teams for developing correlation at component and vehicle level.



REQUIREMENTS

KNOWLEDGE, SKILLS & EXPERIENCE

- Experienced FEA engineer, working for an automotive OEM or Tier 1 supplier.
- 6years plus of domain knowledge (Motorcycle or Passenger car)
- Knowledge of project management processes.
- Familiarity with international meshing standards.
- Familiarity with stiffness, optimisation, strength, fatigue & frequency response analysis requirements.
- Familiarity with main cost drivers and Value Engineering opportunities.
- Proficiency in Altair Hyperworks, MSC-Nastran, Abaqus, Optistruct, FEMFAT is expected.
- CAD proficiency in Creo is an advantage.
- Prior EV experience is an advantage.
- Sound knowledge in Engineering mechanics, Strength of materials, Design of Machine Elements & Vehicle Dynamics, bolted joint calculations is expected.
- Knowledge in any of the following areas is an advantage:
 - Plastic moulding design
 - Steel fabrications
 - Brake systems
 - Suspension systems
 - Transmission & gear design
- Experience of working at vehicle level is an advantage.
- Experience of Matlab Software is an advantage.

QUALIFICATIONS

- Bachelor/Dual Degree/Mtech in a Mechanical engineering discipline from a well-established college.
- Practical skills and hands-on experience are both highly valued in your application.
- Participation in Formula Student, Formula SAE, SAE Baja India or similar competitions is highly valued.

PERSONAL ATTRIBUTES

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The successful candidate will have a passion for engineering. We are not looking for 9am to 5pm engineers who leave their engineering enthusiasm in the desk drawer at the end of the day. If you go home at the weekend and spend your time maintaining / modifying your own car/bike; or if you spend your spare time racing or rallying; or even if you are an avid F1 fan and you read all the technical insights; then you are our kind of person. We believe that innovation comes from a cross pollination of ideas. You won't find anything new in a textbook, so we want you to be out there trying new things. If you join our team, we won't shackle you to a desk and crush these dreams, we will actively encourage and support you where we can.



VALUES

Coexlion delivers *'Excellence through collaboration.'* The core values below inform how we think, behave, and deliver this engineering excellence. We are looking for candidates who naturally align themselves to these coordinates.

- **COLLABORATION**
We are a team. Our engineers are not judged on their individual contributions, but on the positive effect that they have on those around them.
- **COEXIST**
We Coexist with Nature; we believe in a future where the pursuit of technical advance is not at the expense of the environment. We strongly believe in the coexistence of humanity; we are a multi-cultural, global company. We welcome and respect everyone equally.
- **ACCOUNTABILITY & TRUST**
We stand for honesty and integrity. We trust our employees to take responsibility for their own conduct and deliverables. We show this through flexible working patterns and absence of "clocking in." In turn we expect self-motivated, punctual, and dedicated team members.
- **ACHIEVING**
We get things done. We don't sit in meetings, passing the buck, talking over the issues. We own the problems; we take action, and we get it done.
- **EXCELLENCE**
Our solutions are not quick fixes or short-term gains. We take the long-term view, and we do it right. We take pride in doing things well. We aim to be the best.
- **INNOVATION & EFFICIENCY**
Every decision we take we ask ourselves; Can it be better? Is there waste? How can we be more efficient? This drive for improvement fuels our innovation.

DISCLAIMER

A large part of Coexlion is client driven, therefore responsibilities and accountabilities may from time to time change to meet client requirements.

This job description may not detail some duties allocated to the post holder, nor cover duties of a similar nature, commensurate with the role, which may from time to time be required by the relevant manager.