



Job Specification

Job Title:	Senior Analytical Engineer	IS-11-16
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Main Purpose of the Role

To support the CTO in developing a complete analytical model of the Iisentropic Pumped Heat Storage System and also more detailed models of individual components within this system. To analyse the test data and interpret the results to improve the theoretical models and feed information back to the design team and test teams.

Main Duties / Responsibilities

- Using analytical techniques such as computational, mathematical or physical modeling to create a theoretical models of whole or parts of the system. This will include the use of CFD, FEA and other analytical packages.
- To conduct research and devise tests to substantiate theoretical models.
- Research and implement prototype components to deliver against agreed requirements
- Analysis of test data and verification of simulations
- Produce mechanical engineering solutions to the required standards, including detailed technical reports to meet company expectations
- Help develop, training and mentor other mechanical engineers in detailed engineering analysis
- To engage with specialist consultants e.g. Design and product consultants.
- To ensure that products are developed to achieve compliance
- To liaise as necessary with all the relevant internal company departments and put in the required time to ensure the job is complete and occasionally work off site.
- Ensure adequate documentation (such as test data, specifications, plans and reports) is prepared

Skills, Experience and Personal attributes

- Specialist knowledge in advanced aerospace and automotive materials/structural stress, fatigue and durability will be of particular interest.
- A sound technical understanding of mechanical engineering and mechanical systems is essential and being able to resolve problems from first principles is a strong necessity
- Experience of providing strong technical advice and guidance on mechanical engineering design to other team members to enable their development as engineers
- Experience in the use and understanding of Solidworks, Ansys, Matlab, would be a distinct advantage
- Experience in FEA, 3D modeling.
- Able to produce technical written reports to a professional business standard
- Capable of presenting projects and deliverables to internal and external clients
- Experience of authoring, checking and technical approval of both scoping and detailed calculations

Qualifications

Degree qualified or equivalent in Mechanical Engineering / Physics or a related discipline, with considerable experience in materials, structures and dynamics