Simulation Engineer

Due to our expanding engineering team, we are now currently looking to appoint a Simulation Engineer to help support the introduction and completion of computer simulation technologies. They will be pivotal in leading the use of simulation engineering technologies in the company.

The purpose of the role is to provide technical expertise and knowledge of computer simulation technologies to test the performance, durability, safety and functionality of engineering solutions in a virtual environment. This may include heat transfer and material phase change modelling, fluid flow modelling, FEA stress, integrating control systems simulation and fatigue analysis and system integration modelling.

The ideal candidate will be a highly experienced and seasoned Simulation Engineer, looking to expand and move into a senior role, bringing with them a wealth of expertise, knowledge and skill. With the responsibility of leading and managing the use simulation technology within the company, the ideal candidate will possess the ability to act as a subject matter expert. This role is not aimed at level entry candidates.

You will have at a minimum 10 years of working within the field of thermal engineering and fluent in modelling and its associated programmes.

A bit about us

The company designs and manufactures space-saving thermal storage solutions that make homes, buildings and vehicles more energy-efficient and sustainable, while reducing their carbon emission outputs and optimising renewables.

This is an excellent opportunity for the right candidate to join a rapidly expanding, award winning and innovative company. Having recently been awarded the first ever King's Award for Enterprise, this prestigious award is testament to our excellence in innovation and the exceptional performance of our products.

Positively contributing to energy efficiency and sustainable advancement is central to our operations and recognition of how our products achieve this will be vital to the role. Researching into who we are and what we do is a must for the candidate to better understand and appreciate the direction and history of the company. If this is a vision you share and are passionate about, and you believe you have the right skill set to succeed, this could be an important future role for you.

Based on the outskirts of Edinburgh and working closely with the Engineering and R&D team, you will be pivotal in leading the use of simulation engineering technologies in the company.

In addition to the challenges of engineering, you will be motivated to make a difference to the workplace culture and environment of continuous learning and improvement.

Excellence, pride in your reputation and supporting a collaborative workplace and culture are also vital in making this role a success.

Some of the areas you will be involved with:

- Apply technical expertise and leadership the use and execution of simulation tools both existing packages (where applicable) and for creating bespoke solutions as required.
- Support Mechanical and Thermal Engineers by providing technical expertise and guidance in the field of simulation tools and their use.
- Act as the subject matter expert with the team, regarding the development and utilisation of simulation tools within Sunamp.
- Validate, configure, and deploy Heat Battery simulations for the HVAC environment.
- Perform maintenance activities on simulation tools, keeping records and managing the associated processes and budget.
- Develop and author Standard Operating Procedures for using simulations tools within Sunamp,
- Provide training to others for use of released models and tools.
- Generate and disseminate reports based on simulation results.

Who we are looking for:

The right candidate will be able to provide demonstrable evidence and talk in detail about their skills, experience, knowledge and understanding across the following criteria;

- Modelling and Simulation: Experience with 1D modelling, Numerical Methods, Analytical approach to verification and implementation of results.

- Computer: Skilled programmer with a professional approach, fluent in multiple appropriate modelling and scientific languages, Advanced MatLab & Simulink (Object Oriented Modelling), Python, CFD and FEA.

- Communication: Excellent written and oral communication required.

- Teamwork: Adaptable working in multi-disciplinary teams in the position of expert in your field.

- Hold a Masters in mechanical or Thermal Engineering or equivalent.

- With 10 years (approx) R&D thermal engineering experience.

- Of which 2 years (minimum) were in the thermal energy storage field with phase-change materials.

- Proficient in use of CAD, component assembly and test and component validation.

- Experience of working to ISO/BSI/ASTM standards.

Expected personal qualities and behaviours:

- Requires minimal direction to undertake the role and supports departmental decision making.
- Seeks continuous self-improvement and ability to self-manage.
- Maintains composure during stressful situations and whilst undertaking difficult tasks.
- Confident interacting with key stakeholders, customers and able to influence others.
- Shares knowledge and provides helpful feedback to accelerate the development of others.
- Communicates clearly, concisely, and respectfully.
- Always well prepared and proactively arrives to problems with solutions.
- Constructively challenges status quo and recommends new improved methods/solutions.
- Interacts well with other departments and is considered an excellent team player.
- Naturally curious, creative, innovative and has excellent attention to detail.
- Logical thinker able to comprehend complex systems.
- Recognises the importance of harnessing an inclusive workplace environment.
- Able to respect and work with and show a commitment to Sunamp cultural values.

As a company we take your development and progression seriously and look forward to helping develop your skillset as we grow.

Sunamp is an Equal Opportunities Employer. The company is committed to equal employment opportunities regardless of age, sexual orientation, gender, pregnancy, religion, nationality, ethnic origin, disability, medical history, skin colour, marital status, genetic information or parental status. We base all our employment decisions on merit, job requirements and business needs.