

Senior Systems Engineer in grid-scale Energy Storage Innovation: Gravitricity Ltd, Edinburgh

Gravitricity are a growing start-up developing a novel mechanical energy storage system. This is a crucial technology to enable decarbonisation of our energy systems. We have recently completed a very successful 250 kW demonstrator system and are now focused on the development of our full-scale technology. As the complexity and scope of our projects builds, we need dynamic engineers to drive forward the development of this innovative technology.

Job Brief

Gravitricity requires an experienced Systems Engineer to work dynamically across a diverse range of exciting technology development challenges. This will require an extremely dynamic and versatile person with a great ability to work across disciplines and find innovative approaches to novel problems.

This will be a challenging and rewarding role that requires spanning a range of interesting analysis, modelling, and systems engineering areas. This could suit someone with experience in industry in a similar role or coming from academia with industrial connections, but we are open to any background with the right skills. The right person will be very self-driven to work proactively across several areas of the technology, be able to learn fast and be comfortable working outside of their core expertise. An innovative, entrepreneurial attitude is crucial.

Depending on the experience of the candidate, key focus areas may include:

Full Scale System Architecture Development: Get rapidly, and deeply involved in understanding the vast range of design parameters that affect system cost and performance. Understand and further develop, in collaboration with the commercial team, the work done on the relationship between system performance and commercial value. Find creative modelling and analytical approaches which bridge technical and commercial considerations in order to understand and optimise the system value. This will require a disciplined approach to break down the problem into manageable sections without getting daunted by the range of open variables. This work will have a significant influence on the technology development decisions, at the full system level but also sub-system and component level. It will require significant collaboration with many sides of the business in order to gather or create the required inputs.

Technical Analysis: Own specific technical development challenges that require in-depth technical understanding and analysis. Especially focusing on technical queries which have significant and varied performance and cost implications (e.g. motor selection, or OPEX modelling). Initiate and develop novel concepts to solve technical problems in these areas and contribute to a patent protection process where relevant.

Requirements Management: Translating insights from the commercial and engineering team into requirements that can focus and steer our engineering development. Manage these requirements to ensure they are relevant and used. Also capture and communicate the interdependencies between these and various design decisions to enable effective decision making.

Collaboration with external specialists: Taking the internal lead role on projects run with external specialists. This will require quick learning to “learn the language” of the relevant discipline and intelligent approaches to extract the key elements that need to drive the Gravitricity engineering design and commercial proposition. This could include research projects on new applications which may have a major impact on the company direction.

Essential Requirements

- Excellent understanding of engineering science first principles, ideally with some appreciation spanning both mechanical and electrical systems
- Proven record of finding creative methods to explore complex analytical problems
- BEng or higher in Engineering discipline, or other suitable physical science background

Beneficial Skills

- Strong commercial understanding of Energy Storage markets and services
- Experience in industry relevant to Gravitricity work, this could be for example: mechanical engineering design, power systems design, renewable energy generation innovation etc
- Systems engineering experience within industry
- Understanding of power systems, how they operate, how they are changing and the role that storage plays

Benefits

- Chance to make a significant impact within a small and dynamic company developing a technology vital for the global energy transition
- Competitive salary dependent on experience
- Modern, flexible company: all staff given option to work 4-day week (pro rata)
- 5% employer pension contribution
- EMI options scheme

Application

We are a small company, actively building a diverse and passionate team, and encourage anybody with enthusiasm and know-how to apply, irrespective of your background.

In order to apply please send a CV and a cover letter, explaining why you would be motivated to work with us to recruitment@gravitricity.com