



Senior Controls and Analysis 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 crucial technology to decarbonising our energy systems. During 2020 we will design and build a 250 kW demonstrator system as well as progressing the design of our full-scale technology. As the complexity of our projects builds, we need dynamic engineers to drive forward the development of this innovative technology.

Job Brief

Gravitricity requires an experienced and versatile controls and analysis engineer to lead our work across different areas of the business. Initial work will focus in these areas:

Control Systems: Get rapidly, and deeply involved in understanding the control structures driving the demonstrator system. Interface with partners involved in this area and identify opportunities for controls innovations. Work closely with the mechanical and electrical team to understand new challenges that will arise in full scale systems and how they can be solved with control innovations.

Analysis and Simulations: Fully engage with and develop the Simulink simulations of Gravitricity systems. Be able to understand from first principles the control problems that need to be solved and lead or contribute to simulations strategies that allow solutions to be developed. Take a lead role in optimising the complex and dynamic electromechanical systems at the heart of the Gravitricity system, balancing technical requirements with appropriate economic analysis.

This will be a challenging and rewarding role that will require you to span a range of interesting analysis and control 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 also crucial.

Essential Requirements

- Minimum 4 years relevant experience, preferably CEng or equivalent
- Excellent understanding of engineering first principles, ideally spanning both mechanical and electrical systems
- High level of Matlab and Simulink proficiency with experience of applying this to mechanical and/or electrical systems
- Experience with design, testing and implementation of industrial control systems
- Proven record of finding creative methods to explore complex analytical problems
- BEng or higher in Mechanical Engineering, Electrical Engineering, or other suitable science background

Beneficial Skills

- Experience developing simulations of mechanical systems with rotating machines
- Experience of designing, managing and executing component or system testing and all associated analysis of the outputs
- Understanding of power systems, how they operate, how they are changing and the role that storage plays
- Experience of techno-economic modelling, especially as related to energy systems



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