



Control Systems Engineer (Edinburgh)

Company: Nova Innovation

Location: Edinburgh, UK

If you would like to apply, please email your CV with a **tailored covering letter** to applications@novainnovation.com explaining why you think you would be suited to this position, your reasons for applying and other pertinent information e.g. available start date, relocation/visa status.

Applications without a covering letter will not be read.

For the Subject field in your email, please use: **Job application: 22010 Control Engineer.**

Summary

Nova Innovation is recruiting for a Control Engineer with 5-10 years' experience to join our talented and energetic team working at the forefront of the tidal energy industry. It is important to note that this role will focus on control **theory**, and it is therefore **imperative** that the applicant has good, applied knowledge and experience in control theory e.g., PID, frequency and time domain response analysis, use and implementation of digital filters.

The Role

Nova Innovation is looking for a Control Engineer to complement its existing skills. The role would involve the creation and refinement of algorithms which control the rotor torque and speed, and the blade pitch of tidal turbines to maximise power take off and minimise fatigue. To help achieve this use of Tidal Bladed software and MATLAB would be employed.

Responsibilities

Primary responsibilities of this job will include:

- Control algorithm design and implementation using traditional and novel control theory techniques for both feedback and feedforward control.
- Analysis of control system behaviour (including Bode plot creation and analysis for phase and gain margin assessment), simulation, and test verification.
- Modelling of control systems.

Attributes

We would expect applicants to have the following attributes:

- Experience in design and implementation of control systems
- Experience using simulation and modelling tools such as Bladed, MATLAB, Simulink
- Experience in implementing filters, PID controllers etc on PLCs



- Experience in system performance analysis in both time and frequency domains
- Understanding of aerodynamics/hydrodynamics
- Understanding of turbine stall and pitch control
- Ability to explain and discuss control theory with other engineering departments
- Good problem solving and innovation skills
- Self-motivated and capable of meeting deadlines
- Positive personality with a 'can-do' attitude
- Flexible and able to thrive in a dynamic environment

Examples of other beneficial experience include:

- General data analysis and modelling experience
- Experience within the solar, wind or marine renewable industry
- Cross-discipline knowledge e.g., hydraulic, mechanical, industrial control systems
- A keen interest in the renewable energy sector.

Background to Nova Innovation

Nova Innovation is a world-leading tidal energy company delivering a proven technology with global potential. We design, build, and operate tidal energy turbines and have offices in Scotland, Ireland, Wales, Canada, and Belgium.

Nova has a strong track record for growth and delivery including deploying the world's first offshore tidal array in Shetland, Scotland in 2016; successfully building the world's first baseload tidal power station in partnership with Tesla in 2018; and winning our first international projects in Canada in 2020.

With a full order book, Nova is looking for a Control Engineer to help drive the continued development of Nova's tidal technology and scale-up of the business.

Conditions, remuneration and benefits

The position can either be part-time or full time depending on the candidate and/or level of experience.

Competitive salary is negotiable depending on experience. We also offer a pension scheme with an employer matching contribution up to maximum of 5% of salary.

Annual holidays are 25 days per annum plus 8 public holidays (with a pro rata adjustment for part-time roles).

[We look forward to hearing from you.](#)