

Automotive Control Software Engineer – Ballard Motive Solutions Ltd.

Ballard Motive Solutions is a leader in hydrogen and fuel cell integration – supplying complete powertrain systems that decrease complexity and development time for fuel cell electric vehicles, increase production volumes and lower cost and time-to-market. We work with some of the most progressive authorities, fleet operators and OEMs to meet their zero-emission targets.

Position: Automotive control software engineer

Reports to: Senior Control Systems Engineer

Location: Ballard Motive Solutions is currently operating a home-based work model, but the job holder will support programmes in Scotland, England and Europe as well as other international opportunities

Job Description

The core activity is control software development, from concept through to production control, of fuel cell and battery and motor systems for commercial vehicles. You will be working in Ballard Motive Solutions' Control Software team to develop control software forming part of fuel cell hybrid vehicles including trucks, buses and trains. The role comprises requirements capture, control strategy design, test results, diagnostics, and communications and system integration. You will be ensuring all software meets safety, reliability and compliance requirements, and follows industry best practices for control system code, including redundancy.

Primary responsibilities:

- Model-based system design and auto code generation using Simulink & MATLAB
- Testing of prototype systems
- Developing and implementing test plans (DVP)
- Capturing functional, safety and compliance requirements of control software
- Contributing to FMEAs
- Working with simulation, electrical and mechanical teams to support effective whole system design
- Working with quality and compliance manager to ensure designs meet code standards and regulations

Experience and competencies:

- Degree in Computer Science, Electrical Engineering or other related engineering discipline
- Automotive controls software experience
- Knowledge of programming languages MATLAB/Simulink and C
- Willingness to work cross-functionality in the Ballard Motive Solutions team
- Knowledge of classical control theory, adaptive controls, optimal controls, and state space modelling

- Experience using version control, ideally git
- Knowledge of CAN bus and higher protocols e.g. SAE J1939, CANopen
- Experience in development and undertaking of SIL, PIL and HIL tests to prove designs
- Understanding of electrical systems e.g. batteries, power electronics, electric machines etc.
- Knowledge of DFMEA and V-Model software development process
- General knowledge of functional safety and ISO 26262

What you'll receive in return:

- Competitive salary, based on experience
- Support towards CEng accreditation and your membership fees paid for IET/IMechE
- Flexible work arrangements
- An opportunity to directly impact projects – from concept through to production

About Ballard Motive Solutions:

Ballard Motive Solutions delivers solutions that significantly improve environmental performance compared to incumbent technologies, contributing to the development of cleaner, greener, more secure, more democratic energy and transport systems, enabling healthier living for everyone. We are committed to fostering a diverse work environment and are proud to be an equal opportunity employer. As we highly value diversity in our current and future team, we do not discriminate based on race, religion, colour, national origin, gender or gender expression, sexual orientation, age, marital status, disability or any other characteristic protected by law.

To apply, email: jobs@arcolaenergy.com