PROTEAN

Motor Control Research Engineer

Farnham, UK

Protean Electric is an automotive technology firm. Our mission is to drive sustainable transport through innovation, and we are looking for the best people to join us and help stay ahead of the competition.

Working with us is your opportunity to become an expert in your field and to join us in setting world-class standards in design and production quality. Diversity and inclusion are fundamental to our approach. We know that teams who share one vision whilst drawing from a range of diverse backgrounds and experiences are the most innovative.

Working here means enjoying a fast paced, dynamic and collaborative environment. Our challenges require innovative solutions and provide a unique opportunity to shine and grow with the company.

We value and measure ourselves against these “Best Self” behaviours:

- Pioneering
- Driven
- Tenacious
- Collaborative
- High Integrity
- Responsible

If you decide to apply for the role, please email your CV, cover letter and salary expectations to: ukjobs@proteanelectric.com. It is important that you **quote the full Job Title in the subject line.**

Thanks for taking an interest in joining us and please see the specific details below:

The Role

We are seeking the right individual to join our Advanced Motor Research team.

Main Duties & Responsibilities

Working in the Advanced Motor Research Team to innovate, design, test and analyse with the goal of ensuring that Protean’s products are the best on the market over the long term.

Key Responsibilities

Include, although are not limited to the following:

- Devise and evaluate control algorithms and methods for Protean's electric motors including
  - PWM strategies
  - Current and position sensing
  - Sensorless strategies
  - Power device driving
  - Interfacing with external research establishments

- The role includes developing Simulink/Matlab models of the motor control system and improvements to Protean's HiL motor control testing capability.

Relevant Skills	Relevant Knowledge & Experience
• Research and development • Analysis of experimental data • Project leadership • Accuracy and attention to detail	• Excellent relevant degree • Control algorithms for permanent magnet motors • Pulse-width modulation techniques • Vector control • Sensorless control • Sensing techniques • Inverters for electric motors • Electric motors for traction applications • Inverters or other electronics in hybrid and electric vehicles • Automotive power-train components • Relevant legislation, standards and guidelines • Matlab and Simulink modelling • Hardware-in-the-loop simulation, in particular with dSpace hardware • Control electronics, including micro-processors and FPGA's • C programming • VHDL programming