



DRIVING THE FUTURE OF ELECTRIC VEHICLES

We are the world leader of in-wheel motors for passenger cars, light commercial vehicles and future transport solutions.

Protean Electric is an automotive technology firm with over 100 talented people globally. Our mission is to drive sustainable transport through innovation, and we are the imagination behind vehicles that travel further, perform better and use fewer components.

We believe that freedom of ideas, integrity of response, desire to improve, and collaborative thinking drive innovation. Joining Protean means working with talented experts across the organisation who value your ideas, empower you to make a difference, and encourage you to challenge yourself and others.

Electromagnetic Design Engineer

Farnham, UK

The Role

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

Main Duties & Responsibilities

Working across engineering and research activities 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.

Reporting, Location & Travel

This role reports to the AMR Manager and is based in Farnham, Surrey with the occasional requirement for national and international travel to China, US and Europe.

Key Responsibilities

Responsibilities include, although are not limited to the following:

- Generate ideas for improvements to the electromagnetic design of in-wheel electric motors
- Develop, test and analyse motor design improvements
- Develop high-level concept designs to support feasibility work with prospective customers
- Detailed motor design, including electromagnetic and thermal analyses, as part of product development and research activities
- Managing collaborative projects with Universities
- Sensitivity analysis to support engineering activities

Cont/...

- Liaising with key suppliers, customers and PEL China on motor design and development

Relevant Skills & Behaviours

We value and measure ourselves against the following 'Best-Self' Behaviours:

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

Successful candidates should be able to demonstrate the following relevant skills and behaviours:

- Accuracy and attention to detail
- Methodical
- Ability to analysis and interpret experimental data
- Ability to prioritise activities
- Able to Plan and meet deadlines
- Keen on self-development
- Good team player
- Good communicator
- Excellent reporting and presentation skills

Relevant Knowledge & Experience

Candidates should assess their suitability against the following essential and/or desirable relevant knowledge and experience:

Essential:

- Proven relevant experience
- Experienced in FE 2D/3D design and analysis of PMSM traction e-motors
- Expert knowledge on electro-magnetic motor design and materials
- Good general knowledge on motor control, mechanical and inverter design
- Able to use Matlab/Simulink for Motor Efficiency and Control Analysis
- Experience of Motor design for manufacture

Desirable:

- Doctorate or excellent relevant degree
- Familiar with OPERA and Motor-CAD design tools

Employee Benefits

In return for a rewarding and fulfilling career, all Employees can look forward to receiving a competitive salary, plus a number of additional employee benefits:

- **Core hours:** we offer a flexible approach to working hours, with core hours available to all Employees, requiring them to be in the office between 10:00 and 16:00 each day, from Monday to Friday. This provides Employees with the flexibility to start work, and finish work at a time that is convenient to them providing a little more freedom to take into account the journey to work and family commitments.
- **Discretionary Bonus:** Employees are eligible to receive a discretionary bonus of up to 15% of annual salary; this is paid annually and is subject to meeting set agreed targets.



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Employee Benefits Cont/...

- **Life Assurance:** Employees are automatically enrolled into the company's Life Assurance scheme; this provides the sum of four times annual basic salary in the event of death during employment.
- **Pension Scheme:** Employees are automatically enrolled into the Company's Group Personal Pension Scheme, with the company matching contributions from a minimum of 5% up to a maximum of 7%.
- **Private Healthcare:** subject to completion of probation, Employees,, their partners and dependents, are able to join the company's private healthcare scheme with BUPA, in addition to an accompanying cash plan with BHSF.
- **Learning & Development:** Employees are encouraged to continue their career development with a variety of training courses and development opportunities available to them, including the offer of learning Mandarin.
- **Relocation:** we are able to offer a relocation package to assist Employees and their families when relocating to within a designated distance/duration from the company's offices.

Full details of the Employee Benefits are available upon request, or will be made available on provision of an offer of employment.

Should you wish to apply for this role, please e-mail your CV, covering letter and salary expectations to: ukjobs@proteanelectric.com – please be sure to **quote the full Job Title in the subject line** and read our Privacy Notice.

Thank you for your interest, we wish you every success with your application.

