

Job Description

Job title: Engineer

Team: Engineering

Reports to: Engineering Manager

Line manages: No line management responsibility

Location: Bristol & Bath Science Park

Working at IAAPS

At IAAPS we work inclusively to bring together creative and inventive minds to the greatest challenges. As a team, we believe that diversity of experience, perspectives, and backgrounds leads to a better culture, where our people feel that they belong, contributions are recognised and rewarded, learning is actively encouraged, and difference is celebrated. Our values are:



Recruiting great talent to deliver IAAPS means offering a competitive pay and reward package, and we do just that. As part of the package, we offer relocation assistance, a competitive pension and associated benefits including Group Life Assurance, private medical insurance, a Group Income Protection and an employee assistance programme.

What's involved?

IAAPS is a world-leading centre of excellence supporting the transport industry in the transition to net zero with the development and validation of clean, efficient and affordable zero carbon propulsion technologies. Our purpose-built facility located at the Bristol & Bath Science Park encompasses 11,000 sqm of state-of-the-art research and test cells with multi-fuel including green hydrogen capability and extensive HV Power, as well as vast collaboration space and offices. The exceptional quality of the work we do at IAAPS and the service we provide to all our stakeholders is part of who we are – there's no room for 'good enough'.

As an Engineer, you will work on a variety of different sized projects across IAAPS, which means you will have multiple responsibilities involving:

- > Developing effective cross-functional relationships and collaborations to build and maintain a high-performance team environment.
- > Day-to-day operation of the facilities to include specification of the test piece setup and running tests on state-of-the-art test cells.

- > Defining and developing research and testing plans.
- > Defining and configuring instrumentation to ensure accurate operation throughout the research project.
- > Generating simulation models, test cycles and conducting experimental campaigns.
- > Ensuring accurate, timely, high-quality data from rigs and simulation activity is provided to the project team.
- > Data processing and data interpretation, ensuring data accuracy, reliability and quality.
- > Writing and presenting of technical reports to customer representatives, which will include conducting background research.
- > Providing day-to-day support, advice, and guidance to members of the team working on projects.
- > Playing a key role in leading technical discussions and decisions on projects.
- > Liaising with customer representatives to discuss test requirements and results.

What do I need?

- > Engineering degree in a relevant subject, typically Mechanical/Electrical/Automotive/Design
The wide range of projects requires multiple disciplines and expertise.
- > Experience in a research and/or a development environment would be beneficial, ideally electrified powertrain systems, combustion systems and/or system components.
- > Able to demonstrate basic understanding of one or more of the following areas: Hybrid systems, Electric motors and drives, Internal Combustion Engines, Transmissions and driveline, Turbomachinery, Battery design and Management, Fuel Cells, Propulsion System Simulation (1D and/or 3D), Alternative fuels (Hydrogen, E-Fuels, Bio-Fuels).
- > Understanding and ensuring implementation of appropriate legislative and IAAPS standards, as well as industry best practice for test facility operation.
- > Demonstrated knowledge of company and customer confidentiality agreements to maintain the security of company and customer property.
- > We are looking to fill several roles so any of the following experiences are desirable:
 - Electrical systems including power electronics and e-machine control.
 - ICE Engine development, particularly H₂ combustion / alternative fuels.
 - Energy storage systems – HV battery / Fuel cell.
 - Test rig control system operation and function.
 - Control and simulation of related propulsion systems/components
- > Experience of data acquisition systems and knowledge of instrumentation for component health monitoring.
- > Advanced data processing and analysis experience using recognised software.
- > Strong analytical skills; keen to learn and understand problems and failures.
- > Ability to work within a matrix structure, building and maintaining successful working collaborations across IAAPS.

- > Good communication and relationship-building skills; ability to adapt personal style to different audiences, provide feedback, influence, and challenge effectively.
- > Ability to work collaboratively to develop solutions to technical challenges; willing to contribute to sharing ideas, engaging others in discussions and problem solving.
- > A flexible approach to work, with the ability to seek out opportunities to engage in learning, and meaningful development.
- > Ability to manage competing demands and deadlines; comfortable and able to act on initiative and deliver outside of your role to achieve results for the team.
- > Compliance to our ISO9001 Quality Management and ISO27001 Information Security Management System Policies and Procedures.