

Job Description

Job title: Principal Engineer – Digital Engineering Team: Engineering Reports to: Head of Engineering Line manages: No line management responsibility Location: Bristol & Bath Science Park

Working at IAAPS

At IAAPS, we strive to attract and select the brightest minds to be part of our team. In this role you will be working within a highly collaborative and cross-disciplinary team, and it is important to us that you can work in a way that reflects the values we believe in. Our values are:



What's involved?

IAAPS is a world-leading centre of excellence supporting the transport industry in the transition to net zero with the simulation, development and validation of clean, efficient and affordable zero carbon propulsion technologies. Our recently commissioned, purpose-built facility located at the Bristol & Bath Science Park encompasses 11,000 sqm of state-of-the-art research and development capability including green hydrogen and extensive HV power together with HiL facilities and a digital lab, 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'. We are in the process of growing our digital engineering (simulation and control) capabilities and would like to recruit an experienced Principal Engineer to both lead and accelerate this strategic business objective. This is a unique opportunity to expand our current offering by winning project work and providing the technical leadership, within a collaborative matrix structure, to deliver projects to our internal and external clients. Specialising in the simulation and control of propulsion systems, your role will involve:

- Leading the growth of IAAPS control and simulation capabilities, working closely with our Business Development team you will engage with existing and new clients to understand client needs and generate compelling proposals
- Leading the technical delivery of control, simulation and digitally-based projects and services.
- Growing the digital engineering function, set appropriate technical standards, develop and manage the toolchains and data.

- Identifty and develop opportunities for synergies between digital and physical engineering activities, to exploit as complimentary service offerings and optimise IAAPS delivery efficiency
- As project work increases, supporting the recruitment and onboarding of suitably skilled and qualified staff.
- Leading effective cross-functional relationships and collaborations to build and maintain a high-performance team environment.
- Identifying project research objectives, and the skills and tools required to succeed, in close cooperation with our collaborators and customers.
- Providing advice and support to other IAAPS technical and commercial staff and business development functions as the technical expert in your field.
- Providing technical leadership to the team, ensure projects are delivered to agreed quality, budgets, and timescales.
- > Working closely with Engineering Project Managers and Project Technical Leads to ensure seamless project delivery and reporting.
- In addition to identifying potential areas of research for the facility, supporting the definition of technology roadmaps for specialist areas, including the provision of the necessary resources to implement the strategies and technical requirements for project delivery.
- Responsibility for Health and Safety compliance within projects and within your specialist area, in conjunction with Health, Safety & Quality Manager.
- Responsibility for ensuring adherence to IAAPS Quality Policies and Processes and maintenance of high quality, timely, and accurate research output
- > Accountability for exceptional customer project experience in your focus area.
- Willing and able to represent IAAPS at client meetings, conferences, and technical presentations.

What do I need?

- Engineering degree in a relevant subject, typically Mechanical/Electrical/Automotive/Design.
- Extensive technical experience in the control and simulation of automotive, aerospace or marine propulsion systems.
- Knowledge of methods and tools to build, validate and maintain digital models from a range of different sources, including field-based data, high-order simulations and physical test data from test facilities.
- > A self starter, able to grow the digital engineering capability against agreed targets.
- > Able to demonstrate a good understanding of one or more of the following areas, with the ability to adapt and develop further skills: Control and or simulation of driveline, transmission, internal combustion engines, or fuel cells, hybrid propulsion systems, electric motors and drives, turbomachinery, aerospace or marine propulsion.
- Specific experience working with hardware in the loop engine or e-machine dynamometerbased research and development would be highly advantageous.

- > Project management experience; able to schedule tasks, maintain budget and timelines etc.
- Experience of leading a high-performing multi-disciplinary team, to operate in a matrix organisation. Setting expectations, providing feedback, motivating, and engaging the team to solve problems to challenges.
- Strong communication and relationship-building skills; ability to adapt personal style to different audiences, influence, and challenge effectively.
- Previous experience of leading the resolution of business, technical and process issues within a Project Team environment.
- Experience of working with customers to understand project and market needs and develop technical relationships.
- Ability to proactively manage competing demands and deadlines, role model and support others to adapt to change and achieve results for the team.