

Job Description.

HORIBA MIRA is a global provider of automotive engineering, research and test services, with 75 years of experience in developing some of the world's most iconic vehicles.

Working in collaboration with vehicle manufacturers and suppliers around the world, we provide comprehensive support ranging from technology development and individual product tests through to full-vehicle design, development and build programmes.

Whilst traditionally known for our vehicle test services – including over 40 major facilities and 100km of Proving Ground – HORIBA MIRA is so much more than this. Over the last ten years, we have invested heavily in the evolution of our engineering capability and in the development of MIRA Technology Park, Europe's leading mobility R&D location for developing the latest automotive technology.

The unique combination of engineering expertise, advanced testing facilities and prime location of MIRA Technology Park in the heart of the UK automotive industry, enables customers to develop and validate their technology, or vehicle, in one place.

The Electromobility Systems department in the Propulsion & Electromobility group delivers a range of advanced solutions for the development of energy efficient electrified vehicles. In particular, the full Vehicle Thermal Management system is critical for the effective development of electric and hybrid vehicles. This role will enhance the Propulsion & Electromobility capability group across both Engineering & Technology and Test Services divisions.

Title of Job:	Thermal Systems Engineer		
Department:	445 – Electromobility Systems		
Grade:	Up to band 4		
Date Required:	ASAP		
Salary Range:	Competitive		
Number Required:	1		
Location:	HORIBA MIRA, Nuneaton, UK		
Contract Type:	Permanent:	No	Contractor: Yes
Responsible To:	Manager – Electromobility Systems		
Subordinates:	None		

Main Purpose of Job

- Assume central engineering role in highly varied vehicle thermal management projects activities
- 1D modelling for the development of full Vehicle Thermal Management Systems
- Define thermal control logic
- Assess the energy consumption associated with the VTMS
- Support thermal test activities

Key Functions

- To undertake model-based design activities for vehicle thermal management systems with associated control strategies
- Develop, correlate and validate 1-D models of HVAC Systems, Battery Thermal Management Systems, Fuel Cell Systems and xEVs' Powertrain Cooling systems using GT-Suite
- Develop numerical couplings of Vehicle and Powertrain Longitudinal models with Thermal Management Models
- Support thermal test activities for the development of refrigerant systems

Essential Qualifications	Preferred Qualifications
<ul style="list-style-type: none"> Good first degree in an appropriate Subject, most probably Mechanical Engineering, Thermal Engineering, Electro-mechanical Engineering. Significant relevant professional experience will be taken into consideration 	<ul style="list-style-type: none"> Higher degree post-graduate qualification in a related engineering discipline (relevant MSc or Meng, PhD) Chartered Engineer and membership of an appropriate institution

Essential Experience	Preferred Experience
<ul style="list-style-type: none"> Typically 5 to 10 years in automotive thermal management 1-D Modelling and Simulation using GT-Suite, in particular HVAC and cooling systems Strong Thermodynamics background Good understanding of automotive Thermal Energy Management and Vehicle Energy Efficiency Solid report writing skills 	<ul style="list-style-type: none"> Thermal rig-based development tests Thermal Management Control strategy definition Vehicle and Powertrain Longitudinal Modelling Knowledge of Matlab/Simulink modelling Cabin thermal modelling ICE thermal Modelling Conducting vehicle climatic tests Fuel Cell system thermal modelling Battery thermal modelling Refrigerant system development tests

What is the candidate likely to be doing now?
<ul style="list-style-type: none"> Undertaking a similar at an OEM, Tier-One or engineering consultancy 1-D modelling of Powertrain cooling systems including traction batteries 1-D thermal modelling of passenger cabins 1-D modelling of HVAC systems Model correlation to test data Simulation data analysis Model based design and development of full Vehicle Thermal Management Systems

Other information
<p>The candidate should:</p> <ul style="list-style-type: none"> Have excellent communication skills, both written and verbal, able to convey technical content to team members with differing technical ability Excellent communication and interpersonal skills - ability to communicate appropriately at all levels and recognise the values of all team members, regardless of level Be a self-starter and able to execute designated tasks accurately and within timing and budget constraints Have well-developed analytical skills – rigorous but pragmatic An approachable and motivational character The ability to contribute positively to a team working environment A positive, can-do attitude with an ability to work well under pressure Be willing to travel in the UK and overseas for short term visit Be prepared to work flexibly Have a full UK driving license