

Requisition Number:

Job Description.

HORIBA MIRA is looking for a Senior Functional Safety Engineer to join a unique and growing team. Based at the heart of the UK automotive industry, they will form part of the growth strategy within HORIBA MIRA. This role will include, but not be limited to, delivering and developing MIRA's trusted functional safety service, including:

- Delivery of functional safety engineering services through the whole-vehicle's development lifecycle
- Research and development of new functional safety services and products
- Supporting the wider multi-disciplinary team of Cybersecurity, Electromagnetic Resilience and Functional Safety experts in developing and delivering integrated Vehicle Resilience services.

This technical role requires a highly motivated individual with experience in risk-driven engineering methods, safety analysis and creative but structured problem resolution.

We are offering the chance to work in a world-class, independent engineering consultancy, operating in multiple locations around the world, to support vehicle manufacturers and their supply chain with cutting-edge engineering and testing expertise. We offer full-system design, test and integration expertise to automotive, defence, rail and transport industries and also specialise in developing low carbon and autonomous and co-operative driving technologies.

At our headquarters in the Midlands, we have access to one of the most comprehensive vehicle proving grounds which boasts 93km of test tracks and over 35 world-class test facilities and laboratories. Our facilities, combined with the engineering expertise of our 600 strong team makes MIRA Technology Park Europe's number one location for transport sector R&D.

Title of Job:	Senior Functional Safety Engineer		
Department:	0441 Systems & Safety		
Grade:	4Y		
Date Required:	ASAP		
Salary Range:	£35k-£55k + bens depending on skills and experience		
Number Required:	1		
Location:	Nuneaton		
Contract Type:	Permanent:	Y	Contractor: N
Responsible To:	Team leader / Manager (systems and safety)		
Subordinates:	TBC depending on assigned projects		

Main Purpose of Job
<ul style="list-style-type: none"> • Executing functional safety activities in accordance with ISO 26262 and other standards for internal and/or external customers

Key Functions

- Functional safety engineering tasks (developing safety concepts, requirements and architecture)
- Coordinating and/or executing safety analyses (FMEA, FTA, hardware architectural metrics etc.)
- Developing process to support functional safety
- Delivering training on functional safety
- Functional safety planning & management (incl. verification and validation planning)
- Hazard identification, analysis and risk assessment
- Delivering functional safety consultancy/guidance
- Developing safety arguments (safety cases)
- Independent safety assessment (confirmation measures: audit and assessment)

Essential Qualifications	Preferred Qualifications
<ul style="list-style-type: none"> • Good first degree (minimum 2:1) in electrical/electronic engineering, systems engineering or a relevant related discipline 	<ul style="list-style-type: none"> • Higher degree (relevant M.Sc or Ph.D) • Corporate membership of an engineering institution including Chartered Engineer qualification

Essential Experience	Preferred Experience
<p>Electrical/electronics engineer, systems engineer or software architect with ideally a minimum 3 years in an embedded systems environment, particularly safety-related systems</p> <p>Experience in ONE or MORE of:</p> <ul style="list-style-type: none"> • Automotive-relevant safety-related systems standards such as ISO 26262 and IEC 61508 • Off-highway or earth-moving safety-related standards e.g. ISO 15998, BS EN 474 • Machinery safety-related standards e.g. ISO 13849 <p>Experience in all of:</p> <ul style="list-style-type: none"> • Identifying hazards, performing risk assessment and classification • User and systems level requirements capture, management and technical review • System level architectural design and technical review • Safety analysis techniques e.g. FMEA, FTA (qualitative and quantitative), HAZOP etc. applied at the systems level and hardware part level • Technical leadership of small project teams • Tendering process and preparation of 	<p>Functional safety engineer or safety manager on one or more automotive or defence projects</p> <p>Experience in a combination of:</p> <ul style="list-style-type: none"> • Controllability of vehicles, in particular vehicle dynamics, control system performance and human-machine interactions • Defining and populating safety cases • Embedded hardware design and technical review for safety-related systems • Embedded software design and technical review for safety-related systems including process and tools for high integrity software developments • Modern microprocessor architectures and systems to support deployment of functionality to an ASIL C/D level of integrity • Defence safety-related systems standards such as Def Stan 00-56 and DO-254 • Hybrid electric vehicles and associated technologies • Engineering process development and practical implementation; including CMMI, ISO 15504 (SPICE) • Engineering process audit; including CMMI, ISO 15504 (SPICE) • Developing and delivering training courses • Awareness of cyber-security principles and their commercial application (e.g. threat analysis, security requirements/techniques and penetration testing)

<p>project proposals</p> <p>The candidate must have a strong experience in systems engineering and requirements driven developments and be capable of advising clients on good practice.</p>	
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What is the candidate likely to be doing now?
<ul style="list-style-type: none"> Functional safety specialist or consultant for an automotive OEM, Tier 1 supplier, semiconductor manufacturer or other safety-related industry.

Other information
<p>The candidate should:</p> <ul style="list-style-type: none"> Be capable of delivering a high standard of technical writing Be capable of presenting technical information confidently to customers Be a self-starter and able to execute designated tasks accurately and within timing and budgetary constraints Have well-developed analytical skills – rigorous but pragmatic, being able to justify decisions with solid rationale Have good interpersonal skills – a consensus-builder not confrontational being able to deal with strong-willed characters Be able to make justified technical decisions based on solid rationale Be capable of technically managing a small group of engineers, tracking progress and budget spend Be willing to engage in the security clearance process for UK defence related projects Be willing to travel and work flexibly: The job may involve periods of time spent overseas. The job may also involve extended placements at customer facilities requiring travel within the UK for 1 to 4 days per week.