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**Job Description**

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| **Job title: Add ‘job Type’ field?** | **Technical Specialist - Automotive & Student Teams** |
| **Department/School:** | **Faculty of Engineering & Design:**  **Technical Services**  **Department of Mechanical Engineering** |
| **Grade:** | **6** |
| **Location:** | **University of Bath premises** |

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| **Job purpose** |
| The primary focus of the role will include technical support to the student teams in the department, including the electric racing car, motorbike, drone & rocket teams – these teams have a high profile, & are often involved in prestigious international competitions.  You will provide staff and students of the labs with skilled technical support for the design and manufacture of unique devices and the repair, modification and construction of new and existing equipment and the manufacture of new components.  A secondary aspect of this role is to work in the Automotive Labs team, providing a technical service to the engine test cells, MSc Automotive courses and to assist with our chassis dyno facility as required.  The role will involve coordinating and undertaking the building and maintaining of bespoke experimental facilities, preparing and instrumenting engines, turbochargers, electric motors and other components for use on current and future rigs.  Experience in welding (TIG/MIG) would be highly desirable, in order to support the automotive labs, student teams & the wider faculty. Experience of CAD/CAM would be advantageous.  You may also assist in the aerospace, structural testing and composites fields - full training in these areas will be provided as needed, plus ongoing support from the technical staff already in these areas.  As this is a student-facing role, the post-holder needs to be confident working with and communicating with a diverse student population. All technical staff are responsible for ensuring a safe working environment for students and colleagues. |
| **Source and nature of management provided** |
| Line management to be provided by the Technical Supervisor of the Automotive Labs and facilities.  Student teams, aerospace, structural testing and composites support will involve co-working with Senior Technician and Technical Supervisor in the other laboratories in the department.  The role will also involve working closely with other staff in the technical services team, academics, researchers and students. |

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| **Staff management responsibility** |
| The role will have no staff to line manage, but the role may require the supervision of students and staff undertaking work in our facilities. |

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| **Special conditions** |
| Heavy lifting and manual handling with lifting equipment, contact with coolants and oils, is part of the job. PPE and COSHH assessment sheets for these materials is provided.  To be flexible and to assist with related duties in other Faculty of Engineering & Design departments, if requested by the Director of Technical Services, in liaison with the Heads of Departments, Technical Managers and Technical Supervisors, due to variations in workload, staff shortages or re-organisation. |

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| **Main duties and responsibilities** | |
| To coordinate and undertake the building and maintaining of bespoke experimental facilities, including preparing and instrumenting engines, turbochargers, electric motors and other components for use on current and future rigs. Support for the student teams e.g. cars, motorbikes, drones, rockets. Support for aero, composites & structural testing. MIG/TIG welding desirable.  Manufacturing components from a variety of materials using a range of tools.  The design, manufacture, repair, development, construction, modification and commissioning of equipment, rigs and apparatus using a full range of conventional machine tools, bench fitting, fabrication and assembly skills.  Supporting research activity and student projects, both through guidance on design work and the manufacture of components. | |
| 1. **People** | The role holder is responsible for:   * Allocation of routine tasks and/or project work * Providing direction, support and guidance as necessary, in line with individuals’ skills and abilities * Monitoring progress against agreed quality and performance criteria * Facilitating effective working relationships between team members   In addition, the role holder will:   * Maintain and manage their own personal development plan; and * Proactively engage with relevant CPD opportunities and demonstrate the impact of learning * Take part in communities of practice (either formally constituted or otherwise) relevant to their area(s) of expertise |
| 1. **Service Delivery** | The role holder will:   * Provide inductions and training to staff and students in the safe use and basic operation of equipment * Prepare materials/equipment for teaching and research activities * Provide technical support for experimental & project work, including undergraduate projects. * Carry out further duties commensurate with their role, as appropriate/instructed |
| 1. **Facilities & Resources** | Within their area of specialism, the role holder is responsible for:   * Ensuring instrumentation and equipment are maintained and in good repair, with the associated paperwork audit/certification kept up to date * Management of stock, layout and clearing up of any kit/equipment/consumables * Audits of assets, materials and storage arrangements of higher risk hazards and/or parts associated with equipment/instrumentation |
| 1. **Compliance** | The role holder is responsible for:   * Maintaining up to date knowledge of health and safety practice/legislation in order to provide a safe and effective technical service. * Proactively ensure that any functionality and safety issues are appropriately addressed within their area by self and others. * Ensuring that records are maintained and updated to demonstrate compliance with departmental/University policy and health and safety regulations * Engaging with relevant specialists as necessary in order to demonstrate and encourage good health and safety practice. |
| 1. **Stakeholder Management** | The role holder will:   * Act as a contact point for service engineers/contractors/Estates, supporting the resolution of technical issues or incidents within their area of work * Communicate effectively with team members, demonstrators, students, academics and others in delivery of service |

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**Person Specification**

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| **Criteria:  Qualifications and Training** | **Essential** | **Desirable** |
| Relevant qualifications at A-level or GCSE level or equivalent or experience working in a relevant field | √ |  |
| Relevant qualifications at A-level, HNC or equivalent |  | √ |
| Served a recognised engineering apprenticeship in a toolroom, workshop, manufacturing or laboratory environment | √ |  |
| Substantial post apprenticeship experience in an automotive environment | √ |  |
| Professional registration |  | √ |

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| **Criteria:  Knowledge and Experience** | **Essential** | **Desirable** |
| Experience of internal combustion engines and/or electric vehicle build / maintenance | √ |  |
| Experience in the use of variety of machine tools for manufacture / modification of components, e.g. lathes, mills, pillar drills etc | √ |  |
| Qualification in use of welding equipment – MMA, MIG, TIG in steel, stainless & aluminium |  | √ |
| Use/understanding of CAD & CAM |  | √ |
| A track record of upholding and applying sound theoretical approaches to the application of science and/or engineering and technology in practice |  | √ |
| Demonstrable ability to examine, understand and assess relevant scientific and technology information, concepts and ideas and to suggest solutions to problems | √ |  |
| Experience of being responsible for safe working practices whilst contributing to their evaluation and improvement | √ |  |
| Promote and ensure the application of quality standards | √ |  |
| Experience of contributing to the scoping, planning and delivery of simple and more complex projects |  | √ |
| Previous experience of supervising and supporting service delivery within a team |  | √ |
| A track record of contributing to the design, development and implementation of solutions | √ |  |
| Demonstrate ability to effectively apply relevant codes of conduct and practice | √ |  |
| Show willingness to contribute to your own continuous performance improvement | √ |  |
| A demonstrable commitment to continuous personal professional development activities through continuing advancement of own knowledge, understanding and competence | √ |  |

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| **Criteria: Skills and Aptitudes** | **Essential** | **Desirable** |
| Able to communicate effectively with a broad range of audiences | √ |  |
| Good interpersonal and communication skills | √ |  |
| Able to establish and uphold productive working relationships and an ability to resolve problems | √ |  |
| Proven ability to maintain effective working relationships, collaborative working practices, and problem solving within teams | √ |  |
| Able to work autonomously or as part of a team, and to modify practice as appropriate | √ |  |
| Ability to apply relevant scientific and technical knowledge to all aspects of their work, including, but not limited to, problem solving and evaluation | √ |  |