**Job Description**

**Job Title: Research Engineer**

**Career Level: 4**

**Department or Business Sector:** Advanced Production Systems (APS), Technology

**Location**: Coventry, UK

**Reporting to (manager’s job title):** Designated Resource Manager

|  |  |
| --- | --- |
| **Heading:** | **Description** |
| 1. **Job Purpose / Impact** | The Research Engineer (ARE) role is focused on the technical delivery of projects and support to the development of project related activities across The MTC, working across various technology departments and industrial sectors.  Largely independent supply of larger project's technical deliverables, and act as Technical Lead for smaller projects where required; ensuring work meets or exceeds agreed customer requirements, within agreed budgets and timescales.  Undertake innovative Engineering research work focused primarily on technology/manufacturing readiness levels (TRL/MRL) 3+, and able to demonstrate industrial project delivery.  To contribute in the identification, technical specification and delivery of new and novel technology capability into the MTC, customers, or industrial members premises.  This role will require involvement in all aspects of the project delivery including but not restricted to: concept generation, detailed design, ensuring compliance with all relevant standards, technical support of commissioning, awareness of project budget and deliverables. |
| 1. **Communication** | Excellent interpersonal and organisational skills are required for the role; able to demonstrate a high standard of report writing and presentation skills.  A desire to support colleagues and transfer knowledge in area of expertise to others in the department, and also to wider MTC colleagues.  Able to support senior colleagues with customer and internal partner liaison in collaborative projects, able to support technical liaison with customers during project to ensure delivery;  Evidence that commercial awareness is developing;  Own career development through mentoring coaching and training courses. |
| 1. **Innovation** | Contribute and support senior colleagues in the theme business and technology strategy;  Supporting of proposal of new capability development projects that align with the Department, Technology Theme, and overall MTC strategy.  Involved and supporting with horizon scanning of technologies and new approaches to solving industrial problems across a range of industrial sectors.  Support engagement with existing customers to win repeat business. |
| 1. **Knowledge** | The following are requirements of the role:  Degree educated holding one of the following; BSc, BEng, MSc or MEng in an appropriate Engineering based subject.  Experience in a Design Engineering role within manufacturing or Research and Development, preferably within one of the fields of; Electro-Mechanical design, EC&I, Special Purpose Machines, Automation & Robotics, Manufacturing/Process, Systems-Integration, Systems Engineering, Assembly Systems or other multi-disciplinary field.  Experienced user of CAD software packages with the ability to create design concepts and fully dimensioned drawings working to BS8888 with best practice geometric tolerances and key characteristics. Working knowledge of FEA, simulations or surface modelling.  Understanding of the challenges of designing, machinery, equipment and/or products in a manufacturing setting.  Knowledge of various materials, directives, regulations and standards, mechanical principles and manufacturing processes and technologies.  An ability to ideate creative solutions to complex problems and deliver on these from concept to physical realisation, utilising novel technologies, and work with other senior engineers to deliver both for clients and within the business.  In the process of working towards achieving Chartered Engineer Status with a professional institute; |
| 1. **Person Specification** | **Due to the nature of projects with this role, you should be willing and able to apply for Developed Vetting security clearance by the UK Government, and undertake duties associated with this level of clearance.**  All aspects of the role are to be carried out as an exemplar within the business in adhering to the MTC RIGHT way:   * Acting responsibly, putting MTC’s interests ahead of personal ambition; * Providing inspirational leadership to all who come in contact with you; * Delivering in the broadest sense a great working environment; * Leading with humility, honesty and integrity in all that you do; * Promoting teamwork, supporting through difficult times and collectively celebrating our successes.   In addition:  Committed to work collaboratively and network effectively, able to recognise the contribution of others and team-work with a one MTC mind-set;  Pragmatic hands on experience, providing problem solving approach and who is willing to physically participate in completion of work when required.  Self-motivated and a self-starter, with the ability to work autonomously to meet deadlines, budgets and quality expectations, both within a team, or independently.  Experience working where subsequent adherence to associated process and policy is critical to maintain customer confidentiality.  In addition:  Behaviours – MTC holds a high standard of professional behaviour and conduct of all colleagues; the environment across The MTC is one of collaboration. Colleagues are supported by leaders across the business to be empowered to challenge all colleagues in the MTC Right Way that is respectful and constructive. |