**Job Description**

**Job Title: Senior Research Engineer**

**Career Level: 3**

**Department or Business Sector:**  Additive Manufacturing

**Location**: Coventry, UK

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

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| **Heading:** | **Description** |
| 1. **Job Purpose & Impact** | The Senior Research Engineer (SRE) role is primarily focused on the independent technical delivery of projects and leadership in the development of project related activities across The MTC, working across various technology departments and industrial sectors.  To lead project technical deliverables, taking ownership to ensure work meets or exceeds agreed customer requirements, and is delivered within agreed budgets and timescales. Where delegated, to act as Technical Governance lead for project deliverables.  Undertake innovative Engineering research work focused primarily on technology/manufacturing readiness levels (TRL/MRL) 3+, and able to demonstrate industrial project delivery.  You will support Senior Managers with a proactive approach in the identification, technical specification, and delivery of new and novel technology capability into the MTC, customers, or industrial members’ premises.  You will require involvement in all aspects of the project delivery, taking overall ownership and ensuring compliance with all relevant standards, technical support of commissioning, management of project budget and deliverables.  You will support the Additive Manufacturing (AM) leadership team as the ceramic AM capability lead. You will be required to lead the development of technology capability, growth of the MTCs industrial and academic networks, mature our AM product offerings and, broaden the project portfolio. |
| 1. **Communication** | Must be able to communicate to all levels of the business in a professional and courteous manner, to support all parts of the business to run as one MTC to deliver corporate objectives.  Able to demonstrate the use of coaching and mentoring to support colleagues and transfer knowledge in area of expertise to others, within own department and wider MTC colleagues, proactive in Support training and development of team members;  You will lead customer and internal partner liaison in collaborative projects to ensure overall project delivery and direction, able to lead technical liaison with customers during project delivery;  Demonstrable commercial awareness;  Show ownership of Health and Safety to ensure own and your colleague’s health (both physical & mental), pro-actively reporting any concerns, near-misses or accidents.  Able to demonstrate an excellent standard of verbal and written communication skills, |
| 1. **Innovation** | Generation of key project and strategic initiatives in alignment with theme's strategy, actively supporting to develop the theme business and technology strategy in a specific area of expertise;  You will take the lead and ownership in proposal of new capability development projects that align with the Department, Technology Theme, and overall MTC strategy, and able to explore different routes for project funding (internal, industrial, or CR&D funding);  Involved with horizon scanning of technologies and new approaches to solving industrial problems across a range of industrial sectors;  Able to lead engagement with existing customers to win repeat business.  Able to initiate and lead engagement with new customers, drawing on existing industrial networks to support this activity.  Able to identify and support continuous improvement in technical aspects of the MTC’s project delivery capability including: behaviours; processes; structures; and, tools |
| 1. **Knowledge** | Degree calibre engineer, technologist, scientist or mathematician.  Masters or PhD in relevant topic is desired but not required.  5 + years of relevant technical experience either in industry or academia working with ceramic manufacturing technologies **OR** ceramicmaterials development, and evidence of leading technical projects successfully in this field during this time  Knowledge of ceramic Additive manufacturing technologies. Experience working directly with these technologies would be preferred.  Experience applying experimental design methodologies.  Experience leading consortium building and bid writing for large collaborative R&D projects (eg. Innovate UK, EU Horizon, etc). Ideally this experience would extend to having won and delivered collaborative R&D project work.  Broad network of ceramic contacts and visibility of the current state of ceramics manufacturing industry (incl. AM)  Ideally working towards professional registration, Chartered professional qualification is desirable; |
| 1. **Person Specification** | 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:  Demonstrable substantial and recognised expertise in a specific area relevant to the theme. Expert knowledge of the manufacturing sector and deep understanding of manufacturing systems and technologies;  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:  Whilst not obligatory, there is a preference that you are willing and able to apply for Developed Vetting security clearance by the UK Government and undertake duties associated with this level of clearance;  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. |

**Definitions**

**1. Job purpose / Impact:**

*Provide an overview of the job, its context in the company;*

*Describe the level and scope of influence and authority that the position should have (is this within the immediate job area or more widely across a business unit or potentially the business as a whole?);*

*Describe the level of impact by reference to the daily scope of the role – does the role holder follow clearly defined procedures under close supervision or is there latitude to set objectives or even strategies?*

**2. Communication:**

*Outline the scope, extent and nature of the communication that this role is responsible for, on a regular basis;*

*What communication skills are required? (to convey information, to reach agreement, to manage communication?);*

*What is the context: internal or external?*

**3. Innovation:**

*To what extent is the role holder required to identify, develop and make improvements to ideas, techniques, procedures, services or products?*

*What is the level of complexity? (are problems generally in one area and well defined or are they multi-dimensional?)*

*Is the role holder expected to make minor changes or to enhance or replace entire processes?*

**4. Knowledge:**

*What is the nature and extent or depth of knowledge required in this job to achieve objectives and add value?*

*Knowledge may be acquired through formal education and/or work experience;*

*First specify the depth of knowledge to be applied and then identify whether the role holder would apply the knowledge as a team member, team leader or manager of teams.*

**5.** **Person Specification:**

*The type of person suitable for the role:*

*For example, does this require someone who enjoys working with lots of detailed data, or someone who enjoys working with customers or potential customers;*

*Would this role be suited to someone with high levels of resilience and an aptitude for working under pressure, to meet deadlines?*

*What sort of prior experience would be necessary or helpful?*