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**Job Description**

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| **Job title** | Research Associate |
| **Department/School** | Mechanical Engineering |
| **Job family** | Education and Research |
| **Grade** | 7 |
| **Reporting to** | Principal Investigator (PI) or Co-Investigator (CI) |
| **Responsible for** | There may be a requirement for:  day to day supervision of other staff e.g. technical staff or, co-supervision of doctoral or undergraduate students |
| **Location** | University of Bath premises |

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| **Background and context** |
| This vacancy is for the project entitled ‘Responsive Manufacturing: Maximising Value Through Life’ (<https://gow.epsrc.ukri.org/NGBOViewGrant.aspx?GrantRef=EP/V05127X/1>) and is sponsored under the [EPSRC Responsive Manufacturing call.](https://epsrc.ukri.org/files/funding/calls/2020/responsive-manufacturing-full-call-document/) ‘Responsive Manufacturing’ is one of the EPSRC Manufacturing the Future (MtF) Theme’s new research priorities and concerns **manufacturing systems and processes that are able to respond autonomously to change.**  The aim of the two year project is to create a manufacturing system support toolkit to assess in real-time, the current and predictive needs of a manufacturing system in order for it to be able to respond and adapt to change. The work will necessitate some travel within the UK to undertake case study analysis. |

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| **Job purpose** |
| To provide manufacturing systems and modelling expertise to undertake specific research work on the grant. You will be expected to work with industrial partners to map their current manufacturing systems, analyse the systems and create value models to enable the company to make informed ‘live’ decisions in light of any disruptions to the system. Manufacturing in this grant includes white goods, novel processes, and infrastructure. |

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| **Main duties and responsibilities** | |
|  | Responsible to the PI and industry engagement manager |
| **1** | Contribute to the design and execution of the ‘Maximising Value through Life’ project e.g. timetabling and meeting project milestones; undertaking case studies with collaborative partners and wider industry as appropriate. Generate, collect and analyse existing data related to the project using qualitative and/or quantitative techniques. |
| **2** | Writing up results of research and contributing to the publication of results in high-quality peer-reviewed academic literature. |
| **3** | Disseminating results of research project as appropriate to the discipline through activities such as   * overseas research visits * conference presentations * public engagement activities |
| **4** | Participate in departmental/group meetings and prepare and deliver presentations/seminars to project team, internal and external stakeholders or funders. |
| **5** | Assist with the supervision of postgraduate students and undergraduate project students and the assessment of student knowledge. |
| **6** | Continually update knowledge and understanding in field or specialism to inform research activity. |
| **7** | Identify sources of funding and provide assistance with preparing bids to funding bodies. Develop ability to secure own funding e.g. travel grants. |
| **8** | Contribute to the development of research objectives and proposals for own or joint research projects, with assistance of a mentor, if required. |
| **9** | Disseminate knowledge of research advances to inform departmental teaching. |
|  | You will from time to time be required to undertake other duties of a similar nature as reasonably required by your line manager. You are required to follow all University policies and procedures at all times and take account of University guidance. |

**logo-uob-resize[1] Person Specification**

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| **Criteria** | **Essential** | **Desirable** |
| **Qualifications** |  |  |
| A PhD degree in subject area of direct relevance for the project, or equivalent significant relevant experience and professional qualification | √ |  |
| **Experience/Knowledge** |  |  |
| Post doctoral experience |  | √ |
| Demonstrated significant depth and breadth of specialist knowledge of subject matter to contribute to research programmes and to the development of departmental research activities | √ |  |
| Experience/high awareness of using tools such as/similar to; Value Stream Mapping and manufacturing systems modelling techniques/models. | √ |  |
| Familiarity with Life Cycle Assessment and whole life cycle analysis |  | √ |
| Demonstrated awareness of latest developments in the field of research and in research design | √ |  |
| Demonstrated potential to publish in high quality, peer reviewed journals | √ |  |
| **Skills** |  |  |
| Ability to prepare research proposals, to conduct individual research work and to disseminate results |  | √ |
| Ability to organise and prioritise own workload to meet required deadlines | √ |  |
| Ability to write research reports and to effectively disseminate outcomes | √ |  |
| Excellent oral, interpersonal and written communication skills | √ |  |
| Proficiency in appropriate techniques (as appropriate to discipline) | √ |  |
| Proficiency in IT skills (as appropriate to discipline) | √ |  |
| **Attributes** |  |  |
| Commitment to working within professional and ethical codes of conduct | √ |  |
| Innovation and developing creative solutions | √ |  |
| Commitment to excellence in research | √ |  |
| Enthusiasm and self-motivation | √ |  |
| Tenacity – working to achieve own and team objectives and to overcome obstacles | √ |  |
| Ability to be an effective team worker | √ |  |
| Commitment to safe working practices | √ |  |