



## Candidate Information

<b>Position:</b>	Research Fellow
<b>School/Department:</b>	Mechanical & Manufacturing Engineering
<b>Reference:</b>	20/108073
<b>Closing Date:</b>	Monday 17 February 2020
<b>Salary:</b>	£33,797 to £40,322 per annum.
<b>Anticipated Interview Date:</b>	Monday 2 March 2020
<b>Duration:</b>	Two years or until 30 April 2022 (whichever is earlier)

### JOB PURPOSE:

This post-doctoral research fellow post is funded by EPSRC in relation to Heat Transfer in Porous Media. The candidate is expected to be an active member of the research project assisting in the implementation of research project and the planning and delivery of the research activity in the area of computational fluid dynamics

### MAJOR DUTIES:

1. Develop and plan an area of personal research and expertise.
2. Design and develop CFD models and experiments in order to obtain reliable data.
3. Interactions with both academic and industrial collaborators in the programme consortium and building internal & external contacts and networks.
4. Prepare papers for publication in journals and presentations at national and international conferences.
5. Assist the supervisor with writing grant proposals.
6. Carry out routine administrative tasks associated with the project, including organisation of project meetings and seminars, time management, financial control and risk assessment of research activities.
7. Carry out supervisions students' projects at both undergraduate and postgraduate levels.
8. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines.

### Planning and Organising:

1. Plan for specific aspects of research programmes.
2. Plan for the use of research resources, laboratories and workshops where appropriate.
3. Plan own day-to day activity within framework of the agreed research programme.
4. Plan up to a year in advance to meet deadlines for journal publications and to prepare presentations and papers for conferences.
5. Coordinate and liaise with other members of the research group over work progress.

### Resource Management Responsibilities:

1. Ensure research resources are used in an effective and efficient manner.
2. Provide guidance as required to support staff and any students who may be assisting with research.

### Internal and External Relationships:

1. Liaise on a regular basis with colleagues and students.
2. Build internal contacts and participate in internal networks for the exchange of information and to form relationships for future collaboration.
3. Join external networks to share information and ideas.
4. Contribute to the School's outreach programme by establishing links with local community groups, industries etc.

### ESSENTIAL CRITERIA:

1. Have or be about to obtain a relevant PhD.

2. At least 3 years' relevant research experience, including demonstrable.
3. Experience in the area of Turbulent Flow Modelling and Heat Transfer.
4. Experience and competent user of CFD software
5. Knowledge in studying flow in porous media systems.
6. Ability to contribute to broader management and administrative processes.
7. Ability to contribute to the research team's outreach activities.
8. Sufficient breadth and depth of specialist knowledge in the discipline and of research methods and techniques to work within established research programmes.
9. Excellent communication and presentation skills both orally and in writing with the ability to relate to others at all levels both internally and externally.
10. Ability to build contacts and participate in internal and external networks.
11. Demonstrable intellectual ability.
12. Ability to assess and organise resources.

**DESIRABLE CRITERIA:**

1. Have published more than two first-author journal papers.
2. CFD experience using OpenFoam software.
3. Basic understanding of experimental fluid mechanics.
4. Have obtained awards of poster and/or oral presentation.