

## THE POST

**College:** College of Engineering, Mathematics and Physical Sciences

**Post:** Postdoctoral Research Fellow

**Reference No:** P62634

**Grade:** F

**Reporting To:** Dr Allen He

The above full-time post is available from September 2017 for 12 months in the College of Engineering, Mathematics and Physical Sciences.

### Job Description

#### Main purpose of the job:

The post will be in a European project for developing integrated post processing systems for 3D printed metallic parts as well as investigating additive manufacturing integrated design rules to facilitate post processing. The post will include collaborating with our industry and academic partners, conducting high quality theoretical and applied research, assistance with supervision of MSc students as well as developing new grant applications in similar research fields.

#### Main duties and accountabilities:

1. To undertake research as appropriate to the field of study including:
  - Acting as principal investigator on research projects;
  - Developing research objectives, projects and proposals;
  - Conducting individual or collaborative research projects;
  - Identifying sources of funding and contributing to the process of securing funds;
  - Extending, transforming and applying knowledge acquired from scholarship to research and appropriate external activities;
  - Writing or contributing to publications or disseminating research findings using media appropriate to the discipline;
  - Making presentations at conferences or exhibiting work in other appropriate events;
  - Assessing, interpreting and evaluating outcomes of research;
  - Developing new concepts and ideas to extend intellectual understanding;
  - Resolving problems of meeting research objectives and deadlines;
  - Developing ideas for generating income and promoting research area;
  - Developing ideas for application of research outcomes;
  - Deciding on research programmes and methodologies, often in collaboration with colleagues and sometimes subject to the approval of the head of the research programme on fundamental issues.
2. To supervise postgraduate research students.
3. To act as research team leader including:
  - Mentoring colleagues with less experience and advising on their professional development;
  - Coaching and supporting colleagues in developing their research techniques;
  - Supervising the work of others, for example in research teams or projects;
  - Developing productive working relationships with other members of staff;
  - Co-ordinating the work of colleagues to ensure equitable access to resources and facilities;
  - Dealing with standard problems and help colleagues to resolve their concerns about progress in research.

4. To routinely communicate complex and conceptual ideas to those with limited knowledge as well as to peers using high level skills and a range of media and to present the results of scientific research to sponsors and at conferences.
5. To plan, co-ordinate and implement research programmes including:
  - Managing the use of research resources and ensure that effective use is made of them;
  - Managing research budgets;
  - Helping to plan and implement commercial and consultancy activities;
  - Planning and managing own consultancy assignments.

This job description summarises the main duties and accountabilities of the post and is not comprehensive: the post-holder may be required to undertake other duties of similar level and responsibility. Please visit the Human Resources website to view the Research Fellow role profiles.

### **Person Specification**

<b>Competency</b>	<b>Essential</b>	<b>Desirable</b>
Attainments/Qualifications	PhD or equivalent in a related field of study such as additive manufacturing, mechanical manufacturing etc.	Be a nationally recognised authority in the subject area.
Skills and Understanding	Sufficient specialist knowledge in the discipline and of research methods and techniques to work within established research programmes. Record of research output in high quality publications.	Evidence of research activity and published research. Skills in secondary development of CAM/CNC system
Prior Experience	Experience of managing research projects and research teams.	Experience of undergraduate /postgraduate teaching and supervision. Experience of acting as principal investigator on research projects.
Behavioural Characteristics	Excellent written and verbal communication skills. Able to communicate complex and conceptual ideas to a range of groups. Evidence of the ability to collaborate actively within the Institution and externally to complete research projects and advance thinking. Able to participate in and develop external networks. Able to balance the pressures of research, administrative demands and competing deadlines.	Able to identify sources of funding, generate income, obtain consultancy projects, or build relationships for future activities.
Additional Competencies/Experience	Experience in conducting metallic additive manufacturing research.	Expertise and experience in both additive manufacturing and mechanical engineering

### **Informal Enquiries**

Before submitting an application you may wish to discuss the post further by contacting Dr Allen He, Professor of Manufacturing Systems, telephone (01392 724540) and email [N.He@exeter.ac.uk](mailto:N.He@exeter.ac.uk) .

### **Terms & Conditions**

Our Terms and Conditions of Employment can be viewed [here](#).

### **Further Information**

Please see our [website](#) for further information on working at the University of Exeter.

