THE POST

College:	**College of Engineering, Mathematics and Physical Sciences** http://emps.exeter.ac.uk/
Post:	**Research Fellow – Additive manufacturing of composite materials**
Reference No:	**P61613**
Grade:	**F**
Reporting To:	**Prof Oana Ghita**

Job Description

Main purpose of the job:

The College of Engineering, Mathematics and Physical Sciences wishes to recruit a Postdoctoral Research Fellow to support the work of Professor Oana Ghita. This post is available immediately for a period of 3 years. The successful applicant will join TEAM-A: The tailored electromagnetic and acoustic materials accelerator, an EPSRC Prosperity Partnership programme. The aim of this partnership, which builds upon the successful relationship that exists between the University of Exeter and QinetiQ, is to develop advanced materials that can be used to control and manipulate the propagation of electromagnetic and acoustic energy, in a highly tailored, bespoke fashion, and develop innovative techniques for their cost-effective manufacture.

The role holder will be employed and mentored by the University of Exeter, whilst engaging with QinetiQ - an industry leading company of scientists and engineers.

Due to the nature of the work that QinetiQ is involved with, applicants will be expected to get security clearance. For this reason, we have limited our applications to UK nationals who have resided in the UK for at least the past 5 years. We apologise if this means you are no longer eligible to apply; however, it is a matter of national security and we are unable to make exceptions.

The post will focus on developing materials for control and redirection of radio frequency (RF). The research will include use of particulate of different morphologies; aspect ratios, densities and blends with various polymeric matrices to additive manufacture components with controlled structures from micro to macro level. These studies will involve the use of QinetiQ's extensive materials facilities, many of which are unique in the UK, and the chance to meet QinetiQ's customers and work on the various challenges that they set us.

Postdoctoral Research Fellow

Main duties and accountabilities:

1. To undertake research as appropriate to the field of study including:

- Writing up research work for publication;
- Developing research objectives and proposals for own or joint research;
- Making presentations at national and international conferences and similar events;
- Dealing with problems which may affect the achievement of research objectives and deadlines;
- Analysing and interpreting the results of own research and generating original ideas based on outcomes;
- Using new research techniques and methods;
- Using initiative and creativity to identify areas for research, developing new research methods and extending the research portfolio;
- Using creativity to analyse and interpret research data and draw conclusions on the outcomes.

2. To work in collaboration with colleagues as appropriate to the field of study including:

- Contributing to collaborative decision making within the research group;
- Contributing to the production of collaborative research reports and publications.
- Preparing papers and presenting information on research progress and outcomes to bodies supervising research, e.g. steering groups.

3. To communicate complex information, orally, in writing and electronically.

4. To prepare proposals and applications to external bodies, e.g. for funding and contractual purposes

5. To contribute to the planning of research projects.

6. To use research resources, laboratories and workshops as appropriate and to take responsibility for reducing hazards and for the health and safety of others. Where appropriate, will also be responsible for conducting risk assessments.

7. To monitor project budgets as appropriate.

8. To engage in continuous professional development and to be responsible for continually updating knowledge and understanding in field of study or specialism and for developing skills.

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

Competency	**Essential**	**Desirable**
Attainments/Qualifications	PhD (or nearing completion) or equivalent qualification/experience in a related field of study (material science and additive manufacturing)	A background knowledge in RF and microwave materials.
Skills and Understanding	Sufficient knowledge in the discipline and of research methods and techniques to work within established research programmes.	Evidence of research activity and published research.
Behavioural Characteristics	Excellent written and verbal communication skills. Able to communicate material of a specialist or highly technical nature. Able to manage research and administrative activities and to balance the competing pressures of research and administrative demands and deadlines. Able to liaise with colleagues and students. Able to build contacts and participate in internal and external networks for the exchange of information and collaboration.	

	Able to identify potential sources of funding. Actively participate as a member of a research team. Engage in continuous professional development. Understand equal opportunity issues as they may impact on areas of research content. Where appropriate to the role, willingness to undergo training in order to conduct risk assessments.	
Circumstances	Willing to work flexibly to achieve project demands.	

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.