



THE POST

College:	Engineering, Maths and Physical Sciences
Post:	Postdoctoral Research Associate – Multifunctional nanocomposite materials for additive manufacturing
Reference No:	R62096
Grade:	E
Reporting To:	Oana Ghita

The above 2 years, full-time, fixed term post is available immediately in the College of Engineering, Mathematics and Physical Sciences.

Job Description

Main purpose of the job:

To carry out research for an Additive Manufacturing Innovate UK project, investigating the use of nanocomposites for laser sintering and fused filament fabrication (FFF). The successful applicant will be responsible for developing new methods of incorporating nanomaterials into high performance matrices and optimising both the materials and processes for use in laser sintering and fused filament fabrication.

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 contribute to teaching and to be involved in the assessment of student knowledge including assisting in the supervision of student projects and in the development of student research skills.
3. 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.
4. To communicate complex information, orally, in writing and electronically.
5. To prepare proposals and applications to external bodies, e.g. for funding and contractual purposes

6. To contribute to the planning of research projects.
7. 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.
8. To monitor research budgets as appropriate.
9. 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 (OPTIONAL or nearing completion) or equivalent qualification/experience in a related field of study.	
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.
Prior Experience	Understanding of health and safety legislation material characterisation and mechanical testing techniques.	Experience of undergraduate teaching Experience of working with conventional manufacturing processes including extrusion and injection moulding Experience of working with nanomaterials
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	
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Informal Enquiries

Before submitting an application you may wish to discuss the post further by contacting Prof Oana Ghita, telephone (01392 263667) or email o.ghita@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.