THE POST

College/Service:	**College of Engineering, Mathematics and Physical Sciences http://emps.exeter.ac.uk/**
Post:	**Postdoctoral Research Fellow – Acoustic Materials**
Reference No:	**S60124**
Grade:	**F**
Reporting To:	**Professor Alastair Hibbins**

The above full time post is available immediately on a fixed term basis until 29th July 2021 in the College of Engineering, Mathematics and Physical Sciences.

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 Alastair Hibbins. This post is available as soon as possible on a fixed term basis until 29th July 2021. 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 being primarily based at QinetiQ - an industry leading company of scientists and engineers- due to the UK-unique facilities that are available at their Farnborough headquarters. This is a fantastic opportunity for an early stage researcher to gain experience in a high technology company, whilst at the same time maintaining their academic profile

The post will focus on the science and engineering of new materials for the control of shock, vibration and acoustic energy. Such materials are needed for challenges including: the reduction of engine compartment noise in vehicles; the development of packaging that can protect delicate goods in transit; enabling marine vehicles to meet new legislation regarding acoustic emissions; and improving the acoustic insulation in buildings. The scientific literature reports many new technologies – e.g. metamaterials – that can reportedly provide better performance with thinner/lighter materials: this project is aimed at both proving and applying such ideas. The work will involve direct access to QinetiQ's manufacture and characterisation facilities, some 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.	Be a nationally recognised authority in a relevant subject area.
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. QinetiQ will provide further training on this topic. A background in the science and engineering of acoustic materials. Evidence of creative problem-solving.
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.	

Due to the nature of the work that QinetiQ is involved with, applicants will need to obtain a security clearance (to be arranged by QinetiQ). 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, access to QinetiQ's facilities requires UK nationality and we are unable to make exceptions.

Informal Enquiries

Before submitting an application you may wish to discuss the post further by contacting Professor Alastair Hibbins, telephone **01392 722100** or email A.P.Hibbins@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.