
THE POST

College/Service: College of Engineering, Mathematics and Physical Sciences

Post: Postdoctoral Research Fellow

Reference No: R57440

Grade: F

Reporting To: Professor David Zhang

Job Description

Main purpose of the job:

The post will be a European digital factory project, responsible for developing a dynamically integrated supervision, control and stimulation platform for flexible and digital manufacturing system with mobile robots. The post will include collaborating with our industry and academic partners, conducting high quality theoretical and applied research in digital manufacturing and software development for knowledge transfer, assistance with supervision of MSc students as well as developing new grant applications in similar research fields.

The post is available from 1 April 2018 to 29 February 2020 with a possibility for 6 months extension and is part of a project involving the University of Exeter, University of Greenwich (UK), Autofina(UK), CESI(France), BA Systemes (France), CERI (France), University Du Havre (France), and ESIGELEC (France). It is funded through the European Regional Development Fund and forms part of the European Strategic Investment Framework for the Heart of Devon.

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

Competency	Essential	Desirable
Attainments/Qualifications	PhD or equivalent in the related field of study, e.g., general Engineering, digital or smart manufacturing.	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.
Prior Experience	Experience of managing and conducting a research project.	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	Familiar with C++, Java or other related programming languages.	Evidence of software development activity and finished applications.

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.