



THE POST

College:	<u>College of Engineering, Mathematics and Physical Sciences</u>
Post:	Senior Research Fellow
Reference No:	T56661
Grade:	G
HERA:	SRFEL
Reporting To:	Prof C. Edwards and Prof M. Belmont

The above full time post is available immediately for 1 year (with an anticipated extension of 6 months) in the College of Engineering, Mathematics and Physical Sciences.

Job Description

Main purpose of the job:

The goal is to develop control algorithms to help extend the range of sea-states in which existing wave limited maritime operations can be safely carried out. Important examples of these operations are the launch and recovery from a mother-ship of small craft, manned and unmanned air vehicles and submersibles. The proposed work is closely coupled to two already funded EPSRC projects under the Launch and Recovery Co-Creation Initiative. The main role is to deliver new fundamental control research, providing the basis for the creation of a real-time decision support system for Launch and Recovery at sea.

Main duties and accountabilities:

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

- 1) Acting as principal investigator on research projects;
- 2) Help define research objectives and questions.
- 3) Help develop proposals for research projects which will make a significant impact by leading to an increase in knowledge and understanding and the discovery or development of new explanations, insights, concepts or processes.
- 4) Generate new research approaches and identify, adapt, develop and use research methodologies and techniques appropriate to the type of research.
- 5) Review and synthesise the outcomes of research studies.
- 6) Interpret findings obtained from research projects and develop new insights, expanding, refining and testing hypotheses and ideas.
- 7) Contribute generally to the development of thought and practice in the field.

To act as research team leader including:

- 1) Provide academic leadership to those working within research areas - for example, by co-ordinating the work of others to ensure that research projects are delivered effectively and to time, or organising the work of a team by agreeing objectives and work plans.
- 2) Act as line manager (eg of research teams).
- 3) Act as a personal mentor to peers and colleagues.

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.

To plan, co-ordinate and implement research programmes including:

- Managing the use of research resources and ensure that effective use is made of them;
- Helping to plan and implement commercial and consultancy activities;

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 qualification / experience in a related field of study.	Be an internationally recognised authority in the subject area.
Skills and Understanding	<p>Possess relevant specialist knowledge in the area of modelling and control to develop research programmes and methodologies.</p> <p>Knowledge of nonlinear observer techniques and their use for disturbance estimation.</p> <p>Have a good record of research output in nationally recognised publications.</p> <p>Have strong skills in Matlab and Simulink.</p>	<p>Experience of modelling and control of marine applications</p> <p>Be versed in a wide range of mathematical modelling methods.</p>
Prior Experience	<p>Previous post-doctoral research experience.</p> <p>Previous experience of managing research projects and research teams.</p>	Experience of acting as principal investigator on research projects.
Behavioural Characteristics	<p>Excellent written and verbal communication skills.</p> <p>Able to communicate complex and conceptual ideas to a range of groups.</p> <p>Evidence of the ability to collaborate actively within the Institution and externally to complete research projects and advance thinking.</p> <p>Able to participate in and develop external networks.</p> <p>Able to balance the pressures of research, administrative demands and competing deadlines.</p>	Able to identify sources of funding, generate income, obtain consultancy projects, or build relationships for future activities.

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.