

THE POST

College/Service:	College of Engineering, Mathematics & Physical Sciences
Post:	Marie-Skłodowska Curie ITN: Early Stage Researcher
Reference No:	P60260
Grade:	E
Reporting To:	Prof Christopher Edwards

Job Description

The Early Stage Researcher will work on the control of flexible structures and fluid-structure interactions, using and also contributing to the latest advances in control theory and energy-based modelling as part of the ConFlex consortium.

Main purpose of the job:

The main purpose of the job is to conduct research in the area of prediction and control for the launch and recovery of small craft in high seas from large mother ships. This will include:

- Identifying and controlling instabilities in the motion of the small craft during the recovery phase of the small vessel (to avoid sudden large movements that could endanger the craft or crew).
- Designing controller using the predicted motion of the two interacting vessels exploiting predictions of the wave system arriving at the vessel (typically 30 seconds ahead in time).

Main duties and accountabilities:

1. To support research activity under the direction of the principal investigator as appropriate to the research project. Responsibilities may include:
 - Undertaking a broad range of basic research activity according to the nature of the research project.
 - Keeping accurate written and computerised records and ensuring data is stored securely and managed in accordance with the Data Protection Act.
 - Conducting literature and database searches as required.
 - Writing up the results of own research.
 - Contributing to the production of research reports and publications.
 - Presenting information on research progress and outcomes to bodies supervising research, e.g. steering groups, sponsors or members of other research groups.
 - Assisting in the preparation of papers or reports for steering groups and other bodies.
 - Providing administrative support to the principal investigator and other project researchers as required.
 - Making use of standard research techniques and methods.
 - Analysing and interpreting the results of own research and generating original ideas based on outcomes.
 - Contributing to the planning of future research projects.
2. To liaise with members of the research team and other colleagues as appropriate to the research project.
3. To establish internal and external contacts to develop knowledge and understanding and form networks for future collaboration.
4. To plan own day-to-day research activity within the framework of the agreed programme of research and co-ordinate own work with that of others in the group to avoid conflict or duplication of effort.

5. To use research resources, laboratories and workshops as appropriate and to adhere to safety procedures as appropriate.
6. To engage in continuous professional development and to be responsible for continually updating own knowledge and understanding in field of study or specialism and for developing own 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.

Person Specification

Competency	Essential	Desirable
Attainments/Qualifications	Educated to first degree level in a related field of study or equivalent experience. Candidates cannot already possess a doctoral degree.	
Skills and Understanding	Some knowledge in the area of modelling and control. Previous exposure to a range of modelling methods.	Exposure to modelling methods including Lagrangian mechanics.
Prior Experience	Knowledge of Matlab/Simulink (or an equivalent).	Experience of modelling of marine applications.
Behavioural Characteristics	Ability to organise and prioritise own research work within the project framework. Good written and verbal communication skills. Computer literate. Good analytical skills. 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. 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.	
Circumstances	No more than 4 years of research experience since graduation from a bachelor's level degree. Candidates of all nationalities may apply, but they must not have lived in the UK for more than 12	

	months in the 3 years immediately prior to their appointment.	
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Additional Information relating to the post

Eligibility

Applicants will possess an undergraduate degree (2:1 or above) or equivalent in a relevant scientific field and excellent communication skills. They must be eligible to be appointed as an Early Stage Researcher in the UK under the EC Horizon 2020 Marie-Sklodowska Curie Action, Innovative Training Networks (ITN) Scheme. This is currently defined as;

‘shall at the time of recruitment by the host organisation, be in the first four years (full-time equivalent research experience) of their research careers and have not been awarded a doctoral degree.’

‘**Full-time equivalent research experience** is measured from the date when a researcher obtained the degree which would formally entitle him or her to embark on a doctorate, either in the country in which the degree was obtained or in the country in which the researcher is recruited or seconded, irrespective of whether or not a doctorate is or was ever envisaged.’

Under the rules of the scheme European and International applications are welcomed, subject to the UKVI regulations on the Right to Work in the UK. At the time of recruitment by the host organisation, researchers shall not have resided or carried out their main activity (work, studies, etc.) in the country of their host organisation for more than 12 months in the 3 years immediately prior to the reference date. Compulsory national service and/or short stays such as holidays are not taken into account.

Salary

Salary will be on a spot salary in the range GBP 26,495 up to GBP 29,799 on Grade E, subject to knowledge, skills and experience. In addition, allowances are payable in line with the Marie Curie Horizon 2020 requirements for Early Stage Researchers as follows: a mobility allowance of GBP 5,189 per annum.

The University pay scale will be subject to a cost of living review each year, but you will not receive annual increments.

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.