



PhD Studentship

Ocean Modelling for Marine Renewable Energy

School of Earth, Ocean and Environmental Sciences

The Marine Institute and the School of Earth Ocean and Environmental Science at the University of Plymouth have secured joint funding from Great Western Research and industrial partners for a study on the application of regional ocean modelling for planning and environmental impact assessment purposes for tidal stream energy generation. This study presents an exciting opportunity to apply leading edge research in coastal oceanography to the development of marine renewable energy and to work closely with industrial partners which are actively involved in device development, marine energy generation, and renewable energy planning and permitting.

Project description The next step in the development of commercially viable tidal stream energy technology is the realization of deployments of arrays of devices. This step will require tools for proper resource assessment as well as determination of the potential environmental impacts due to these arrays. This project will develop a tool for performing such activities through the adaptation of a coastal ocean modelling system for the task. This tool shall be able to account for real world conditions such as complex bathymetry, free surface and bottom boundary layers, flow stratification and time varying flow conditions. The developed product shall be applied to a real world scenario during the course of the project. Complete project details can be found at

<http://www.greatwesternresearch.ac.uk/formproj.php?sessionId=&action=Details&id=351>

We are looking for an MSc or BSc graduate in a relevant discipline such as oceanography, engineering, or marine or environmental sciences, with a keen interest in numerical modelling and the development of marine renewable energy. You will be a member of the Coastal Processes Research Group (www.coastalprocesses.org) in Plymouth but will work closely with collaborators from a companion project based at the University of Bristol and the industrial partners in Bristol. Desirable skills include familiarity with coastal ocean modelling, coastal oceanography, and/or hydraulic engineering and high computer literacy as well as familiarity with common programming languages. Training will be provided as required. The starting date for the studentship will be 1 October 2008.

The studentship is for 3 years and the student will receive a stipend of £12,940 per annum and tuition fees (approximately £3,330 p.a.). The studentship is open only to applicants from within the EU.

Applicants should send a CV, a statement of interest and contact details of two academic references to:- Mrs Ann Treeby, Science Research Admin. Assistant, University of Plymouth, A504, Portland Square, Drake Circus, Plymouth, PL4 8AA or by email to: ann.treeby@plymouth.ac.uk. Informal enquiries may be submitted to Dr. Daniel C. Conley at: daniel.conley@plymouth.ac.uk.

It is planned to hold interviews for short-listed candidates the week after the closing date.

Closing date: 12 noon, Friday 18 July 2008