

# **Postdoctoral Research Position on interaction of wave, vegetation and structures in coastal areas**

## **About the Role**

Applications are invited for a full-time Postdoctoral Research Assistant position to work in the project “understanding Wave-VEgetation-Structure interaction for developing Ecosystem-based coastal defence” (WAVES), which aims to provide fundamental theory and methods for developing Ecosystem-based Coastal Engineering in practice.

This post is full time, fixed term appointment for 3 years, with an expected start date of 1st April 2021.

## **About Us**

Founded in Shanghai in October 1951, East China Normal University (ECNU) is one of the most prestigious universities in China. ECNU has established exchange and cooperative partnerships with more than 150 internationally renowned universities and academic institutions.

The State Key Laboratory of Estuarine and Coastal Research (SKLEC) in East China Normal University, China, was established by the State Planning Commission of China in 1989 and went into operation in December 1995. Over the last 25 years, SKLEC has been strongly involved in providing solutions to resolve theoretical and practical problems encountered in the very diverse and large scale coastal developments, including a national comprehensive survey on coastal resources, the construction of harbours and ports, channel regulations, the protection of coastal wetlands and the implementation of engineering structures.

## **Role of Responsibilities**

The responsibilities of the post will include carrying out vigorous, high-level research in the area of wave-vegetation-structure interaction with emphasis on the impact of vegetation on wave nonlinearity, overtopping and induced sediment transport. The role is expected to involve developing vegetation modules into the state-of-the-art wave-sediment model suite, collecting laboratory and field data, conducting numerical modelling and data analysis, and submitting publications regularly in referred journals.

## **Minimum Requirements**

- A PhD or equivalent qualification in coastal engineering, ocean engineering, physical oceanography, mathematics or closely related field, or should be finalising their PhD or waiting for their viva date.
- A proven track record in research and publications commensurate with their career stage.
- Experience in working with wave or hydrodynamic models, and in analysis of numerical and in situ data using Python and/or Matlab and/or R;
- Strong desire to work at the heart of, and fully participate in, an active research group in the field as well as have excellent written and oral communication skills.

Experience in Fortran or C++ code development and application of machine learning packages are desirable.

Informal enquiries should be addressed to Prof Zhong Peng at [zpeng@sklec.ecnu.edu.cn](mailto:zpeng@sklec.ecnu.edu.cn), or, Prof Qing He at [qinghe@sklec.ecnu.edu.cn](mailto:qinghe@sklec.ecnu.edu.cn). General information can be found at <http://english.sklec.ecnu.edu.cn>

### **Benefits**

We offer competitive salaries and access to a comprehensive range of personal and professional development opportunities. In addition, we offer a range of work life balance and family friendly, inclusive employment policies, flexible working arrangements. The successful candidate may also have the opportunity to apply for International Postdoctoral Exchange Fellowship Program (Talent-Introduction Program).

### **How to apply**

Applicants should submit to Ms. Lu Wang via email ([rczp@sklec.ecnu.edu.cn](mailto:rczp@sklec.ecnu.edu.cn)) a PDF document containing a cover letter, CV including list of publications, and the names and contact information of three references. Applications will be reviewed as received.

Closing date for applications: 22/3/2021