**Assistant Professor or Postdoc in Wave-current/Hydrodynamic Modeling, observation and data analysis of coastal zone**

***What You Will Do***

Miaohua Mao’s numerical modeling team seeks applicants with expertise in the numerical modeling or observation and data analysis of the coastal, estuarine, lake and surf zone hydrodynamics. The successful candidate will work on the parameterizations and physical explanations of plume dynamics, wave dynamics, storm surge, circulation, and sediment transport dynamics or further setting up and developing the observational system in the coastal zone such as the Bohai Sea or Yellow River Delta nearshore and surf zone, China. Outcomes from this work will be presented at the national and international conferences and published in the peer-reviewed high-quality journals.

***What You Need***

*Desired Skills:* The successful candidates should have experience in the ocean/wave/surf zone modeling, fluid dynamics, or coastal observation. The candidate will need the skill in the data analysis and visualization (e.g., Matlab), and be familiar with the Linux system, Fortran and C++ codes. The experience in the model calibration and validation against observational data is preferred. The ability to work in a highly cooperative but independent team is a requirement. **The experience of the publications in the peer-reviewed journals is highly encouraged,** such as those ranking at least Quartile 3 based on the Chinese Academy of Sciences journal ranking system.

*Education:* A Ph.D. degree in the marine/ocean science, physical oceanography, fluid dynamics, geophysics, mathematics, earth science, or related fields.

***Where You Will Work***

Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences is located at the beautiful coastal city of Yantai, Shandong Province, China. The successful candidate will be provided an office together with other researchers at Yantai, while he/she could visit the University of Maryland Eastern Shore numerical modeling group in Maryland, USA. The numerical simulations will be conducted via the remotely connected supercomputer system. The assistant professor or postdoc position is 2 or 3 years.

***Application Procedure***

Before a formal application, the applicants are encouraged to send a brief description of your research interest/area and an updated CV to Miaohua Mao (<http://ir.yic.ac.cn/profile/mhmao>) at **mhmao@yic.ac.cn**.

**Location:** Yantai, China.

**Organization Name:** Yantai Institute of Coastal Zone Research (YIC), Chinese Academy of Sciences (CAS). (http://www.yic.cas.cn/)

**Job Title:** Hydrodynamic/wave modeling or observation and data analysis in the Bohai Sea, coastal or surf zone.

**Appointment Type:** Assistant Professor or Postdoc.

**Salary:** Up to 45 k U.S. dollars/year (~300 k RMB) plus social benefit + free accommodation in the faculty building of the Institution.

**Introduction of the current group:**

**The numerical modelling team** is an international team, which includes the full time Professor (1), Assistant Professor (2), and Postdoc (2) from China, India, Iran, Visiting Professor from US, Visiting Scholar from Shenzhen University (Assistant Professor). This team has recruited fresh graduate students from Vietnam National University (CAS full scholarship) and 5 domestic graduate students (including 1 Ph.D.). The disciplines of the team members involve atmospheric science, physical oceanography and hydrology, and their research interests focus on the observational numerical modelling and observational analysis. This is a vigorous team with the guidance and help from the experienced US Visiting Professor, we hope excellent postdoc to join this group. The focus of the research fields including the model development and applications for atmosphere (e.g., WRF), wave-current (e.g., FVCOM/SWAVE), wave (e.g., SWAN), hydrodynamics (e.g., FVCOM or ADCIRC), Lagrangian particle-tracking, or water quality (FVCOM-ICM); the observation instruments include the Valeport MIDAS DWR (for wave), Seabird CTD, Teledyne Workhouse ADCP, Nortek 400kHz ADCP, BL 900 MM wave buoy, LS-DB300MM surface drifters etc.

Key Faculty Introduction:

**Miaohua Mao**

Dr. Miaohua Mao got his BS in Zhejiang University (China) and achieved PhD degree at University of Maryland Eastern Shore (USA) in 2018. Dr. Mao works at Yantai Institute of Coastal Zone Research (YIC), Chinese Academy of Sciences (CAS) as Full Professor and Ph.D. advisor. His research interests include but are not limited to nearshore and surf zone hydrodynamics, numerical modeling of coastal circulation and wave dynamics, and observation of wave-current interaction. Dr. Mao leads several publications in the prestigious journals including *JGR: Oceans* and *Ocean Modelling* and presented over 20 times at the international academic conferences. Dr. Mao is a reviewer of peer-reviewed journals such as *Progress in Oceanography,* *Estuarine, Coastal and Shelf Science* (ECSS), *Ocean Dynamics*, and award as the outstanding contribution in reviewing ECSS of year 2018. Dr. Mao is a PI (Principal Investigator) for several projects with funding >7M RMB, including those from the National Science Foundation of China (NSFC), Chinese Academy of Science (CAS), Yantai Government, Yantai Institute of Coastal Zone Research (YIC, CAS) etc.

Profile: <http://ir.yic.ac.cn/profile/mhmao>

http://www.yic.cas.cn/yjsjy/yjsdsjj/202103/t20210331\_5988045.html
Google scholar link: https://scholar.google.com/citations?user=K8YP6CMAAAAJ&hl=en
Researchgate link: https://www.researchgate.net/profile/Miaohua\_Mao

**Xinyi Kang**

Dr. Xinyi Kang obtained her BS from Ocean University of China in 2013 and graduated from University of Maryland Eastern Shore with her PhD degree in 2019. Dr. Kang is currently working in Key Laboratory of Coastal Environmental Processes and Ecological Remediation, Yantai Institute of Coastal Zone Research (YIC), Chinese Academy of Sciences. Her research interests are nearshore estuarine dynamics, including the simulation and observation of nearshore circulation, bio-physical coupling processes, eutrophication, nutrient transport and circulation, water quality modeling, and the impact of climate change on nearshore dynamics. She has published papers in Limnology and Oceanography, Estuarine, Coastal and Shelf Science, and Estuaries and Coasts. Dr. Kang has undertaken and participated in Two-hundred Talents Plan of Yantai and frontier projects of YIC. Dr. Kang serves as Guest Editor in Estuarine, Coastal and Shelf Science in 2021 and 2022. Dr. Kang also worked as Session CO-Convener of 26th Biennial Coastal and Estuarine Research Federation Conference, November, 2021.

Researchgate: https://www.researchgate.net/profile/Xinyi-Kang-3

**Bishnupriya Sahoo**

Dr. Bishnupriya Sahoo, one of the oversea researchers, has been working as a tenure track assistant research scientist in the Yantai Institute of Coastal Zone Research, Chinese Academy of Science since May 2019. Dr. Sahoo, after completing her Bachelors and Masters in Mathematics, earned her doctorate in Physical Oceanography from the premier Indian Institute of Technology, Kharagpur, India, in March 2018. She has one year of post-doctoral experience as a Research Associate in India. Her research interest broadly comprises studies on tropical cyclone modelling, storm surge, cyclonic waves and coastal inundation modelling, coastal vulnerability assessment, ocean and lake circulation modelling and Artificial Intelligence techniques, which are found in several peer-reviewed international journals such as the Journal of Geographical Research-Ocean, International Journal of Climatology, Journal of Environmental Management, Estuarine and Coastal Shelf Science, Theoretical and Applied Climatology, Ocean Engineering and Soft Computing. She is an active reviewer of international journals like Marine Geodesy, Progresses in Oceanography, Estuarine and Coastal Shelf Science, and conference publications such as International Offshore and Polar Engineering Conference (ISOPE) and Water Resource and Environment (WRE). She was awarded the Young Scientist Award for proposal on Bohai Sea coastal vulnerability studies (Grant No. 2020FYM0003) in 2020 from CAS and won a research fund worth 400k RMB (Grant No. 42050410325) from the National Natural Science Foundation of China (NSFC) during 2021.01-2022.12.

Dr. Sahoo’s research can be found on ResearchGate and Google Scholar with the following links:

<https://www.researchgate.net/profile/Bishnupriya_Sahoo>

<https://scholar.google.com/citations?user=Pj-CDW8AAAAJ&hl=en>