Research Fellow (Coastal Engineering) - VW5
Singapore Institute of Technology

Job Title	Research Fellow (Coastal Engineering) - VW5
Department	Engineering
Institution	Singapore Institute of Technology
	Singapore, , Singapore
Date Posted	Sep. 7, 2023
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Research Scientist/Associate
Academic Field(s)	Water Resources Engineering
	Engineering - Other
Job Website	https://careers.singaporetech.edu.sg/cw/en/job/498501/research-fellow-coastal-engineering-vw5
Apply By Email	
Job Description	

Research Fellow (Coastal Engineering) - VW5

Job no: 498501
Department: Engineering
Contract type: Contract
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As a University of Applied Learning, SIT works closely with industry in our research pursuits. Our

research staff will have the opportunity to be equipped with applied research skill sets that are relevant to industry demands while working on research projects in SIT.

The primary responsibility of this role is to deliver on an industry innovation research project where you will be part of the research team to lead the storm surge modelling in the Singapore Sea. As a specialist in wave modelling software, the successful candidate will work on cutting-edge projects related to coastal and ocean wave modelling using Delt3D software. The role of the researcher is to contribute to the understanding and prediction of storm surges and advance the knowledge of the occurrence of storm surges. The researcher will also work with team members within the consortium in generating necessary data required for developing a machine learning model for storm surge prediction.

Key Responsibilities

- Participate in and manage the research project with Principal Investigator (PI), Co-PI and the research team members to ensure all project deliverables are met.
- Undertake these responsibilities in the project:
  i. Delft3D and SWAN Modelling: Utilize Delft3D and SWAN software to develop and validate numerical models for wave propagation, storm surge modelling, and coastal dynamics.
  ii. Data Analysis: Process and analyze coastal and ocean wave data to improve model accuracy.
  iii. Research: Conduct research to enhance wave modelling techniques and contribute to the advancement of coastal engineering and oceanography.
  iv. Impact Assessment: Evaluating the potential impacts of storm surges on coastal regions, including flood risk assessments and vulnerability analyses.
  v. Collaboration: Collaborate with interdisciplinary teams, including hydrodynamic researchers, coastal engineers, and oceanographers.
- Reporting: Prepare research findings for publication in scientific journals and present results at conferences. Carry out Risk Assessment, and ensure compliance with Work, Safety and Health Regulations.
- Coordinate procurement and liaison with vendors/suppliers.
- Work independently, as well as within a team, to ensure proper operation and maintenance of equipment.
- Assists in co-supervision of Final Year Projects (FYP) or capstone projects students together with the project PI

Job Requirements

- PhD or Master degree in a related field with a focus on coastal engineering, oceanography, or hydrodynamics.
- Proficiency in wave modeling software, particularly Delft3D and SWAN.
- Strong analytical and problem-solving skills.
- Research experience in coastal and ocean waves is preferred.
- Excellent communication (verbal and written) and teamwork abilities
- Proficiency in machine learning will be an advantage

Key Competencies

- Able to build and maintain strong working relationships with people within and external to the university.
- Self-directed learner who believes in continuous learning and development
- Proficient in technical writing and presentation
- Possess strong analytical and critical thinking skills
- Show strong initiative and take ownership of work

Apply now
Advertised: 07 Sep 2023 Singapore Standard Time
Applications close: 05 Jan 2024 Singapore Standard Time

Contact Information

Contact

Singapore