Research Fellow (Engineering solutions for beach erosion control and beach land restoration)
Nanyang Technological University

Job Title	Research Fellow (Engineering solutions for beach erosion control and beach land restoration)
Department	School of Civil and Environmental Engineering
Institution	Nanyang Technological University Singapore, , Singapore
Date Posted	Nov. 5, 2024
Application Deadline	Open untill filled
Position Start Date	Available Immediately
Job Categories	Research Scientist/Associate
Academic Field(s)	Engineering - Other Ecological and Environmental Civil Engineering
Job Website	https://ntu.wd3.myworkdayjobs.com/Careers/job/NTU-Main-Campus-Singapore/Research-Fellow--Engineering-solutions-for-beach-erosion-control-and-beach-land-restoration-in-Singapore-_R00018966
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Apply By Email	

Job Description

Centre for Urban Solutions is a research centre in innovative solutions and technologies for urban

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centres and built environment. The key objective is to support efforts to provide leadership in research and development in innovative solutions for sustainable living and infrastructures for future cities.

The Coastal Protection and Flood Management Research Programme (CFRP) aims to advance knowledge in coastal and flood resilience and spur the growth of a vibrant research and development ecosystem for coastal and flood resilience in Singapore.

The (CFRP) research framework consists of four vertical programmes in which applied research is conducted to generate new knowledge and develop novel, effective, smart solutions for coastal protection and flood management. The framework has three horizontal programmes of broad outcomes that inform and support the verticals. The CFRP will develop innovative multi-functional coastal protection and flood management solutions and will: Catalyse the growth of a local R&D ecosystem to support long-term national agenda; Drive the development and application of effective and smart solutions; Facilitate translation and commercialisation of solutions.

As part of this programme, Vertical 1 Innovative Engineering Solutions, Project 4: Eco-cement enhanced methods for beach erosion control and beach land restoration through soil accumulation in Singapore, will explore eco-friendly and sustainable solutions for coastal protection and land reclamation over beach land inundated by sea level rise.

We are looking for a Research Fellow, based in School of Civil and Environmental Engineering (CEE), to work effectively for advancing the engineering solutions to develop a new Eco-cement enhanced method to form a barrier for coastal protection and land restoration for Singapore and beyond. The role will focus on performing independent and collaborative research to meet the project objectives, developing new solutions, and publishing high-quality journal papers to promote the international reputation of the Centre and the University.

Key Responsibilities:

- Conduct in-depth research on advanced environmentally friendly materials suitable for coastal

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barrier design and construction, considering durability, environmental impact, and cost-effectiveness.

- Design and oversee laboratory experiments with research team to test the performance and durability of materials under simulated coastal environmental conditions.
- Perform numerical study of the model test. Analyze and interpret data to make informed recommendations for costal protection system design and optimization
- Writing and publication of results in peer-reviewed journals
- Assist in securing external funding through grant applications and proposals

Job Requirements:

- PhD in Coastal Engineering, Biogeotechnical Engineering, Civil Engineering or related discipline
- At least 1-year research experience in related areas.
- Strong background in materials testing, analysis, and selection.
- Experience in ground improvement, geotechnical foundation design, finite element analysis.
- Excellent analytical and problem-solving skills.
- Ability to work collaboratively in a multidisciplinary team.
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Publication track record is an advantage

- Good written and oral communication skills in English - essential for data analysis and communication with stakeholders

Interested applicants are invited to submit a cover letter/full CV/ statement of research interests in one document. Enquiries about this position can be made to Dr. WU Shifan (sfwu@ntu.edu.sg).

We regret to inform that only shortlisted candidates will be notified.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

Singapore