



THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學



**The Hong Kong Polytechnic University
Research Institute for Land and Space (RILS)
RILS Public Lecture Series
A Sustainable Approach for Marine Reclamations
in Coastal Cities**

Date & time: Wednesday 19 October 2022
3:00pm – 4:00pm

Speaker: **Ir Prof. Jian-hua Yin**
Chair Professor of Soil Mechanics
Department of Civil and Environmental Engineering

Moderator: **Prof. Xiaoli Ding**
Director of RILS

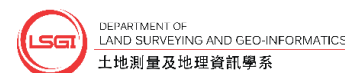
Location: Online via Zoom

Registration link: https://polyu.zoom.us/webinar/register/WN_s8YNoY-JTxCdk95Otd4xew

All are welcome to attend.
An e-certificate of participation will be sent to participants upon request.

Contact us: Ms Cathy Kwok (RILS Secretary)
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Co-organisers:





RILS Public Lecture Series

A Sustainable Approach for Marine Reclamations in Coastal Cities



Ir Prof. Jian-hua Yin

Presentation Title

A Sustainable Approach for Marine Reclamations in Coastal Cities

Abstract

The presentation will first address the burning social issue of short-supply of land for affordable housing in Hong Kong. Marine reclamations provide the most feasible solution for a stable supply of land in Hong Kong for mid-term and long-term developments. The use of local dredged marine deposits for marine reclamations will provide a faster and more economical solution to the short-supply of land problem. This presentation will then introduce the new method and technology for use of dredged marine deposits (MD) for marine reclamations and fast consolidation of the MD using horizontal and vertical drains with vacuum and/or fill surcharge. The project cases using dredged marine deposits for marine reclamations in other coastal cities will be briefly introduced. In PolyU, recent results and findings of physical model tests on fast consolidation of the MD will be presented. Recently, a prototype field trial, using a pit of 12 m (length) by 8 m (width) by 3.5 m (depth), was successfully conducted at a project site with the concerted efforts of CEDD, PolyU and the site team, to further demonstrate the practicality and benefits of PolyU's method and technology in utilizing HKMD for marine reclamations. It is found that the marine deposits at the trial pit gained significant strengths during the 7-month test period, and would be capable of supporting subsequent typical constructions. Finally, the speaker will briefly introduce a simple and reliable method for predicting both short-term and long-term consolidation-creep settlements of reclamations.



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Biography of Ir Prof. Jian-hua Yin

Professor Yin received a PhD from The University of Manitoba, Canada in 1990. He joined Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University in 1995 as an Assistant Professor. He is now a Chair Professor of Soil Mechanics of the University. Professor Yin has a good track record in research and has played a leading role in development of advanced soil testing equipment, innovative fiber optical sensors, establishing a large-scale multi-purpose physical modeling facility for studying geo-hazards, organization of regional and international conferences. Professor Yin is a Vice-President of International Association for Computer Methods and Advances in Geomechanics (IACMAG) (founded in USA) and a Co-Editor of International Journal of Geomechanics (ASCE). He has received the honours of the prestigious “John Booker Medal” in 2008, “Chandra S. Desai Excellence Award” in 2011, and “Outstanding Contributions Medal” in 2017 from all IACMAG. He received “Mao Yi-Sheng Soil Mechanics and Foundation Engineering Youth Award” for 2000. In 2001, he was the first “Changjiang Scholars Distinguished Professor” in Soil Mechanics in Mainland. He delivered the high-status 2011 “Huang Wenxi Lecture” in Chinese Mainland. He was ranked in Top 84 among 52403 scientists in “Geological & Geomatics Engineering” in World’s Top 2% Scientists by Stanford-University in 2021.



RILS Public Lecture Series

A Sustainable Approach for Marine Reclamations in Coastal Cities

Programme

| Time | Title |
|-----------------|--|
| 3:00pm – 3:50pm | A Sustainable Approach for Marine Reclamations in Coastal Cities Ir Prof. Jian-hua Yin <i>Chair Professor of Soil Mechanics</i> <i>Department of Civil and Environmental Engineering</i> |
| 3:50pm – 4:00pm | Q & A Session |