




Jointly organized by:
Faculty of Engineering
Department of Civil Engineering
The University of Hong Kong


Distinguished Public Lecture (Online)

Getting to the Right Answer:

The Role of Constitutive Models and Numerical Schemes in Solving the Boundary-Value Problems of Soil Mechanics

 Date: 29 June, 2022 (Wed)

 Time: 8:00 p.m. - 9:00 p.m. (HKT)

 Zoom: <https://hku.zoom.us/j/93801199016>
(93801199016)

Professor Rodrigo Salgado

Charles Pankow Professor in Civil Engineering
Purdue University



About the Speaker

Rodrigo Salgado is the Charles Pankow Professor in Civil Engineering at Purdue University and co-Director of the Center for Offshore, Foundation and Energy Engineering (COFEE). He holds a Ph.D. and an M.S. degree from the University of California, Berkeley. An author of 158 journal publications, 100 conference publications, 40 technical reports and the geotechnical engineering textbook *The Engineering of Foundations, Slopes and Retaining Structures*, Prof. Salgado has received several awards, including the *Geotechnical Research Medal* of the Institution of Civil Engineers of the U.K. (in 2015), the International Association for Computer Methods and Advances in Geomechanics *Excellent Contributions Award* (in 2008) and the American Society of Civil Engineers's *Huber Research Prize* (in 2004) and *Arthur Casagrande Award* (in 1999). He is the Editor-In-Chief of the *Journal of Geotechnical and Geoenvironmental Engineering* of the American Society of Civil Engineers.

Abstract

Although soil mechanics has existed as a science for almost a century, its development has largely been based on relatively simple models that do not realistically capture soil behavior. This has led to a somewhat limited ability to obtain realistic solutions to the boundary-value problems of geotechnical engineering. As a result, analysts often resort to calibrations or a general reliance on the results of calculations combined with "engineering judgment." The tools required to perform realistic simulations are advanced constitutive models and rigorous numerical schemes. The lecture will review progress in the development of these analysis tools, and illustrate the quality of the results from performing analyses relying on their use.



Registration is required only for participants who require attendance certificate:

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An electronic certificate of attendance will be issued to registered participants after the public lecture.



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