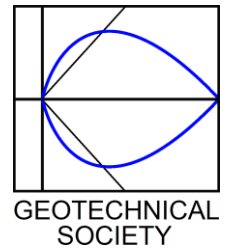




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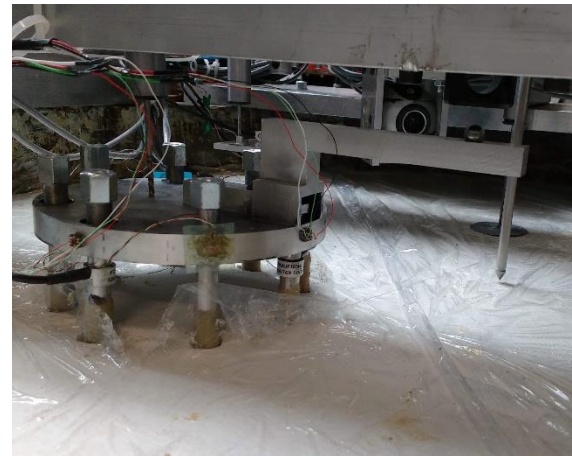
Innovative design criteria for piled foundations of wind turbines

Prof. Luca de Sanctis

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Seminar overview:

Piled foundations supporting tall wind turbines are subjected to inclined and remarkable eccentric loads during their life span due to extreme wind conditions. A novel, exact solution for failure envelopes of pile groups under combined axial-moment load based on theorems of limit analysis is presented and discussed. The attention is then placed on the results of an intense centrifuge program aimed at validating the above solution. The focus is set finally on a recent, physically motivated mathematical framework for settlements and rotations prediction of piled foundations under eccentric load. The new concepts and ideas emerging from this research may lead to tangible and intangible advantages in the field of renewable energy industry.



Physical models of annular shaped pile groups for centrifuge testing

Biography:

Born in Naples on sept. 1971, Prof. Luca de Sanctis obtained his undergraduate degree at the University of Naples Federico II, followed by a PhD at Sapienza University of Rome. He is Associate Professor of Soil Mechanics and Geotechnical Engineering at University of Naples 'Parthenope'. His research fields of interest are: (a) failure envelopes and macro-elements for pile groups, (b) numerical and physical modelling of foundations and embedded retaining structures, (c) geo-risk assessment and mitigation for monuments and historical sites. He has co-authored about 80 scientific publications. Team Leader of many national and intern. research projects granted by public and private Institutions.

When and where:

Wednesday, 27 Jan 2021, 19:00
ONLINE

Queries:

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