

# GEOTECHNICAL ENGINEERING

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Honouring Prof. Harry G Poulos

Lead Guest Editor: Prof. John Carter

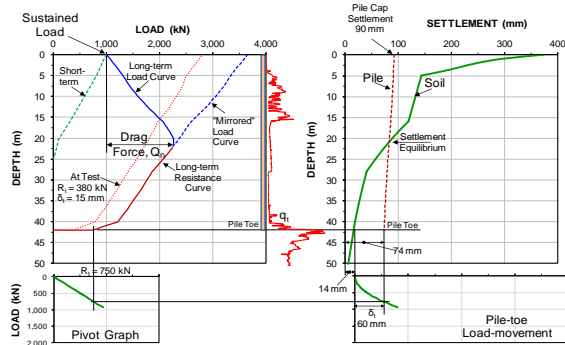
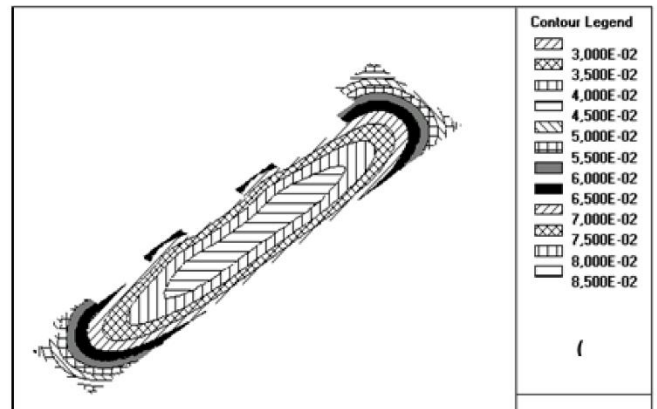


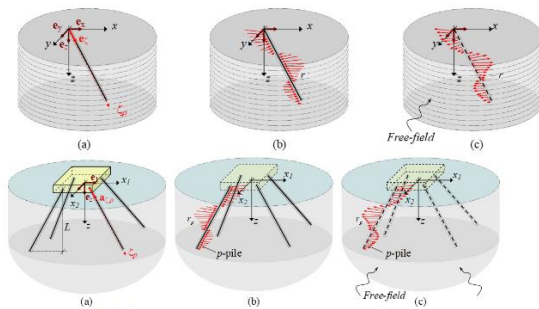
Figure 6 Long-term distributions of load and resistance for a single pile



Liquefaction Induced Downdrag for the Juan Pablo II Bridge at the 2010 Maule Earthquake in Chile, after Fellenius et al., 2020.

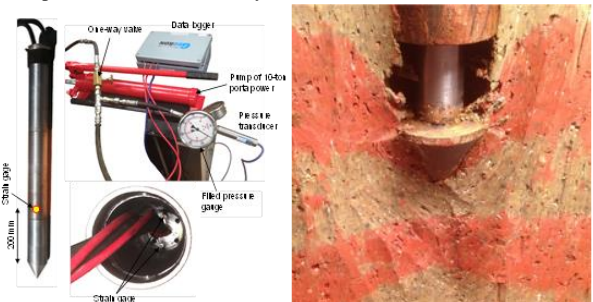


Biodegradable Prefabricated Vertical Drains: from Laboratory to Field Studies, after Thanh Trung Nguyen et al., 2020.



Numerical and Simplified Methods for Soil-Pile Interaction Analysis, after Dezi et al., 2020.

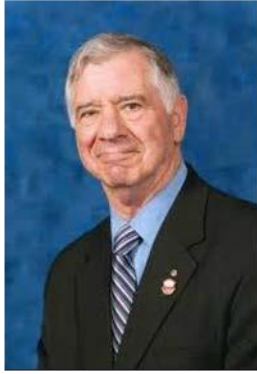
Some Factors that Influence the Prediction of the Behaviour of Piled Rafts via Simplified (Numerical) Analyses, after Cunha et al., 2020.



P-Cone: A Novel Cone Penetration Test Device for Deep Foundation Design, after Hai and Anand, 2020.



Evaluation of Analytical and Numerical Techniques to Simulate Curtain Pile Walls in a Tropical Soil of the Federal District of Brazil, after Jacazz et al., 2020.



**Honouring Prof. Harry G. Poulos**

**Prof. Harry G. Poulos** obtained a Civil Engineering degree from the University of Sydney in 1961, and then went on to do a Ph.D. degree in Soil Mechanics, graduating in 1965. He worked with the consulting firm of McDonald Wagner and Priddle for a year before joining the Department of Civil Engineering at Sydney University in 1965. He was appointed a Professor in 1982, a position which he held until his retirement in 2001. In 1989, he joined the consulting firm of Coffey Partners International and is currently a Senior Principal with the Coffey Group. He is also an Emeritus Professor at the University of Sydney, and an Adjunct Professor at the Hong Kong University of Science and Technology.

He has published books and technical papers on foundation settlements, pile foundations, and offshore geotechnics. His main research interests continue to be in deep foundations and their application to high-rise buildings, and to problems relating to ground movements near foundations.

He has been involved in a large number of major projects in Australia and overseas including the Docklands Project in Melbourne, the Crown tower development in Sydney, Egnatia Odos highway project in Greece, high-rise foundation problems in Hong Kong, the Emirates twin Towers in Dubai, the Burj Khalifa tower in Dubai, the Incheon 151 Tower in Korea, the Dubai Creek Tower in Dubai, the MahaNakon building in Bangkok, and the Dubai tower in Doha, Qatar.

In 1993, he was made a Member of the Order of Australia for services to engineering. He was elected a Fellow of the Australian Academy of Science in 1988, a Fellow of The Australian Academy of Technological Sciences and Engineering in 1996, and an Honorary Fellow of the Institution of Engineers Australia in 1999. In 2010, he was elected a Distinguished Member of the American Society of Civil Engineers, the first Australian to receive this honour, and in 2014, he was elected as a Foreign Member of the US National Academy of Engineering.

He has received a number of awards and prizes, including the Kevin Nash Gold Medal of the International Society for Soil Mechanics and Geotechnical Engineering in 2005. He was the Rankine Lecturer in 1989 and the Terzaghi Lecturer in 2004, and was selected as the Australian Civil Engineer of the Year for 2003 by the Institution of Engineers Australia. In 2017, he received the ASCE Outstanding Projects And Leaders (OPAL) award for design.



**Lead Guest Editor: Emeritus  
Professor John Carter**

**Prof. John Carter** has more than 30 years' experience in teaching, research and consulting in civil, geotechnical and offshore engineering. His research interests include analytical and numerical modeling, soil-structure interaction, rock mechanics, the behaviour of cemented and uncemented carbonate soils, soft soil engineering, tunnelling, and offshore foundations. He has attracted more than \$5 million in competitive research funding and been associated with development projects attracting additional grants of more than \$4 million. He is the author of several hundred refereed technical papers in geotechnical engineering and engineering mechanics, covering a diverse range of topics from theoretical mechanics to experimental applications. His research output includes a significant body of work on the engineering behaviour of seabed carbonate sediments.

Because of the expertise acquired during his research career in geotechnics, Prof. John Carter has been called upon to consult widely to industry on a range of geotechnical projects, including soft clay foundations,

offshore foundations, retaining walls, and buried structures. He has also been retained as an expert consultant on numerous offshore foundation problems for a number of major oil and gas companies, including BHP, Esso, Woodside, Wapet, Bond Oil, Amoco, and Exxon. He is currently a consultant director of Advanced Geomechanics, a geotechnical consultancy based in Perth, providing specialist advice to the offshore industry on foundation problems and on-shore and offshore site investigations. He has also been involved in the commercialization of research and the marketing of its outcomes, including his own specialist geotechnical software.

Between 1997 and 2000 he was a director, representing the interests of the University of Sydney, of Benthic GeoTech Pty Ltd, a \$10 million joint venture company that conceived, designed, built and now operates PROD, the Portable Remotely Operated Drill, which is used to penetrate the ocean floor, conduct in situ tests and recover core samples. Prof. John Carter's experience with engineering projects has required him to work in Australia, Britain, and the USA. He has authored more than 60 major consulting reports for a range of clients, including mining companies, oil companies, other engineering consultancies, and lawyers.

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# GEOTECHNICAL ENGINEERING

## Paper Contribution, Technical Notes, and Discussions

*Geotechnical Engineering* is the official journal of the Southeast Asian Geotechnical Society and the Association of Geotechnical Societies in Southeast Asia. It is published four times a year in March, June, September, and December and is free to members of the Society. Please visit our website at <http://www.seags.ait.ac.th> for the membership information.

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The guidelines for authors are as follows:

1. The manuscript including abstract of not more than 150 words and references must be typed in Times New Roman 9 on one side of A4 paper with a margin of 25 mm on each side. The abstract should be written clearly stating the purpose, the scope of work, and procedure adopted together with the major findings including a summary of the conclusions.
2. The paper title must not exceed 70 characters including spaces.
3. The maximum length of papers in the print format of the Journal is 12 two-column pages in single-spaced in Times New Roman 9 including figures and tables. A Journal page contains approximately 1,040 words. Authors can approximate manuscript length by counting the number of words on a typical manuscript page and multiplying that by the number of total pages (except for tables and figures). Add word-equivalents for figures and tables by estimating the portion of the journal page each will occupy when reduced to fit on a 160 mm x 240 mm journal page. A figure reduced to one-quarter of a page would be 260 word-equivalents. When reduced, the figure must be legible and its type size no smaller than 6 point font (after reduction).
4. Figures: Line art should be submitted in black ink or laser printed; halftones and color should be original glossy art. Figures should be submitted at the final width, i.e., 90 mm for one column and 185 mm for two columns. The font of the legends should be in Times New Roman and should use capital letters for the first letter of the first word only and use lower case for the rest of the words. Background screening and grids are not acceptable.
5. Each table must be typed on one side of a single sheet of paper.
6. All mathematics must be typewritten and special symbols identified. Letter symbols should be defined when they first appear.
7. The paper must have an introduction and end with a set of conclusions.
8. Practical applications should be included, if appropriate.
9. If experimental data and/or relations fitted to measurements are presented, the uncertainty of the results must be stated. The uncertainty must include both systematic (bias) errors and imprecisions.
10. Authors need not be Society members. Each author's full name, Society membership grade (if applicable), present title and affiliation, and complete mailing address must appear as a footnote at the bottom of the first page of the paper.

11. Journal papers submitted are subject to peer review before acceptance for publication.
12. Each author must use SI (International System) units and units acceptable in SI. Other units may be given in parentheses or in an appendix.
13. A maximum of five keywords should be given.
14. References  
American Petroleum Institute (API) (1993). Recommended Practice for Planning, Designing, and Constructing Fixed Offshore Platforms – Working Stress Design, API Recommended Practice 2AWSD (RP 2A-WSD), 20th edition, 1993, p 191.  
Earth, J.B., and Geo, W.P. (2011). “Asian Geotechnical amongst Authors of Conference Publications,” Proceedings of Int. Conference on Asian Geotechnical, publisher, city, pp 133-137.  
Finn WDL and Fujita N. (2002). “Piles in liquefiable soils: seismic analysis and design issues,” Soil Dynamics and Earthquake Engineering, 22, Issues 9-12, pp 731-742.
15. Discussions on a published paper shall be made in the same format and submitted within six months of its appearance and closing discussion will be published within twelve months.

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