



GEOTECHNICAL SEMINAR

REPRISE OF THE 28TH CHING FUNG KEE MEMORIAL LECTURE

JOINTLY ORGANIZED BETWEEN
GEOTECHNICAL SOCIETY OF SINGAPORE (GEOSS)
& CENTRE FOR SOFT GROUND ENGINEERING



NUS
National University
of Singapore

Ground Improvement as Alternative to Piling

Effective Design Solutions for Heavily Loaded Structures

by

Dr. Ing. Wolfgang Sondermann
Chairman German Geotechnical Society

(PDU/STU pending approval)

Date:	Monday, 12 November 2018
Time:	6:30pm Reception 7:00pm Seminar
Venue:	Engineering Auditorium Faculty of Engineering National University of Singapore

SYNOPSIS

Well-designed ground improvement options without compromising on stringent design criteria may effectively replace conventional foundation solutions for a wide range of applications involving heavy loads and structures sensitive to settlement. Case studies illustrate the application of different ground improvement methods used in different projects and soil conditions by adopting of advanced design considerations to achieve optimal solutions for the project and customers benefit. Beneficial returns in terms of lowering construction costs and shortening construction time with consistency in quality are discussed where applicable in relation to the required capabilities and experiences of an organization to deliver the alternatives. Opportunity management gives the chance to achieve the project scopes for the client by optimizing cost, time and quality and recommendations are summarized to foster the chance to identify optimal geotechnical solutions. Finally, conclusions are drawn and recommendations given for an improved project management system to achieve beneficial return from early opportunity management.

THE SPEAKER

Dr.-Ing. Wolfgang Sondermann received his "Diplom-Ingenieur" on the area of expertise in structural analysis, solid construction and geotechnique from Technische Universität Braunschweig (Germany) in year 1976. He was then appointed as the design engineer and project manager for Ph. Holzmann AG, Frankfurt, based in central technical department at headquarters, working on different civil engineering projects in Germany and abroad (KSA, Libya, Iran etc.). In year 1980, Dr.-Ing. Wolfgang Sondermann did his PhD in "Stresses and Deformation of Reinforced Earth Structures" at Technische Universität Braunschweig (Germany) under Prof. Dr.-Ing. Hanns Simons, and he received his PhD title in year 1983.

His career further expanded when he joined as Partner and Managing Director of Geotechnical Consultants Simons & Partner GmbH. He was involved as the Consultant for different projects in Germany and abroad, i.e. nuclear reconditioning plant in Gorleben and Dragahn, mining plant for final storage of nuclear waste Gorbelen, cement factory in Iraq. He also introduced Tensar geogrid for reinforced earth structures, consulting activities in geotechnical problems on different environmental projects as Münchheagen, Malsch etc.

In year 1986, he joined Keller Grundbau GmbH and was attached to central technical department, mainly to support in the introduction of Soilcrete. Subsequently, he was also involved in different environmental projects and development of insitu treatment of contaminated subsoil. In year 1990, he was promoted to be the branch manager of Northern branch in Germany, managing growth in Eastern Germany after reunification and since year 1994, he extended these activities in Eastern Europe as well.

Dr.-Ing. Wolfgang Sondermann became the Managing Director of Keller Grundbau GmbH in year 1998, where he was responsible for all activities in Germany. In year 2000, he was then promoted to be the Managing Director of Keller Holding GmbH. He covered operational responsibility for Continental Europe, Middle East including Africa-Asian activities (CEMEA) in business development and introduction of advanced technologies and methods. In year 2003, he moved to Keller Group plc., London and became the Board Member. He was the Executive Director responsibility for CEMEA Division and later the Executive Director for Group Engineering & Operation, before he retired in year 2016. Since then, he is acting as Consulting Engineer Geotechnical engineering and operations.

Besides, he was also a lecturer at Technische Universität Darmstadt (since 2002), Chairman of friend's association of Geotechnical Institute Technical University Darmstadt (since 2006), and Chairman of the Board of the German Society of Geotechniques (since 2014).

Dr.-Ing. Wolfgang Sondermann had published his works (>100 publications) in national and international magazines on geotechnical engineering, risk management, new technologies and methods. He also contributed to the Geotechnical Engineering Handbook, Vol. 2, 8. Ed.: Ground Improvement Editor: K. Witt, Ernst & Sohn, 2016, the Ground Improvement, 3. Ed.: Ground Improvement, Editors: K. Kirsch, A. Bell, CRC Press, 2013, and the Asian Ground Improvement Handbook. In addition, he is the holder on different patents of inventions regarding geotechnical applications and devices.

No pre-registration required.

Geotechnical Society of Singapore, c/o CMA International Consultants Pte Ltd, 1 Liang Seah Street, #02-11 Liang Seah Place, Singapore 189022