

Geotechnical, Geological and Earthquake Engineering

Jian Chu
Sri P.R. Wardani
Atsushi Iizuka *Editors*

Geotechnical Predictions and Practice in Dealing with Geohazards

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Geotechnical Predictions and Practice in Dealing with Geohazards



Springer

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Preface

The 3rd International Conference on Geotechnical Engineering for Disaster Mitigation and Rehabilitation was held in Semarang, Indonesia, May 18–20, 2001. A One-Day International Symposium on Recent Advances in Geotechnical Engineering was also organized by the Conference Organizing Committee led by Prof. S.P.R. Wardani and the Technical Committee TC303 under the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE). This Symposium also marked the 40-year contributions of Professor Hideki Ohta in research *and development in the area of soil mechanics and geotechnical engineering*. Professor Ohta is a Professor of Research and Development Initiative at Chuo University, Japan. Before his retirement in 2009, he was a Professor at the Tokyo Institute of Technology (TIT). Prof. Ohta started his professional career in geotechnical engineering in 1971 at Kyoto University. He also worked at the University of Cambridge, Asian Institute of Technology, and Kanazawa University. He was the vice president (1999–2001) and later the president (2004–2006) of the Japanese Geotechnical Society. He has received many awards, including awards from the Japan Society of Civil Engineers (1971, 2002, and 2004), and awards from the Japanese Geotechnical Society (1986, 1991, 1999, and 2008). His major research interests include constitutive model of soils, deformation of soft clays, dam engineering, and rock slope stability. Professor Ohta is one of the key founders of TC303 (the TC39 then) and has been a sought-after keynote and invited speaker at international conferences.

The theme of the symposium was the recent advances in geotechnical predictions and practices dealing with geohazards. Fourteen invited speakers, including Prof. Ohta and a number of other leading world researchers, presented their latest research works at the symposium. This volume comprises the written version of the lectures presented at the symposium and several other invited contributions. The book contains 23 chapters and is divided into three sections: Geotechnical Aspects of Some Recent Disasters; Geotechnical Predictions; and Geotechnical Practices in Dealing with Geohazards. A prologue is also provided to share a glimpse of Prof. Hideki Ohta's life and achievements in the past 40 years. The recent earthquake disasters in Japan and a series of other disasters in the world

have again highlighted the need for more reliable geotechnical prediction, better methods for geotechnical design, particularly dealing with geohazards. It is hoped that this book will provide a timely review and summary of the recent advances in theories, analyses, and methods for geotechnical predictions and the most up-to-date practices in geotechnical engineering and particularly in dealing with geohazards.

We would like to take this opportunity to thank all the contributors for their valuable contributions as well as their time and patience. We want to thank Professor Ohta in particular for his considerable effort in reading through many of the chapters in this book. We also thank Hermine Vloemans of Springer for her professional handling of the publication process and her patience in waiting for the manuscripts to be fully completed.

Ames
Semarang
Kobe, Hyogo

Jian Chu
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A group photo of Prof. Hideki Ohta (in traditional Kazakhstan costume) with invited speakers and participants to the One-Day International Symposium

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