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PROCEEDING OF

*3rd International Conference on Geotechnical Engineering
combined with
9th Yearly Meeting of the Indonesian Society for Geotechnical Engineering*

GEOTECHNICAL ENGINEERING FOR DISASTER PREVENTION AND REHABILITATION

**Graha Santika Hotel
Semarang - Central Java - Indonesia
3 - 4 August 2005**

Organized by



**Diponegoro University
Indonesia**



**Department of Public Works
Indonesia**



**The Indonesian Society for
Geotechnical Engineering**

PREFACE

This conference is the third series in a series of Geotechnical Engineering Conference organized by Diponegoro University and Department of Public Works of the Republic of Indonesia. In this conference is combined with 9th Yearly meeting of the Indonesian Society for Geotechnical Engineering, member of the International Society for Soil Mechanics and Geotechnical Engineering. The theme of this conference is Geotechnical Engineering for Disaster Prevention and Rehabilitation.

The objectives of this conference are to gather experts from Indonesia and overseas to present the most up-to-date knowledge related to the theme of the conference, to seek their views on the best ways to carry out reconstruction, and to discuss the techniques that could be used for soil improvements and construction for road, infrastructure and coastal protections.

We received more than 70 abstracts and after process of reviewing the abstracts and the full papers eventually 50 papers from 14 countries (Australia, Belgium, China, Egypt, Germany, India, Indonesia, Iran, Japan, Malaysia, Singapore, Taiwan, Thailand, USA) are include in the proceeding. The paper are grouped under 5 topics covering slope; Properties, Geology and Risk; Ground Improvement, Seismic and Foundation.

This conference proceeding is compiled form ready manuscript provided by the author of the papers. It should be noted that the authors are solely responsible for the quality of the text and figure contain herein.

I would like to express my gratitude to the President of the Republic of Indonesia, the Minister of the Department of Public Works of the Republic of Indonesia, President of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), all members of the national and International conference organizing committee, Joint Working Group on Geotechnical Engineering for Disaster Mitigation and Rehabilitation (JWG-DMR) members, Department of Public Works of the Republic of Indonesia, Garuda Indonesia Airline, Suara Merdeka daily, and all sponsors for their support and their contribution towards the success of this conference.

I hope this proceeding will be a useful source of reference to all those in the field of Geotechnical Engineering.



Dr.Ir. (Mrs) SPR. Wardani MSc, MIEAust CPEng
Chairperson of the Conference

*3rd International Conference on Geotechnical Engineering
combined with
9th Yearly Meeting of the Indonesian Society for Geotechnical Engineering
(ISGE),
Member of the International Society for Soil Mechanics and Geotechnical
Engineering (ISSMGE)*

Geotechnical Engineering for Disaster Prevention and Rehabilitation

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- ✦ **Department of Public Works of the Republic of Indonesia**
- ✦ **The Indonesian Society for Geotechnical Engineering**

Supporting Organization :

- ✦ **The International Society for Soil Mechanics and Geotechnical Engineering
(ISSMGE)**
- ✦ **Centre for Soft Ground Engineering, National University of Singapore –
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- ✦ **Geotechnical Research Institute, Hohai University – China**
- ✦ **University College of Technology Tun Hussein Onn (KUITTHO) - Malaysia**
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(Minister of Public Works of The Republic of Indonesia)

☞ **H. Mardiyanto**
(Governor of Central Java Province)

☞ **Ir. H. Hendrianto N.**
*(Director General of Highway Construction & Maintenance,
Department of Public Works - Indonesia)*

For their support and their contribution towards the success of this conference.

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