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Proceedings

20th SOUTHEAST ASIAN GEOTECHNICAL CONFERENCE
3rd AGSSEA CONFERENCE
In conjunction with
22nd HATTI ANNUAL SCIENTIFIC MEETING



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20th SOUTHEAST ASIAN GEOTECHNICAL CONFERENCE
3rd AGSSEA CONFERENCE

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22nd HATTI ANNUAL SCIENTIFIC MEETING

“Geotechnical Challenge for Mega Infrastructures”

Proceedings

Organized by :



AGSSEA
ASSOCIATION OF GEOTECHNICAL
SOCIETIES IN SOUTHEAST ASIA



Pullman Hotel - Jakarta, 6 - 7 November 2018

Supported by :



PT. Promisco Sinergi Indonesia (PT. PSI) adalah perusahaan yang bergerak di bidang konsultasi geoteknik dan geoteknik kegempaan, penyelidikan tanah, monitoring, kursus-kursus yang berhubungan dengan bidang geoteknik, dan pelatihan-pelatihan software geoteknik. PT. PSI didirikan oleh para tenaga ahli yang telah berpengalaman di bidang geoteknik lebih dari 16 tahun dan umumnya telah bersertifikasi sebagai ahli geoteknik profesional utama (G-2) dan madya (G-1).

Visi Perusahaan

Menjadi perusahaan konsultan di bidang geoteknik yang terbaik di Indonesia dan berstandar internasional

Misi Perusahaan

Membangun perusahaan yang dapat menyejahterakan pada tenaga ahli dan karyawan dengan berlandaskan pada hal-hal berikut :

- ✓ Standar etika profesional dan bisnis yang baik
- ✓ Meningkatkan kompetensi tenaga ahli dalam bidang geoteknik
- ✓ Senantiasa berusaha meningkatkan kualitas perusahaan

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BUSINESS OVERVIEW

PT. Geotekindo is a professional entity specializing in geotechnical investigation, design, research, construction and consultancy. Our parent company, Geoharbour Group (www.geoharbour.com), is a chief editor of China Standard of Reclamation Soil Treatment and a director member of Technical Committee of China Soft Soil Treatment. So far we have developed into a complex entity with business of dredging, road and bridge construction, foundation engineering and jetty construction.

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Dubai, UEA



THE WORLD ISLANDS
(THE HEART OF EUROPE)
Location: Dubai, UEA
Method: Vibro-compaction, Sheet Piling

Indonesia



PALEMBANG INDRALAYA
TOLL ROAD
Location: South Sumatra, Indonesia
Method: Vacuum Preloading

Vietnam



FORMOSA HA TINH STEEL MILL
Location : Ky Anh Ha Tinh, Vietnam
Method : Various Method

Shanghai, China



PUDONG INTERNATIONAL
AIRPORT
Location : Shanghai, China
Method : HVDM

Indonesia



GOLF ISLAND
Location : North Jakarta,
Indonesia
Method : Dynamic Compaction
and Vibroflotation

“Geotechnical Challenge for Mega Infrastructures”

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INDONESIAN SOCIETY FOR GEOTECHNICAL ENGINEERING (ISGE)
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PREFACE

Assalamu'alaikum Wr. Wb.

The Association of Geotechnical Societies in Southeast Asia (AGSSEA) consists of the Southeast Asian Geotechnical Society (SEAGS), Vietnamese Society for Soil Mechanics and Geotechnical Engineering (VSSMGE), Hong Kong Geotechnical Society (HKGES), Geotechnical Society of Singapore (GeoSS), Thai Geotechnical Society (TGS), Chinese Taipei Geotechnical Society (CTGS), Indonesian Society for Geotechnical Engineering (HATTI) and Malaysian Geotechnical Society (MGS). It was decided at the General Committee meeting of SEAGS and AGSSEA on 31 May 2016 at Kuala Lumpur that the 20th Southeast Asian Geotechnical Conference and the 3rd AGSSEA Conference (20SEAGC-3AGSSEA Conference) is to be held at Pullman Hotel in Jakarta, from 6-7 November 2018. This is the first time in history of SEAGS that the conference is held at Jakarta, Indonesia, therefore the conference is also conjunction with 22nd Annual Indonesian National Conference on Geotechnical Engineering.

The theme of 20SEAGC-3AGSSEA Conference is "Geotechnical Challenge for Mega Infrastructure", to indicate how mega infrastructure rapidly constructed by Indonesian Government. This conference will cover the wide range topics:

1. Foundation and its problem
2. Deep excavation, basement and tunnels
3. Unsaturated soil mechanics,
4. Sedimentary and residual soils
5. Soft soils and marine foundation
6. Geotechnical and earthquake engineering
7. Geotechnical instrumentation
8. Ground subsidence and sea-water intrusion
9. Vibration and earthquake effect to the structure
10. Soil improvement
11. Slope stability
12. Geo-environmental engineering
13. Finite element method

There will be special keynote address delivered by Ministry of Public Work and Housing of Indonesia, 11 keynote lectures and 84 technical papers to be presented in parallel sessions.

Deep condolences for all victims during the Lombok - Palu - Donggala earthquakes. Liquefaction, flows and deep slide shown as phenomenon during the disaster.

Special gratitude to Menard as main sponsored, Geotekindo and Bauer as co-sponsored and all sponsored who participate in this conference.

Wassalamu'alaikum Wr. Wb.
Jakarta, 6 November 2018

Dr. Pintor T. Simatupang
Conference Chairman

MESSAGE FROM PRESIDENT OF INDONESIAN SOCIETY FOR GEOTECHNICAL ENGINEERING (ISGE)

Dear our honorable guest,

Dr. Basoeki Hadimuljono-Minister of Public Works and Public Housing of the Republic of Indonesia, Prof. Charles Ng - President of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), honorable guests from South East Asian Geotechnical Society (SEAGS) and Association of Geotechnical Societies in South East Asia (AGSSEA), board members of the Indonesian Society for Geotechnical Engineering (ISGE), Chairman of the Engineering Commission of the Indonesian Academy of Sciences, and all Participants; Welcome to our International Conference. This year we held the 20th SEAGSC together with 3rd AGSSEAC in conjunction with our 22nd ISGE annual conference.

“Geotechnical Challenge for Mega Infrastructure” become our theme to answer the challenge we face together from current rapid infrastructure construction. Many geotechnical construction was built in accordance with good soil mechanics and geotechnical understanding, but we need more than that. We need all stages in construction industry can work together, from theory, practical construction, detailing works, comprehensive supervision, and of course the quality assurance process. We need all parties to collaborate together, to move fast forward without no chance for mistake nor failure. No time for failure, ISGE/HATTI collaborate with all parties (national and international) try to ensure there is only one way, and its forward moving.

We understand that there is still many holes in our construction process, not only cause by man made construction but also by the mother of nature. We saw how horrible the Donggala – Palu earthquake last month and we mourn for the caused; but as engineer, we stand; we seek the cause, we learn, we give suggestion and the more important, we stand still, not only as engineers but also as a nation. We stand for the humanity-our pray for them.

Allow us to convey our gratitude to Menard, our main sponsored, Geotekindo and Bauer as our co-sponsored and all sponsored who participate in this event. Also to all speakers, writers, participants, especially to all committee who works to their best for the success of this event.

Last but not least, hopefully this event will brings good and new point of view seeing the geotechnical engineering. Please enjoy the event.

Geotechnical in our heart!!!

Jakarta, 6 November 2018
Indonesian Society for Geotechnical Engineering

Prof. Ir. Masyhur Irsyam, MSCE., Ph.D.
President

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97. Increasing geotechnical challenges in the design and construction planning
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