

Proceedings of the

19th Southeast Asian Geotechnical Conference & 2nd AGSSEA Conference

31 May – 3 June 2016

Dorsett Grand Subang

Subang Jaya, Malaysia

DEEP EXCAVATION AND GROUND IMPROVEMENT

Organized by:



Southeast Asian Geotechnical Society

AGSSEA

Association of Geotechnical Societies In Southeast Asia.



Malaysian Geotechnical Society



The Institution of Engineers, Malaysia





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Editors

Swee Huat Chan Teik Aun Ooi Wen Hui Ting Sin Fatt Chan Dominic Ong

Preface

The Southeast Asian Geotechnical Society (SEAGS) was founded by Dr. Za-Chieh Moh in 1967 at AIT Bangkok. The Association of Geotechnical Societies in Southeast Asia (AGSSEA) was inaugurated in 2007 and initiated also by Dr. Za-Chieh Moh at the 16 SEAGC held in Kuala Lumpur in May 2007.

The Association of Geotechnical Societies in Southeast Asia (AGSSEA) consist of the Southeast Asian Geotechnical Society (SEAGS), Vietnamese Society of Soil Mechanics and Geotechnical Engineering (VSSGE), Hong Kong Geotechnical Society (HGSE), Geotechnical Society of Singapore (GEOSS), Thai Geotechnical Society Engineering (TGS), Chinese Taipei Geotechnical Society (CTGS), Indonesia Geotechnical Society (HATTI) and Malaysia Geotechnical Society (MGS). It was decided at the 17 SEAGC in Taipei in 2010 that the 18 SEAGC-1AGSSEA Conference was to be held in Singapore in 2013.

The Singapore Conference was a great success with 350 participants. At the Singapore Conference, VSSMGE successfully bid to host the 19th SEAGC-2AGSSEA to be held in 2016. Unfortunately in October 2014, Prof. Tien, the VSSMGE President pass away suddenly. VSSMGE decided to withdraw the offer to host the conference and MGS successfully bid to host the conference with the same timeline. Consequently the 19th Southeast Asian Geotechnical Conference 2nd Association of Geotechnical Societies in Southeast Asia Conference (SEAGC 2016) is to be held at Dorsett Grand Subang in Subang Jaya, Selangor Darul Ehsan, Malaysia from 31 May – 3 June 2016. This is the fifth time in about fifty years of the history of SEAGS that the Conference is held in Malaysia.

The objectives of the Conference are:

- > To promote good liaison and cooperation with member countries in SEAGS and its relationship with other international and related societies in the exchange of information for tackling common areas of interest in Geotechnical engineering.
- ➤ To provide an opportunity for engineers to publish their works and networks with others.
- ➤ To provide an excellent opportunity for participants who are members of engineering profession to meet socially and exchange information and ideas pertaining to the profession.

The theme of the SEAGC 2016 is Deep Excavation and Ground Improvement. The technical sessions will cover the following topics:

- Design Analysis and Modelling
- Embankments and Dams
- Engineering Geology and Rock Mechanics
- Field Testing and Performance Monitoring
- Ground Improvement and Stabilization
- Shallow and Deep Foundations
- Slope stability, Excavations and retaining Structures
- Soil Characterization and Properties
- TC211 Ground Improvement
- TC217 Land Reclamation

• Tunnelling and Underground Space Development

There will be Opening Keynote Address, Chin Fung Kee Lecture, Za-Chieh Moh Lecture, SL Lee Lecture with 10 Special Lectures and 162 contributed papers to be presented in 4 parallel sessions.

The Southeast Asian Geotechnical Society (SEAGS) will be celebrating its 50th Anniversary in 2017 in Bangkok. A Special issue of the SEAGS-AGSSEA Journal will be published in 2017.

Editors

Swee Huat Chan Teik Aun Ooi Wen Hui Ting Sin Fatt Chan Dominic Ong

> Kuala Lumpur May 2016



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Office Bearer of the SEAGS

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Malaysian Geotechnical Society (MGS)

The Institution of Engineers, Malaysia Geotechnical Engineering Technical Division (IEM GETD)

Acknowledgement

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Recent Advances in Pile Testing by K. Ishihara

SL Lee Lecture

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Za-Chieh Moh Lecture

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Advancements in Rail Track Geotechnology at Increased Speeds and Axle Loads by Buddhima Indraratna, Sanjay Nimbalkar and Cholachat Rujikiatkamjorn (SEAGS)

A Brief Perspective on Forensic Geotechnics by Yee Thien Seng (Malaysia)

Modelling the Effects of Strain- and Path-dependent Soil Stiffness on Soil-Structure Interaction Problems: An Engineer's Perspective

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The Unwanted Effect of Dewatering for Excavations and Its Counter Measures by Paulus P. Rahardjo and Aris Handoko

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(Thailand)

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Ooi Lean Hock

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TC211

TC217

Technical Papers

- 1. Ground Improvements
- 2. Field Testing & Performance Monitoring
- 3. Excavation & Retaining Structures
- 4. Geosynthetics & Geo-Products 1
- 4. Soil Characterization and Properties

- 5. **Design Anlayses & Modelling**
- 6. **Shallow & Deep Foundations**
- 7. Engineering Geology & Rock Mechanics
- 8. Tunnelling & Underground Space Development
- 9. Slopes, Embankments & Dams

A Brief History of the Southeast Asian Geotechnical Society (SEAGS) and Association of Geotechnical Societies of Southeast Asia (AGSSEA)

This is an attempt to combine the history of SEAGS, founded in 1967 and exists to date and AGSSEA formed in 2007. The Southeast Asian Geotechnical Society was founded in 1967 by Dr. Za-Chieh Moh as a regional society to Cover Thailand, Malaysia, Singapore, Philipines, Hong Kong, Indonesia and Taiwan. It is affiliated to the International Society for Soil Mechanics and Foundation Engineering (ISSMFE), The International Association of Engineering Geology (IAEG) and the International Society of Rock Mechanics (ISRM). The Association of Geotechnical Societies of Southeast Asia (AGSSEA) had its origin at the 16th Southeast Asian Geotechnical Conference (16SEAGC) held in Kuala Lumpur in 2007. Currently it has eight national societies member. They are the Southeast Asian Geotechnical Society (SEAGS), Vietnamese Society of Soil Mechanics and Geotechnical Engineering (VSSGE), Hong Kong Geotechnical Society (HGSE), Geotechnical Society of Singapore (GEOSS), Thai Geotechnical Society Engineering (TGS), Chinese Taipei Geotechnical Society (CTGS), Indonesia Geotechnical Society (HATTI) and Malaysia Geotechnical Society (MGS). The current Chairman is Prof. Yong Kwet Yew from the National University of Singapore (NUS). Combining the history of SEAGS which has been so active from time of inception todate with AGSSEA is not an easy task. It was thought that SEAGS history will be presented first from 1967 to 2007 till the AGSSEA is formed.

SEAGS-AGSSEA Partnership





SEAGS and the Asian Institute of Technology



From the very inception of the Society, the Secretariat has been located at the <u>Asian Institute</u> of <u>Technology</u> (AIT) in Bangkok where much of the **geotechnical engineering research** in Thailand has been conducted.

International Affiliations



The objectives of the Society when it was created in 1967 by Dr. Za Chieh Moh was to promote cooperation among engineers, geologists and other scientists in Southeast Asia for the advancement of knowledge in **geotechnical engineering**. This has clearly been fulfilled over the years through periodic meetings within the region for discussion of geotechnical engineering topics, geotechnical engineering conferences, symposia, seminars and lectures held in the region, publication of a journal which contains papers of interest to geotechnical engineers, and collaboration with the International Society for Soil Mechanics and Foundation/ Geotechnical Engineering (ISSMFE/ISSMGE), the International Association of Engineering Geology (IAEG), the International Society for Rock Mechanics (ISRM) and such other bodies and societies as appropriate.

The President & past Presidents of the Society

Dr. Za-Chieh Moh (1967 – 1973)

Prof. Chin Fung Kee (1973 – 1975)

Prof. Peter Lumb (1975 – 1977)

Dr. Tan Swan Beng (1977 – 1980)

Dr. E. W. Brand (1980 – 1983)

Dr. Ting Wei Hui (1983 – 1985)

Prof. A. S. Balasubramaniam (1985 – 1987)

Prof. Seng Lip Lee (1987 – 1990)

Dr. Chin Der Ou (1990 – 1993)

Dr. Ooi Teik Aun (1993 – 1996)

Dr. Surachat Sambhandharaksa (1996 – 1998)

Dr. John C.C. Li (1998 – 2001)

Prof. Kwet Yew Yong (2001 – 2007)

Dr. Chung Tien Chin(2007 – 2010)

Dr. Ooi Teik Aun (2010 – present)

The Secretary General & past Secretary-General of the Society

Dr. Robert Mackey (1967 – 1970)

Dr. John Nelson (1970 – 1973)

Prof. A.S. Balasubramaniam (1972 – 2000)

Prof. D.T. Bergado (2000 – 2013)

Dr. Noppadol Phienwej (2013- present)

<u>Southeast Asian Conferences (1967 – present)</u>

One of the most important activities of the Society is the series of regional conferences held once every two or three years. These conferences are held in the member countries of the Society and offer a unique opportunity for the geotechnical engineers in the region, as well as those from outside, to meet and exchange ideas.

Southeast Asian Conferences of the Society have been held as follows:

1st Conference in Bangkok (1967)

Dr. Za Chieh Moh served as Chairman of the Organizing Committee

2nd Conference in Singapore (1970)

A. Vijiaratnam and Chan Chee Wah served as Chairman and Co Chairman respectively. Mr. Michael Lee was the Secretary.

3rd Conference in Hong Kong (1972)

Prof. Peter Lumb served as Chairman of the Organizing Committee

4th Conference in Kuala Lumpur (1975)

Prof. Chin Fung Kee and Ooi Teik Aun were respectively Chairman and Secretary of the Organizing Committee.

5th Conference in Bangkok (1977)

Dr. E.W. Brand and Prof. A.S. Balasubramaniam served as Chairman and Secretary of the Organizing Committee respectively

6th Conference in Taipei (1980)

Dr. ZaChieh Moh served as Chairman of the Conference Committee

7th Conference in Hong Kong (1982)

Mr. Stanley Elliott served as Chairman of the Organizing Committee

8th Conference in Kuala Lumpur (1985)

Dr. Ting Wen Hui and Dr. C.T. Toh served respectively as Chairman and Secretary of the Conference Committee.

9th Conference in Bangkok (1987)

Prof. A.S. Balasubramaniam (Chairman) Dr. N. Phienwej, J. Kuwano, G. Rantucci, P. Nutalaya

10th Conference in Taipei (1990)

B.P.C. Chi (Chairman), Dr. C.D. Ou (SecretaryGeneral)

11th Conference in Singapore (1993)

Prof. S.L. Lee (Chairman), Dr. K.Y. Yong (Secretary)

12th Conference in Kuala Lumpur (1996)

Dr. Ooi Teik Aun (Chairman), J.T.F. Wong (Secretary)

13th Conference in Taipei (1998)

Dr. Za Chieh Moh (Chairman)

14th Conference in Hong Kong (2001)

Dr. A. Malone (Chairman)

15th Conference in Bangkok (2004)

Dr. S. Sambhandaraksa (Chairman), Dr. T. Boonyatee (Secretary)

16th Conference in Kuala Lumpur (2007)

Dr. Ooi Teik Aun (Chairman), Yee Yew Weng (Secretary)

17th Conference in Taipei, Taiwan (2010)

Dr. John Chien-Chung Li (Chairman)

18th Conference in Singapore & Inaugural AGSSEA Conference (1AGSSEAC) (2013)Prof C F Leung (Chairman)

19th Conference in Malaysia & 2nd AGSSEA Conference (2AGSSEAC) (2016) Dr. Sin Fatt Chan (Chairman)

<u>Asian Regional Conferences (1967 – 2015)</u>

Asian Regional Conferences are held once in four years.

Dr. Za Chieh Moh and Dr. E.W. Brand actively participated in the **3rd Asian Regional Conference held in Haifa, Israel in 1967**.

The **4th Asian Regional Conference** was hosted by the Society in Bangkok in 1971. It was one of the most successful Asian Regional Conferences and was attended by over 500 participants.

Drs. Za Chieh Moh, E.W. Brand and A.S. Balasubramaniam attended the **5thAsian Regional** Conference held in **1975** in Bangalore, India.

The **6th Asian Regional Conference** on Soil Mechanics and Foundation Engineering was held in Singapore in July 1979. Dr. Tan Swan Beng served as Chairman of the Organizing Committee.

Prof. Peter Lumb and Prof. A.S. Balasubramaniam attended the **7th Asian Regional Conference** on Soil Mechanics and Foundation Engineering held in Haifa, Israel in 1983. Representatives from SEAGS were also sent to attend 8th Asian Regional Conference held in Kyoto, Japan in 1988.

Subsequent **Asian Regional Conference** (9th **ARC**) hosted by SEAGS-AGSSEA were held Bangkok, Thailand in 1991. Other Asian regional conferences include 10th in Beijing, China in 1995; 11th in Seoul, Korea in 2000; 12th in Singapore in 2003; 13th in Kolkata, India in 2007; 14th in Hong Kong 2011; and 15th in Fukuoka, Japan in 2015. Several prominent personalities of SEAGS have participated/or will participate in these Regional Conferences. Special mention refers to the **Asian Regional Conference in 1991** which was held in Bangkok with Prof. A.S. Balasubramaniam as Chairman of the Organizing Committee and with SEAGS as the host

Society. The next ARC was held in Singapore in 2003 with SEAGS once again as the host Society. This ARC was actively organized by Prof. S. L. Lee, Prof. K. Y. Yong, Assoc. Prof. C.F. Leung, and many other prominent SEAGS members in Singapore.

SEAGS participation at International Conferences in the past

The Society members also have participated actively in the International Conferences organized by ISSMFE/ISSMGE.

Dr. Za Chieh Moh, Dr. E.W. Brand and Dr. John D. Nelson attended the 7th International Conference in Mexico City in 1969. Dr. Za Chieh Moh was also the Chairman of a Specialty Session on Lateritic Soils. The two volume Proceedings of that session continue as a useful reference on the engineering behaviour of laterites.

Society members also participated in the International Conference held in Moscow in 1973. Prof. Chin Fung Kee, Dr. Za Chieh Moh, Dr. E.W. Brand and Dr. John D. Nelson attended and presented papers at that important conference.

In the 9th ICSMFE held in Tokyo in 1977, Dr. Za Chieh Moh served as the Chairman of the Specialty Session on Geotechnical Engineering and Environmental Control. Prof. Peter Lumb and Dr. A.S. Balasubramaniam were panelists in the Main Session on Slope Stability and Stress Deformation of Soils.

In the 10th ICSMFE held in Stockholm in 1981, Dr. Za Chieh Moh served as Chairman of the Session on Environmental Control and Dr. A.S. Balasubramaniam and Dr. E.W. Brand served as panelists. Dr. E.W. Brand will serve as a Theme Leader in the forthcoming San Francisco Conference in 1985.

Dr. Za Chieh Moh, the founder President of the Society served as the Vice President of ISSMFE for the period 1969 to 1973. The Society is fortunate to have Prof. Chin Fung Kee serving as the Vice President of ISSMFE from 1981 until the San Francisco Conference in 1985. Prof. A.S. Balasubramaniam served as Vice President for IAEG from 1978-1982 and Vice President for Asia of ISSMGE from 1994 -1997. Dr. Ou Chin Der served as the Vice President of International Society of Rock Mechanics from 1995 to 1999. The valuable contributions received by the Society from these Vice Presidents are gratefully acknowledged.

SEAGS participation at Executive Committee or Council meetings in the past

The Southeast Asian Geotechnical Society has always valued the attendance of its office bearers at the **Executive Committee meetings of ISSMFE, IAEG and ISRM**.

Attendance at Executive Committee meetings was as follows:

7th ICSMFE in Mexico (1969)

Dr. ZaChieh Moh Dr. John D. Nelson

8th ICSMFE in Moscow (1973)

Dr. ZaChieh Moh Dr. John D. Nelson

Istanbul Conference (1975)

Dr. ZaChieh Moh

9th ICSMFE in Tokyo (1977)

Prof. Peter Lumb

Prof. A.S. Balasubramaniam

3rd IAEG Congress and Council (1978)

Prof. A.S. Balasubramaniam Meeting in Madrid

4th ISRM Conference and Council (1979)

Prof. A.S. Balasubramaniam Meeting in Montreux, Switzerland

10th ICSMFE in Stockholm (1981)

Dr. E.W. Brand Prof. A.S. Balasubramaniam

4th IAEG Congress and Council (1983)

Dr. E.W. Brand Meeting in New Delhi, India

5th ISRM Conference and Council (1983)

Prof. Yudhbir Meeting in Melbourne, Australia

11th ICSMFE in San Francisco (1985)

Dr. Z.C. Moh

Prof. A.S. Balasubramaniam

12th ICSMFE in Rio de Janiero (1989)

Dr. Z.C. Moh

Prof. A.S. Balasubramaniam

13th ICSMFE in New Delhi (1994)

Dr. Z.C. Moh

Prof. K.Y. Yong

14th ICSMFE in Hamburg (1997)

Dr. Z.C. Moh Dr. T.A. Ooi

15th ICSMGE in Istanbul (2001)

Dr. Z.C. Moh Dr. John Li

ISSMGE council meeting in Prague, Czech Republic (2003)

Ir. Sek Kwan Tang Prof. D.T. Bergado

16th ICSMGE and ISSMGE council meeting in Osaka (2005)

Prof. K.Y. Yong Prof. D.T. Bergado

ISSMGE Council Meeting, Brisbane, Australia (2007)

Dr. Chung-Tien Chin

Prof. A.S. Balasubramaniam

17th ICSMGE and ISSMGE council meeting in Alexandria, Egypt (2009)

Dr. Chung-Tien Chin Prof. D.T. Bergado

18th ICSMGE and ISSMGE council meeting in Paris, France (2013)

Dr. Teik Aun Ooi

19th ICSMGE in Seoul, Korea (2017)

Dr. Za Chieh Moh attended the Executive Committee meeting in Tokyo in 1977 as the Vice President of ISSMFE for Asia and the Stockholm meeting in 1981 as the Chairman of an ISSMFE Subcommittee. Prof. Chin Fung Kee has attended several of the Executive Committee meetings of ISSMFE since he became the Vice President of ISSMFE for Asia in 1981. The expenses related to the attendance of the Executive Committee meetings are not borne by our Society nor ISSMFE, IAEG or ISRM.

In addition to the active participation of the Society in the Regional and International Conferences, Society members also have taken an active role in the work of the various committee of ISSMFE. Among various committee that the Southeast Asian Geotechnical Society has sponsored is the ISSMFE Technical Committee on Sampling and Testing of Residual Soils. This covered the period 1981 to 1985. The Chairman and Secretary of this

Technical Committee were Dr. E.W. Brand and Mr. H.B. Phillipson respectively, both of the Geotechnical Control Office, Hong Kong. The main work of the committee was to publish a volume entitled Sampling and Testing of Residual Soils – A Review of International Practice. This contains state-of-the-art reports from 18 countries and has proven to be a valuable reference for engineers concerned with residual soils.

Symposia and courses (1977 – 2015)

In addition to the regular <u>Society conferences</u>, **symposia** and **courses**, a number of interesting topics have been organized by <u>AIT</u> in association with the Society. These symposia have now become very popular because of their direct relevance and usefulness to practicing engineers.

A list of these symposia is given below:

- 1. International Symposium on Soft Clay in 1977
- 2. Symposium on Geotechnical Aspects of Highway Engineering in 1979
- 3. International Conference on Engineering for Protection from Natural Disasters in January 1980
- 4. International Symposium on Large Dams in December 1980
- 5. Symposium on Modern Developments in Underground Works in May 1981
- 6. Symposium and Short Course on Coastal and Offshore Structures in December 1981
- 7. Symposium and Short Course on Soil and Rock Improvements in November-December 1982
- 8. Symposium and Short Course on Laboratory and Field Tests and Analysis of Geotechnical Problems in December 1983
- 9. Symposium and Specialty Session on Mass and Material Transportation in December 1984.
- 10. Environmental Geotechnics and Problematic Soils and Rocks (1985)
- 11. Computer Aided Design and Physical Modelling Using Centrifuge (1986)
- 12. Ninth Southeast Asian Geotechnical Conference (1987)
- 13. Restoration and Maintenance of Infrastructures and Historical Monuments (1988)
- 14. Developments in Laboratory and Field Tests in Geotechnical Engineering Practice (1989)
- 15. Embankments, Excavations and Buried Structures (1990)
- 16. First Asian Young Geotechnical Conference(1991)
- 17. Ninth Asian Regional Conference on Soil Mechanics and Foundation Engineering (1991)
- 18. Symposium on Prediction Versus Performance and Workshops on Computer Applications and Ground Improvements (1992)
- 19. International Short Course on Evaluation of Design Parameters From Laboratory Tests (1993)
- 20. Training Course on Construction Quality Control for Sea Dykes(1993)
- 21. Symposium on Developments in Geotechnical Engineering (From Harvard to New Delhi 1936 1994 (1994)
- 22. International Conference on Deep Foundations and Ground Improvements (1994)
- 23. Southeast Asian Symposium on Tunnelling and Underground Space Development (1995)
- 24. International Course on Natural Hazards and Environmental Geotechnics (1995)

- 25. International Course on Numerical Analysis in Geotechnical Engineering (1996)
- 26. International Course on Estimation of Design Parameters for Soils and Rocks (1996)
- 27. International Course on Problematic Soils and Ground Improvement Techniques (1996)
- 28. International Course on Advanced Geotechnical Analysis (1997)
- 29. Geotechnical Hazards and Dam Construction (1997)
- 30. 30th Year Anniversary Symposium on Deep Foundations, Excavations, Ground Improvements and Tunneling, Bangkok, Thailand (1997)
- 31. Civil and Environmental Engineering Conference New Frontiers & Challenges Conference, Bangkok, Thailand (1999)
- 32. GeotechYear 2000 Conference, Bangkok, Thailand (2000)
- 33. Symposium on Soft Ground Improvement and Geosynthetic Applications, 22-23 November, Bangkok, Thailand (2001)
- 34. International Seminar on Geoenvironmental Engineering: Assessment and Remediation of Contaminated Sites (2002)
- 35. International Symposium and ShortCourse on Soil/Ground Improvement and Geosynthetics in Waste Containment Applications (2003)
- 36. Fourth Regional Symposium on Infrastructure Development in Civil Engineering (RSID4), 3-5 April, Bangkok, Thailand (2003)
- 37. Au Geo Pile/Beau Drain System and Geosynthetics Applications Seminar (2004)
- 38. Pre-Conference Short Course on Dam Safety Risk Assessment (2004)
- 39. 15th Southeast Asian Geotechnical Conference (2004)
- 40. International Symposium on Tsunami Reconstruction with Geosynthetics (2005)
- 41. International Symposium on Geotechnical Aspects of Second Bangkok International Airport (2006)
- 42. International Symposium on Engineering, Ground Improvement and Geosynthetics for Human Security and Environmental Preservation (2007)
- 43. International Symposium on Geotechnical Engineering, Ground Improvement, and Geosynthetics for Sustainable Mitigation and Adaptation to Climate Change including Global Warming (2009)
- 44. International Symposium, Exhibition, and Short Course on Geotechnical and Geosynthetics Engineering: Challenges and Opportunities on Climate Change (2010)

The Southeast Asian Geotechnical Society founded in 1967 by Dr. Za-Chieh Moh has indeed made very significant contributions to the development of geotechnical engineering in Southeast Asia and elsewhere. This, of course, could not have been achieved without the hard work and generous efforts put forward by our members, supporters and participants of conferences, symposia and short courses. Among these, the contributions from the President and the Past President and General Committee members are gratefully acknowledged. Today the Southeast Asia Geotechnical Society (SEAGS) is a regional society with AGSSEA covering Thailand, Hong Kong, Malaysia, Singapore, Vietnam, Taiwan and Indonesia. It has been generally accepted that it is advantageous to form a Federation of Southeast Asian Geotechnical Societies so as to include those members who have left SEAGS to join ISSMGE as directs members. In this way they can continue to work closely with the SEAGS in matters of common interest and the geotechnical development, advancement and achievements of geotechnical engineering in the Southeast Asian region.

Association of Geotechnical Societies of Southeast Asia (AGSSEA)

The Association of Geotechnical Societies in Southeast Asia (AGSSEA) had its origin at the 16th Southeast Asian Geotechnical Conference (16SEAGC) held in Kuala Lumpur in May 2007. Dr. Ooi Teik Aun was elected Protem Chairman and subsequently elected Chairman at the inaugural meeting the same year. Dr. Za-Chieh Moh was elected Honorary Founding Chairman. Currently, it has eight national member societies.

They are the Southeast Asian Geotechnical Society (SEAGS), Vietnam 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 Geotechnical Society (HATTI) and Malaysian Geotechnical Society (MGS). The current Chairman is Prof. Yong Kwet Yew from the National University of Singapore (NUS).

The founding President of SEAGS, Dr. Za-Chieh Moh has sensed the timing and mooted the idea of setting up a Federation of Geotechnical Societies in Southeast Asia. When Hong Kong became the direct ISSMGE member, he foresaw more will follow suit and conveyed a vision for the promotion of cooperation among the national geotechnical societies in the region for the continued advancement of knowledge in geotechnical engineering and to provide necessary assistance to member societies with limited members.

The inaugural meeting of AGSSEA was held on 5 December 2007 at The Institution of Engineers, Malaysia (IEM). The draft statutes of AGSSEA were tabled, debated and accepted. Membership is opened to any professional society or institution engaged or otherwise actively interested in geotechnical engineering or related fields.

The objectives are:

- i. To arrange for periodic local meetings within the region for the discussion of geotechnical topics in cooperation with the member societies.
- ii. to arrange for geotechnical conferences, symposia, seminars and lectures to be held in the region jointly with one or more member societies; and
- iii. to publish a technical journal, in English, which shall contain papers of interest to geotechnical engineers.

Since its inception in 2007, AGSSEA has organized many meetings to plan, discuss and coordinate the implementation of various activities. It has organized conferences, short courses, seminars, public lectures and touring lectures given by renowned speakers. AGSSEA has supported many regional conferences and symposia. The EI and SCI "Geotechnical Engineering" journal is now jointly published by AGSSEA and SEAGS. The AGSSEA-SEAGS Newsletters are published on a regular basis. AGSSEA has its own website at www.agssea.com where journal papers, newsletters, notices, etc. can be downloaded.

The inaugural AGSSEA Geotechnical Conference under the joint "18th Southeast Asian Geotechnical Conference (18SEAGC) & Inaugural AGSSEA Conference (1AGSSEAC)" was held in Singapore in May 2013. The 19SEAGC – 2AGSSEAC is scheduled to be held in May-June 2016 in Kuala Lumpur. It is anticipated that more than 400 participants will be attending this conference.

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