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TECHNICAL EXHIBITION

A comprehensive technical exhibition for ground improvement and geosynthetics as applied to disaster control, mitigation and rehabilitation will be organized at the venue of the Symposium which is to be announced in due course. For booking, please contact the Conference Secretariat.

Contact Information

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REGISTRATION

The Registration Fees which covers the Symposium Proceedings, Lunch and Coffee Breaks are as follows:

| | |
|----------------------------|------------|
| Foreign Participants | US\$ 300 |
| IGS/AITAA member (foreign) | US\$ 100 |
| Thai Participants | Baht 3,000 |
| IGS/AITAA member (local) | Baht 2,500 |

Registration Form

Name: _____

Title of Paper _____

Mailing Address: _____

Telephone: _____ Facsimile: _____

Email: _____

Method of payment:

Bank Transfer (Add 3%)

*Account Name: *Asian Institute of Technology*

*Account Number: *359 - 3 - 00001 - 2*

*Bank Address: *Siam Commercial Bank, Klong Luang Branch
AIT Campus, Klong Luang
Pathumthani 12120, Thailand*

American Express (include 4-digit personal code)

Visa Card *Master Card*

Amount to be Charged (Add 5%): _____

Card Number: _____

Expiry Date: _____

Cardholder's Name: _____

Cardholder's Signature: _____

Payment in favor of ACSIG/AIT

IMPORTANT DATES

Deadline of Abstract Submission: **31 May 2009**

Notification of Acceptance: **31 July 2009**

Deadline of Camera-Ready Papers: **30 September 2009**

International Symposium

on

Geotechnical Engineering, Ground Improvement,
and Geosynthetics for
Sustainable Mitigation and Adaptation to
Climate Change including Global Warming

2 to 3 December 2009



Bangkok, Thailand

Organized by



with the support of
IGS



INTRODUCTION

During the recent past, the intensity of torrential rainfall and its subsequent destructive influence on human community has become severe and unpredictable due to climate change including global warming. Major water related hazards in the soil slopes with weak geological conditions are sediment-related hazards or debris flows that initiate from rain-triggered landslide, massive slope failure or soil erosion or simply remobilization of deposited materials on high-gradient rainfall run-off channel beds.

The effect of climate change including global warming, however, is not only limited in causing landslide disasters with an increased frequency but also in increasing the frequency of occurrence of a variety of natural disasters. The intergovernmental panel on climate change (IPCC) reports that residences of many more millions of people are projected to be flooded every year through the 2080s because of rising sea level. These, densely populated and low-lying areas where adaptive capacity is insufficient, and which are already under threat owing to tropical storms, land subsidence, river bank and coastal erosion, are at an increased risk. Moreover, recent news items, in support of the above IPCC reporting, has identified that insurance companies blaming bad weather slashing down their profit forecasts by millions of dollars. Consequently, the insurance companies have been forced to raise the insurance premium to recoup their losses.

Recent technological advancements in general and those particularly in the areas of Geotechnical Engineering, Ground Improvement together with Geosynthetic Engineering have been contributing greatly in undertaking scientific and systematic methodologies for assessing the risk associated with natural hazards of all kinds as well as the associated sustainable mitigation and adaptation strategies. In the interest of sharing the advancements in the state-of-the-art, and as a follow up to the previous International Symposium on Geotechnical Engineering, Ground Improvement and Geosynthetics for Human Security and Environmental Preservation held in December 2007, an International Symposium on Geotechnical Engineering, Ground Improvement and Geosynthetics for Sustainable Mitigation and Adaptation to Climate Change including Global Warming is jointly organized by Southeast Asian Geotechnical Society (SEAGS), International Geosynthetics Society Thailand (IGS-Thailand) and Asian Center for Soil Improvement and Geosynthetics (ACSIG) from 2 to 3 December 2009 to be held in Bangkok, Thailand.

ASIAN INSTITUTE OF TECHNOLOGY, THAILAND

Founded in 1959, the Asian Institute of Technology is in its 40th year of service of being an autonomous, international post-graduate institution of engineering and management which houses three Schools and five Academic Centers, including the AIT Center in Vietnam. AIT derives its unique strength in research and consultancy work at all levels-national, regional and international – from its network of professional resources. More information can be obtained from the AIT website at <http://www.ait.ac.th/>. To further achieve an efficient and effective delivery of its mission in Asia and the Pacific Region, several Outreach Centers have been established and mobilized in AIT. The Asian Center for Soil Improvement and Geosynthetics (ACSIG) is one of the centers established in the School of Eng'g. and Tech.

INTERNATIONAL GEOSYNTHETICS SOCIETY

The International Geosynthetics Society (IGS) is a non-profit organization dedicated to the scientific and engineering development of geosynthetics and associated technologies. The IGS has 1,737 individual members and 118 corporate members from 68 countries, as well as 264 student members. The IGS-Thailand Chapter was established in 2002 to meet the local needs and disseminate further the geosynthetics and associated technologies in Thailand and beyond.

THE SOUTHEAST ASIAN GEOTECHNICAL SOCIETY (SEAGS)

The Southeast Asian Geotechnical Society was founded in 1967 by Dr. Za-Chieh Moh as a Regional Society encompassing countries or territories in Southeast Asia, not full fledged in the National Society of the then International Society for Soil Mechanics and Foundation Engineering (ISSMFE). At that time, the Society was called the Southeast Asian Society of Soil Engineering (SEASSE). The countries which originally composed this Regional Society were Thailand, Malaysia, Singapore, Philippines, Indonesia, Hong Kong and Taiwan with members from Korea, Vietnam, Nepal, Bangladesh, Burma and Pakistan. As each country began to develop, they formed their own National Societies. Thus, we now have National Societies in Indonesia, Korea, Vietnam, Pakistan, Bangladesh, Nepal, Hong Kong, Thailand and Singapore. However, there are still many members from these countries who retain their membership in SEAGS. Additionally, the Southeast Asia Region is very dynamic in its development and as such, many Geotechnical Engineers and Companies have interest in the region and many of them worked in Southeast Asia. SEAGS arranges regular Southeast Asian Conferences once in two to three years, publishes a Journal and prepares Newsletters as well as liaise with ISSMFE. The current President of SEAGS is Prof. C.T. Chin and the current Secretary – General is Prof. D.T. Bergado.

ASIAN CENTER FOR SOIL IMPROVEMENT AND GEOSYNTHETICS (ACSIG)

The role of already established outreach and research center such as ACSIG is well-suited for the focal area. ACSIG acts as a catalyst in advancing innovative techniques and the use of new materials and economical techniques for mitigation and rehabilitation of disasters. ACSIG also is conducive for synergy of various fields and close cooperation between academe and the industry. Competition in the international market, the ever increasing scarcity of favorable sites for development, the occurrence of disasters, and the need for ecological solutions to preserve the environment for future generations will stimulate enormous research efforts and projects with particular emphasis on addressing challenges to human security.

ADVISORY COMMITTEE

- **Prof. Fumio Tatsuoka**, President, International Geosynthetics Society (IGS)
- **Prof. Pedro Pinto**, President, International Society of Soil Mechanics and Geotechnical Engineering (ICSMGE)
- **Prof. Madhira Madhav**, VP for Asia, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE)
- **Prof. Takaji Kokusho**, Chair, Technical Committee (TC4) on Earthquake Geotechnical Engineering and Associated Problems of ISSMGE
- **Prof. Jian Chu**, Chair, Technical Committee (TC39) on Geotechnical Engineering for Coastal Disaster Mitigation and Rehabilitation of ISSMGE

ORGANIZING COMMITTEE

- **Prof. Dennes T. Bergado**, President, International Geosynthetics Society Thailand Chapter and Professor, Asian Institute of Technology
- **Dr. Noppadol Phien-wej**, Coordinator, Geotechnical and Geoenvironmental Engineering, Asian Institute of Technology
- **Dr. Pham Huy Giao**, Assistant Professor, Asian Institute of Technology
- **Dr. Montri Dechakulsom**, Research Engineer, Materials and Research Division, Department of Highways, Thailand
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- **Dr. Sompote Youwai**, Lecturer, King Mongkut's University of Technology Thonburi, Thailand

- **Dr. Chairat Teerawattanasuk**, Lecturer, King Mongkut's Institute of Technology, North Bangkok, Thailand
- **Dr. Suttisak Soralump**, Lecturer, Kasetsart University, Bangkok, Thailand
- **Dr. Wilailak Sramoon**, Lecturer, Mahanakorn University, Bangkok, Thailand
- **Dr. Suksun Hortibulsuk**, Lecturer, Suranaree University of Technology, Thailand

OVERVIEW OF GEOSYNTHETICS

Geosynthetics is the catch all terms, used to describe a range of generally **synthetic** or man-made materials made from various types of **polymers** used to solve **geotechnical** problems. The word polymer comes from Greek word *poly* meaning many and *meros* meaning parts. Thus, a polymeric material consist of many parts joined together to make a whole. The common polymers used to produced geosynthetics are polyester (PET), polypropylene (PP) and polyethylene (PE). Geosynthetics are available in a wide range of forms and materials, each to suit a slightly different end use or function such as; Separation, Anti-cracking, Lining, Protection, Reinforcement, Drainage and Filtration. Geosynthetics are currently used in many civil and geotechnical engineering applications including roads and railways, paving, reservoirs, waste disposals, foundation and wall, erosion control and drainage system.

THEMES OF THE SYMPOSIUM

- Geosynthetics for Climate Change due to Global Warming
- Geosynthetics for Coastal and Riverbank Erosions
- Geosynthetics for Sustainable Infrastructures including Limited Life Geosynthetics
- Geosynthetics for Human Security
- Geosynthetics for Water Conservation
- Geosynthetic for Food and Agriculture
- Landslides and Debris Flows due to Rainfall during Storms and Typhoons
- Mechanics of Rain-Triggered Landslides and Debris Flows
- Early Warning System for Landslides and Debris Flows
- Risk Assessment of Rain-Triggered Landslides and Debris Flows
- Case Studies of Coastal Erosion and Mitigation
- Case Histories of Riverbank Erosion and Mitigation

RESOURCE SPEAKERS

Keynote Lectures

Prominent personalities and well-known world authorities in the topics of the Symposium will be invited to present Keynote Lectures.

Special Lectures

Innovative topics from successful academics will be the subject matter of Special Lectures

Invited Lectures

Applied topics from well-known practitioners will comprise Invited Lectures