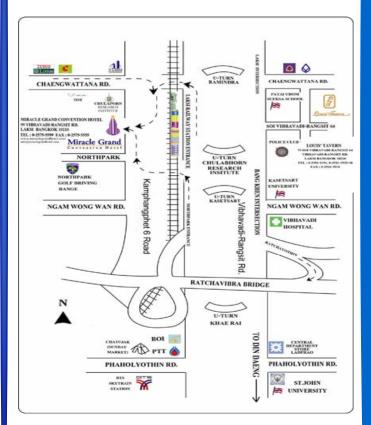
#### ACCOMMODATION Miracle Grand Convention Hotel

99 Vibhavadi-Rangsit Road, Laksi, Bangkok 10210 Thailand *Website: www. miraclegrandhotel.com* E-mail: info@miraclegrandhotel.com

#### **Room Rates**

Single Superior Room: Baht 2,300(US\$ 58)++ per room per night (include ABF) Twin Superior Room: Baht 2,600 (US\$ 65)++ per room per night (include ABF)

Note: Please mention the symposium's title when booking the hotel.



### **Registration**

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

	Foreign Participants	US\$ 150
	IGS/AITAA member (foreign)	US\$ 100
	Thai Participants	Baht 3,000
	IGS/AITAA member (local)	Baht 1,500

# 

Email: \_\_\_\_\_

Bank Transfer (Add 3%)

\*Account Name: Asian Institute of Technology \*Account Number: 359 - 3 - 00001 - 2 \*Bank Address: Siam Commercial Bank, Klong Luang Branc 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: \_\_\_\_\_

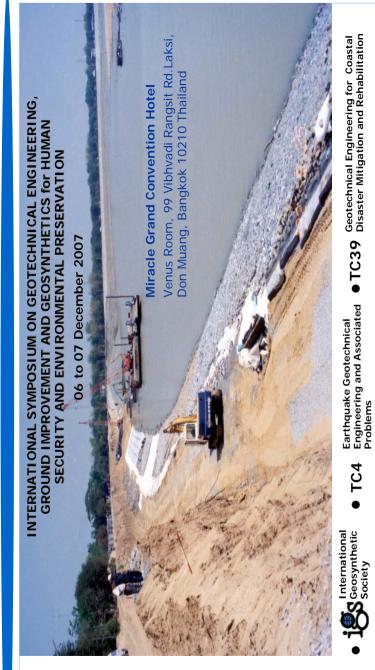
Cardholder's Name: \_\_\_\_\_

Cardholder's Signature: \_\_\_\_\_

Payment in favor of ACSIG/AIT

### CONTACT INFORMATION

Prof. Dennes T. Bergado, ACSIG Director, Email: bergado@ait.ac.th Sonny Montalbo, Manager, Email: acsig@ait.ac.th,(662 524 5523) Cheryl Esin, Program Assitant, Email: esin@ait.ac.th, (662 524 5500) Orfa Kidweng, Research Assistant, Email: igs-thailand@ait.ac.th





#### **INTRODUCTION**

The content of the technological innovation cycle cannot be independent from the context of society that provides circumstances, situations, and backgrounds. Thus, designs of solutions must conform to societal demands of nature preservation including cultural, economical and ecological perspectives such as pollution prevention, energy efficient and sustainable resources, underground excavation and tunneling, waste containment and landfills, considerations of geological hazard, etc. Verified physical and numerical models are often used as tools to predict future impacts and resulting risks as well as to find out the vulnerability of societies.

Design of safe structures that save the lives of people during occurrences of natural and man-made disasters has been the principal objective and moral responsibility of every civil engineer. More so, in the Asian region where natural disasters frequently strike without warning. These disasters include earthquake and volcano eruptions, flood and tsunamis, typhoons and storms, landslides and ground subsidence, etc. Effective countermeasures against hazards include such activities as disaster prediction and risk assessment, earthquake and erosion resistant structures, seismic design of dams and embankments, construction of barriers against floods and tsunamis, slope reinforcement to prevent landslides, improving the soil to increase strength, reduce compressibility and prevent liquefaction, applications of natural and synthetic fabrics for preservation of environment, including the use of innovative barrier materials for landfills and new fabrics for erosion control and others.

As a follow up to the previous International Symposium on Tsunami Reconstruction with Geosynthetics held last December 2005, an International Symposium on Geotechnical Engineering, Ground Improvement and Geosynthetics for Human Security and Environmental Preservation will be organized by Southeast Asian Geotechnical Society(SEAGS), International Geosynthetic Society Thailand(IGS-Thailand) and Asian Center for Soil Improvement and Geosynthetic(ACSIG) on 6 to 7 December 2007.

#### **HUMAN SECURITY**

Measurement of susceptibility of communities to the impact of natural and manmade hazards are preconditions of the effective and systematic integration of the vulnerability and risk reduction into day-to-day decision-making process such as emergency and disaster-mitigation plans. Disaster reveal the lack of knowledge beforehand. Vulnerability estimation and reduction are vital for early warning and effective risk reduction. Scientific researches and contributions to the global environment provide progress towards disaster-resilient societies and human security.

#### 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 four 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 Civil Engineering.

#### **INTERNATIONAL GEOSYNTHETIC 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 96 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 and Nepal. 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 liase with ISSMFE. The current President of SEAGS is Prof. K.Y. Yong 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 condusive 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

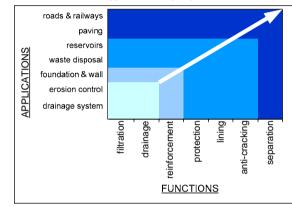
- Prof. Fumio Tatsuoka, President, International Geosynthetic Society(IGS)
- **Prof. Takaji Kokusho**, Chair, Technical Committee (TC4) on Earthquake Geotechnical Engineering and Associated Problems of ISSMGE
- Prof. Jian Chu, Chair, Technical Committee (TC39) on Geotechnical Engineering for Coastal Disaster Mitigation and Rehabilitation of ISSMGE

#### **ORGANIZING COMMITTEE**

- Prof. Dennes T. Bergado, President, International Geosynthetic 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 Dechasakulsom, Research Engineer, Materials and Research Division, Department of Highways, Thailand
- **Dr. Panich Vootipruex**, Associate Professor, King Mongkut's Institute of Technology, North Bangkok, Thailand
- 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. The following figure shows the relationship between various functions and applications of geosynthetics:



#### **RESOURCE SPEAKERS**

.

Keynote and invited lectures will be given by the eminent researchers and practitioners. It is hoped that the conference will benefit the geotechnical profession as a whole, in particular those who are involved in disaster prevention, mitigation, rehabilitation, and reconstruction works for human security. In addition, this conference would add impetus to research and development as well as promote environmental preservation.

# CALL FOR PAPERS

Technical papers related to the theme of the Symposium are welcome. Topics include natural disasters (tsunami, earthquake, landslide, typhoons, coastal and riverbank erosions, etc.), mitigation (early warning and prediction system for tsunami, earthquakes and landslides, protection works, etc), risk analysis (hazard mapping, consequence evaluation, etc.), rehabilitation and reconstruction (difficult soils, ground treatment, design against earthquake and other natural disasters, etc.) and others (soil dynamics, liquefaction, stability and movement, environmental protection, case studies, etc.). It is recognized that disaster mitigation and rehabilitation involve many disciplines besides geotechnical engineering such as geosynthetics and environmental geotechnics, etc.

## FECHNICAL EXHIBITIONS

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. For booking, please contact the Conference Secretariat.