## **Symposium Program**

## The 6<sup>th</sup> Asia and Pacific Young Researchers and Graduates Symposium

Venue: Sirindhorn International Institute of Technology (SIIT), Thammasat University

Date: 31<sup>st</sup> July – 1<sup>st</sup> August 2014

#### Day 1 (31<sup>st</sup> July 2014)

#### **Morning Session**

	Room #414		
9:00 - 9:30	Welcome Speech		
	Prof. Dr. Somnuk Tangtermsirikul		
	Director, Sirindhorn International Institute of Technology (SIIT)		
	Thammasat University		
9:30 - 10:30	Keynote Presentation		
	Maintenance Management on Health Monitoring System of Cable Bridge		
	Dr. Dae-Joong Moon		
	EJ Tech Corporation, Republic of Korea		
10:30 - 11:00	Coffee Break		
11:00 - 12:00	Keynote Presentation		
	Some Characteristic Properties of Cementitious Materials Dependent on the		
	Behavior of Water in Minute/Narrow Spaces		
	Prof. Dr. Toshiharu Kishi		
	The University of Tokyo, Japan		
12:00	Group Photos & Lunch		

#### Afternoon Session

Ajternoon session				
	Room #411		Room #416	
13:30 - 15:10	Parallel Session 1A		Parallel Session 1B	
15:10 - 15:30	Coffee Break			
15:30 – 17:10	Parallel Session 2A		Parallel Session 2B	
Relaxation Time				
17:30	Transportation to Banquet			
19:00	Banquet			

<u>Note</u>: 20 minutes is allocated for each presentation. The presentation should not be longer than 15 minutes in order to have some discussions after each presentation.



# YRGS 2014 The 6th Asia and Pacific Young Researchers and Graduates Symposium

SIIT (Rangsit Campus), Thammasat University Thailand 31st July – 1st August 2014

#### Day 2 (1st August 2014)

#### **Morning Session**

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	Room #411	Room #416		
9:30 - 10:30	Parallel Session 3A	Parallel Session 3B		
10:30 - 11:00	Coffee Break			
11:00 - 12:00	Parallel Session 4A	Parallel Session 4B		
12:00	Lunch			

#### **Afternoon Session**

	Room #414
13:30 - 14:30	ACF Special Session
14:30 - 15:00	Announcement of ACF Outstanding Paper Award
15:00 – 15:30	Closing Speech

<u>Note</u>: 20 minutes is allocated for each presentation. The presentation should not be longer than 15 minutes in order to have some discussions after each presentation.

## **Technical Sessions**

**Session 1A:** (31<sup>st</sup> July 2014, 13:30 – 15:10 Room 411)

Session Chair: Dr. Yazuxi Tanaka, Dr. Suchart Limkatanyu

Wavelet Analysis of Acceleration and Strain Measurements of a High-Speed Train Railway Bridge

Mohamed A. Sayed, Mosbeh R. Kaloop, Hogeun Cho, Eunsung Kim and Dookie Kim

Comparative Study of Frame and Shell Elements in Modeling of High Speed Railway Bridge Songsak Suthasupradit, Piyarat Paoleng and Rattapoohm Parichatprecha

Static Flexural Strength of Grid Structured GFRP Decks

H. Onishi and K. Yaegashi

Effect of Soil-Foundation-Structure Interaction of a Seismically Base-Isolated Nuclear Power Plant

Sunghyuk Go, Dookie Kim, Hogeun Cho, and Sung-Gook Cho

Study of Continuum Finite Element Model for Dynamic Laterally Loaded Pile Analysis P. Thammarak and K. Tantayopin

**Session 1B:** (31<sup>st</sup> July 2014, 13:30 – 15:10 Room 416)

Session Chair: Dr. Shingo Asamoto, Dr. Withit Pansuk

Effect of PET Fibres Different Aspect Ratio on Fresh and Mechanical Properties of Cement Concrete

Raju, Rohin Kausik, Tarun Sharma

Mechanical Properties of Geopolymer Mixed with Steel Fiber Reinforced Concrete Rachamongkon Wongruk, Smith Songpiriyakij, Piti Sukontasukkul and Prinya Chindaprasert

Chloride Penetration Resistance and Chloride Binding Capability of Cement Paste with Mineral Admixtures

W. Soonjun, R. Sahamitmongkol and S. Tangtermsirikul

Study on Chloride Resistance Properties of Concrete in a Port

Jianfeng Dong, Yueliang Gan, Qiming He, Yunlai Tao, Ming Ji and Yuxi Zhao

Elucidation of Rapid Reduction of Water Flow through Concrete Crack Regarded as Selfhealing Phenomenon

H. Ikoma, T. Kishi, Y. Sakai, and M. Kayondo

**Session 2A:** (31<sup>st</sup> July 2014, 15:30 – 17:10 Room 411)

Session Chair: Dr. Kohei Nagai, Dr. Panchet Thammarak

Symbolic Finite Element Programming for Closed-Form Analysis of Unit Cells of 2D Periodic Cellular Solids

P.Sam, K. Theerakittayakorn and P. Nanakorn

Rapid Prediction of Long-term Deflections in High-rise Composite Frames using Neural Networks

Sandeep Chaudhary, Umesh Pendharkar, K.A. Patel, and A.K. Nagpal

**Euler-Bernoulli Beam Element Based on Modified Strain-Gradient Elasticity Theory** S. Limkatanyu

Exact Stiffness Matrix for Modified Strain-Gradient Bars Embedded in Elastic Substrate Media: the Virtual Displacement Derivation
S. Limkatanyu

Numerical Modelling of Moisture Penetration in Concrete Subjected to Intermittent Rainspells

K. Sarkar and B. Bhattacharjee

**Session 2B:** (31<sup>st</sup> July 2014, 15:30 – 17:10 Room 416)

Session Chair: Dr. Hwa Kian Chai, Dr. Warangkana Sangsoy

Effect of Pozzolanic Materials on Thermal Properties and Compressive Strength of Hardened Mortar and Concrete

V. Tran Huu, R. Sahamitmongkol and S. Tangtermsirikul

Effect of Moisture Content of Wet Fly Ash on Properties of Paste and Mortar

Thuy Bich Thi Nguyen, Warangkana Saengsoy, Somnuk Tangtermsirikul

**Evaluation of Threshold Pore Diameter of Concrete Using a Novel Method and Non-destructive Tests** 

Y. Sakai and T. Kishi

Development of a Novel Non-Destructive Test Method to Evaluate the Distribution of Air Permeability in the Depth Direction in Concrete

Isao Kurashige and Michihiko Hironaga

**Studies on Concrete Made with RCA under Laboratory Conditions** 

K. Usha Nandhini, S. Jayakumar and S. Kothandaraman

**Session 3A:** (1<sup>st</sup> August 2014, 9:30 – 10:30 Room 411)

Session Chair: Dr. Sandeep Chaudhary, Dr. Yew-Chin Koay

Comparison of Effects of Viscous and Structural Damping on Dynamic Responses of Structures

SeongOh Guk, Dookie Kim, and Md. Kamrul Hassan

Comparison of Earthquake Resistant Design of Flat-slab RC Building and Regular RC Framed Building with Varied Shear Wall Configuration

Kumaraguru S. and Vinoth Kumar N.

#### **Study on TSUNAMI Force Acting on Bridges**

Y. Tanaka, K. Maruyama, N. Kenmotsu, and M. Watanabe

**Session 3B:** (1<sup>st</sup> August 2014, 9:30 – 10:30 Room 416)

Session Chair: Dr. Isao Kurashige, Dr. Chalermchai Wanichlamlerd

Investigation into Characteristics of Cementitious Materials Exposed to High Temperature S. Asamoto, K. Murano, I. Kurashige and D. Minato

The Observations of Aesthetic Damage to Oven-dried Mortar Exposed to Fire O. Rongviriyapanich, Y. Sato and W. Pansuk

Development of Tomography Reconstruction Techniques for Concrete Using Elastic Wave Time and Frequency Domain Parameters

Kit Fook Liu, Hwa Kian Chai, Yoshikazu Kobayashi and Tomoki Shiotani

**Session 4A:** (1<sup>st</sup> August 2014, 11:00 – 12:00 Room 411)

Session Chair: Dr. Jian-Guo Dai, Dr. Pakawat Sancharoen

Two-dimensional Ray-trace Technique for Anisotropic Materials

Y. Kobayashi, T. Shiotani, S. Momoki and K. Oda

Parametric Study of Surface Rayleigh Waves Propagating in Concrete with Sub-surface Delamination

Foo Wei Lee and Hwa Kian Chai

Case Study: Culvert Replacement Options for Princess Highway over Little River Anabranch

Y.C. Koay, P. Sing and G. Noyes-Brown

**Session 4B:** (1<sup>st</sup> August 2014, 11:00 – 12:00 Room 416)

Session Chair: Dr. Yuya Sakai, Dr. Parnthep Julnipitawong

**Recycling of Pile Heads as Concrete Masonry Units** 

Gopala Krishna M.B., Shivananda K.R., and Dr.Prakash P

Evaluation of Pathogen Destruction in Chicken Manure using "Serial self-turning Reactor (STR)' Technology at Different Mixing Ratios

Long Sy Doan and Taweep Chaisomphob

Comparative Study on Embodies Energy of RAC and NAC

K. Usha Nandhini, S. Jayakumar and S. Kothandaraman

**ACF Special Session:** (1<sup>st</sup> August 2014, 13:30 – 14:30 Room 411)

Session Chair: Dr. Yoshikazu Kobayashi, Dr. Raktipong Sahamitmongkol

Mechanical Performance of Slag-Based Geopolymer Cement Mortar Reinforced with Different Types of Short Fibers

Tao Li, Jian-Guo Dai and Yamei Zhang

An Analytical-numerical Procedure Incorporating Cracking in RC Frames at Service Load K.A. Patel, Sandeep Chaudhary, and A.K. Nagpal

Numerical Simulation of Failure of Beam-Column Joint with Mechanical Anchorage by 3D Discrete Analysis

Tao Wang, Liyanto Eddy and Kohei Nagai

## **Symposium Venue**

## Sirindhorn International Institute of Technology (SIIT)

## Thammasat University (Rangsit Campus)



Sirindhorn International Institute of Technology (SIIT) is offering 9 international programs in Engineering, Technology, and Management. It was, in 1992, founded by the Federation of Thai Industries (FTI), Japan Federation of Economic Organizations (Keidanren), and Thammasat University.

Website: http://www.siit.tu.ac.th

**GPS:** 14.068924, 100.607429

#### Saraburi Thai Market hammasat University Outer Ring Rd. Rangsit Campus to Bang-Na -> Chiengrak Railway Station Bangkok University Future Pathum Thani Rangsit Nakhon Nayok Rd. Rangsit Market● Rangsit University Carrefour Dept. Store Zeer Dept. Store Vibhavadi 7 Lam Luk Ka, Pathum Thani Rangsit Rd Donmuang Airport Bangkok 🕊 7 Paholyothin Road

Donmuang Airport to TU-Rangsit Campus

## **Location (Thammasat Rangsit Campus)**

SIIT is located in Thammasat University (Rangsit Campus), it is approximately 35 km north of Bangkok city.

The most convenient way to come to SIIT is by Taxi since the mass rapid transit to Thammasat University (Rangsit Campus) is still under construction. Most Taxi drivers know Thammasat University (Rangsit Campus).

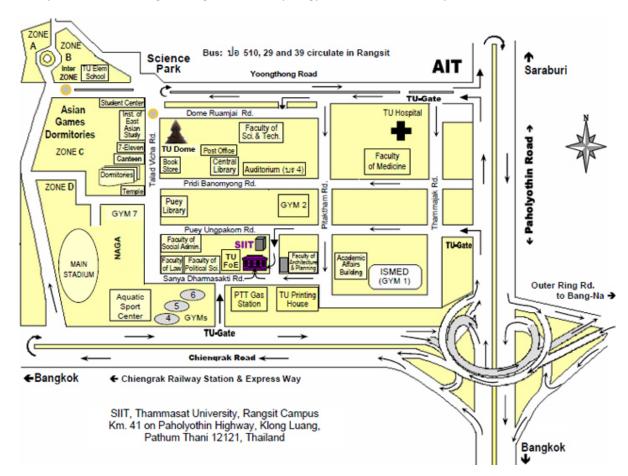
Thailand has two airports. The new international airport "Suvarnabhumi Airport" is located east of Bangkok and is approximately 65 km away from SIIT. The other airport "Donmuang Airport" which is now used for low-cost airline is closer to SIIT.

<u>Note</u>: Thammasat University has two main campuses "Taprachan" and "Rangsit". Please make sure you come to "Rangsit Campus".



#### **Map Inside Thammasat University (Rangsit Campus)**

The map below shows the SIIT location in Thammasat University. It is positioned in between the 'Faculty of Engineering' and 'Faculty of Architecture & Planning'. If you enter Thammasat from Paholyothin Road through First gate into Puey Ungpakorn Rd., SIIT is on your left-hand side.



#### **Recommended Accommodation**

## **Asia Airport Hotel**

Website: http://www.asiahotel.co.th/asia airport.htm

**GPS:** 13.962020, 100.623716 (approximate location)

The Asia Airport Hotel is located in a complex situated 3 kms north of the former Bangkok domestic and international airport (Don Muang Airport). There are many excellent facilities for the weary traveler, including a lounge, lobby, coffee shop (5.30 am-1.00 am), Room service (24 hr), swimming pool, fitness room, table-tennis, video and music room, study area, snooker room and traditional Thai foot and body-massage. The lower floors of the complex have many shops, local and international restaurants.

The hotel is offering special room rates for participants of YRGS2014 symposium and we are preparing transportation van between the hotel and SIIT in the morning of  $31^{st}$  July and  $1^{st}$  August 2014.







