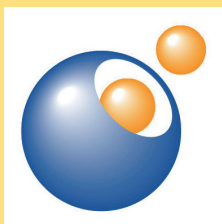


Second Bulletin

2nd International Conference on Transportation Geotechnics

IS-Hokkaido 2012

Hokkaido University, Sapporo
September 10 (Mon) - 12 (Wed), 2012



Organized by
Japanese Geotechnical Society

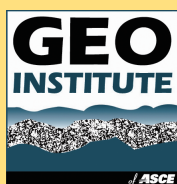


Under the auspices of
International Society for Soil Mechanics
and Geotechnical Engineering

With the support of



Hokkaido
University



Geo-Institute of
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International
Geosynthetic
Society



Transportation
Research Board

Conference and Exhibition

The International Conference on Transportation Geotechnics (ICTG) was first held at the University of Nottingham in 2008, which had been selected as host by TC3 (Geotechnics of Pavements) of the ISSMGE. The conference was a great success and significantly promoted co-operation and exchanges of information and knowledge concerning the geotechnical aspects of the design, construction, maintenance and monitoring of pavements and related transportation infrastructure. The 2nd ICTG will offer speciality sessions to discuss some issues essential for further development of transportation geotechnics (e.g. unsaturated soils, frost geotechnics, advanced laboratory testing) in addition to the topics addressed in the 1st ICTG.

This conference will comprise parallel sessions over a 3-day period and will include keynote lectures, oral presentations and discussions. Sessions will be chaired by internationally recognized academics and practitioners. Three workshops are also planned.

The conference is being organized, under the auspices of the ISSMGE, by the Hokkaido Branch and the TC202 (Transportation Geotechnics, former TC3) national committee of the Japanese Geotechnical Society in association with TC202 of the ISSMGE. Co-operation is also provided by TC101 (Laboratory Stress-Strain Strength Testing of Geomaterials), TC106 (Unsaturated Soils) and TC216 (Frost Geotechnics) of the ISSMGE.

One of the highlights of the conference will be the technical exhibition, to take place in the Conference hall. It will demonstrate a complete range of products and state-of-the-art technologies relevant to Transportation Geotechnics.

Organizing and Advisory Committees

Local Organizing Committee

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Prof. Kazuyoshi Tateyama (Japan)
Dr. Masaru Tateyama (Japan)
Prof. Fumio Tatsuoka (Japan)
Prof. Hai-Sui Yu (UK)

Correspondence

If you have inquiries about the Conference, please contact us.

2nd ICTG Secretary General

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Technical Program

Topics

1. Geotechnics for Pavement, Rail Track and Airfield
2. Geomaterial, including Nontraditional Materials
3. Asphalt Mixtures and Hydraulically-bound Materials
4. Earthworks for Transportation Facilities
5. Application of Geosynthetics
6. Laboratory Testing and In-situ Testing
7. Modeling and Numerical Simulations
8. Design, Construction and Maintenance
9. Performance Evaluation and Quality Control
10. Sustainability of Management and Rehabilitation
11. Risk Assessment and Environmental Issues

Program

	Sep.9	Sep.10	Sep.11	Sep.12
9:30			Keynote Lecture "Performance Evaluation of Shock Mats and Synthetic Grids in the Improvement of Rail Ballast" Professor B. Indraratna	Keynote Lecture "Bituminous Mixtures: from Thermo-mechanical Properties of Components to Structure Calculation" Professor H. Di Benedetto
10:00				
10:15		Opening Ceremony	Break	Break
10:45				
11:00		Special Lecture "Trends and Challenges in Earthworks for Transportation Infrastructures" Professor A. Gomes Correia Professor J.-P. Magnan	Tech. Session	Tech. Session
12:00				
12:15		Lunch	Lunch	Lunch
13:30				
14:15	Workshop 1 Intelligent Compaction (IC)	Workshop 2 Challenges for Transportation Geotechnics in Extreme Climates	Keynote Lecture "GRS Structures Recently Developed and Constructed for Railways and Roads in Japan" Professor F. Tatsuoka	Keynote Lecture "Soil Suction Measurements in Highway Subgrades" Professor D. G. Fredlund
14:45			Keynote Lecture "Sustainable Pavement Construction Utilizing Engineered Unbound Aggregate Layers" Professor E. Tutumluer	Break
15:00				
15:30	Break	Break	Break	Tech. Session
16:00			Tech. Session	
16:15	Workshop 1 Intelligent Compaction (IC)	Workshop 3 Geotechnical Challenges in Rail Track and its Transition Zones		Break
16:30			Break	
17:00			Special Lecture "Mechanical Behavior and Earthquake-induced Failures of Volcanic Soils in Japan" Professor S. Miura	TC202 State-of-the-arts Report
17:20				
17:30				
17:45				
18:00		Tech. Session		Closing Ceremony
18:30				
19:00				
19:30		Welcome Party		
20:30			Banquet	
21:30				

Invited Lecturers

Seven internationally renowned academics and engineers are invited to deliver special/keynote lectures.

Special Lectures



**Professor
A. Gomes Correia**



**Professor
J.-P. Magnan**

"Trends and Challenges in Earthworks for Transportation Infrastructures"



**Professor
S. Miura**

"Mechanical Behavior and Earthquake-induced Failures of Volcanic Soils in Japan"

Keynote Lectures



**Professor
H. Di Benedetto**

"Bituminous Mixtures: from Thermo-mechanical Properties of Components to Structure Calculation"



**Professor
D. G. Fredlund**

"Soil Suction Measurements in Highway Subgrades"



**Professor
B. Indraratna**

"Performance Evaluation of Shock Mats and Synthetic Grids in the Improvement of Rail Ballast"



**Professor
F. Tatsuoka**

"GRS Structures Recently Developed and Constructed for Railways and Roads in Japan"



**Professor
E. Tutumluer**

"Sustainable Pavement Construction Utilizing Engineered Unbound Aggregate Layers"

Workshops

Date September 9, 2012

Time Workshop 1 13:30 - 17:20, Workshop 2 13:30-15:30, Workshop 3 16:00-18:00

Venue Sapporo center for gender equality, Sapporo, Hokkaido, Japan
For location, see "Venue and Sapporo"

Workshop 1

Intelligent Compaction (IC)

"Intelligent compaction" is the advanced soil compaction in which the construction and the site management are sophisticated with modern information communication technologies. The ground evaluation system through the vibrating behavior of a vibratory roller is one of the representative techniques in the intelligent soil compaction. In the system, the degree of soil compaction can be grasped by monitoring its vibrating behavior which changes with the increase of the ground stiffness during soil compaction. The intelligent compaction has been introduced widely in the world, because the stiffness of the compacted soil can be monitored in real-time on whole the site. In the workshop, the present conditions of the intelligent compaction will be reported on each region of Europe, North America and Japan and the results of other research projects will be presented by some participants.

P R O G R A M

13:30-15:30 State of the art reports

Europe: Professor A. Gomes Correia (University of Minho, Portugal)

North America: Dr. Yukinori Tsukimoto (Sakai Heavy Industries, .Ltd, Japan)

Japan: Dr. Hiroshi Furuya (Obayashi Corporation, Japan)

16:00-17:00 General presentations on the Intelligent Compaction

17:00-17:20 Discussion

Workshop 2

Challenges for Transportation Geotechnics in Extreme Climates

This session will be divided into two categories. One is transportation geotechnics at low temperatures such as in cold regions or at high altitudes. Many road, rail road and air field structures are seriously damaged every year due to the freezing and thawing of soils and of the lower, unbound, materials beneath the pavement. Dr. Arne Instanes, chair of TC216 on Frost, from Norway, will make a state-of-the-art report. The report will include frost protection design procedures in the Nordic countries, case studies from the European North and results from recent studies on the effect of future climate change on road systems in the North.

The other topic is about the effect of moisture on the behavior of soils and aggregates in

Workshops

transportation structures. Mr. Andrew Dawson from UK, chair of the European COST Action and editor of the reference book on “Water in Road Structures” will make a general report, addressing the effects that water can have on mechanical response, methods for measuring, analyzing and managing the condition and what effects pavements and associated earthworks may have to face in the light of climate change.

Presentations will be given by experts drawn from the TC members, with others, to stimulate participants’ interest.

PROGRAM

- 13:30-14:20** Discussion leader: Dr. Arne Instanes;
1. General report by Dr. Arne Instanes about transportation geotechnics at low temperatures.
2. Some related presentations and discussions by participants.
- 14:20-15:10** Discussion leader: Mr. Andrew Dawson;
3. General report by Mr. Andrew Dawson about effect of moisture on the behavior of soils and aggregates in transportation structures.
4. Some related presentations and discussions by participants.
- 15:10-15:30** 5. Summarizing comments by two leaders.

Workshop 3

Geotechnical Challenges in Rail Track and its Transition Zones

Railway transition zones between different structures, especially embankment and bridge, are known to be an area in which problems often arise and where extra care is needed in inspections or maintenance work. In transition zones, local track irregularities easily occur due to differential settlement of structures or sudden change of the support rigidity causing various troubles of the track (hanging sleepers, ballast crush, mud pumping, fatigue of track parts, etc.). Furthermore, transition zones are weak against disasters, especially major earthquakes. Based on the above-mentioned problems, we expect to discuss the following keywords in the workshop: “High-speed lines” , “Heavy haul” , “Anti-seismic structures” , “Measure for existing lines” , “New track system for transition zone” and etc.

PROGRAM

Chair: Dr. Sofia Costa D'Aguiar (SNCF)

- 16:00-17:30** The state of the art
Professor Peter Woodward (Heriot-Watt University, UK)
Professor Konstantinos Giannakos (Visiting Professor of Railway Engineering, University of Thessaly, Greece)
Dr. Yasuo Watanabe (East Japan Railway Company, Japan)
Dr. Kenji Watanabe (Railway Technical Research Institute, Japan)
- 17:30-18:00** Discussion

Conference Information

Dates

Conference: Monday, September 10 through Wednesday, September 12, 2012

Workshop: Sunday, September 9, 2012

Venue

Conference: Hokkaido University, Sapporo, Japan

Workshop: 4th Floor, Sapporo Center for Gender Equality, Sapporo, Japan

	Early bird On/Before July 31, 2012	Regular / On-site On/After August 1, 2012
ISSMGE Members IGS Members	45,000 JPY	55,000 JPY
JGS Members *	50,000 JPY	60,000 JPY
Others	60,000 JPY	70,000 JPY
Students	20,000 JPY	
Accompanying person(s)	10,000 JPY	
Banquet fee (Sep. 11)	6,000 JPY	

* In case your organization is a corporate member of JGS, you are allowed to make a registration as a JGS member.

Registration Fees (for Members, others and students) include:

- Access to ceremonies, lectures, sessions and workshops.
- The Program
- Proceedings (USB)
- A hardcopy of the abstract volume
- Lunches
- Refreshments

* Welcome party (Sep. 10) is free of charge for all of participants.

Accompanying person(s) Fee includes:

- Lunches
- Refreshments
- Accompanying persons program

* Welcome party (Sep. 10) is free of charge for all of participants.

Please note that "Accompanying person(s)" means a member of your family, not your colleagues.

Social Events

Welcome Party

All of participants are invited to the welcome party. The party will be held in Restaurant "ELM" of Faculty House Trillium in Hokkaido University.

Date Monday, September 10

Time 19:30 - 20:30 (Tentative)

Fee Free of charge



Banquet

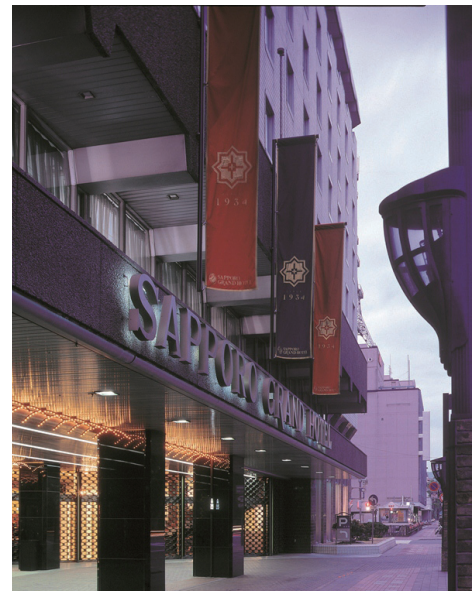
Why don't you join us for the conference banquet?

The banquet will be held in Sapporo Grand Hotel where was built in 1934 as the first European style hotel in Hokkaido and is one of the best hotel in the city. They serve very local dishes.

Date Tuesday, September 11

Time 19:30 - 21:30 (Tentative)

Fee 6,000 JPY



Accompanying Persons Program: Flower arrangement in Japanese style

We invite accompanying persons to our special program: Kado, the way of the flowers.

This traditional art pursues quintessentially Japanese aesthetics, 'wabi-sabi' (simpleness and calmness) in a perfect harmony of vase, stems, leaves, branches and flowers. This event will take place in the same venue as the conference.

Date Tuesday, September 11

Time 13:30 - 15:00

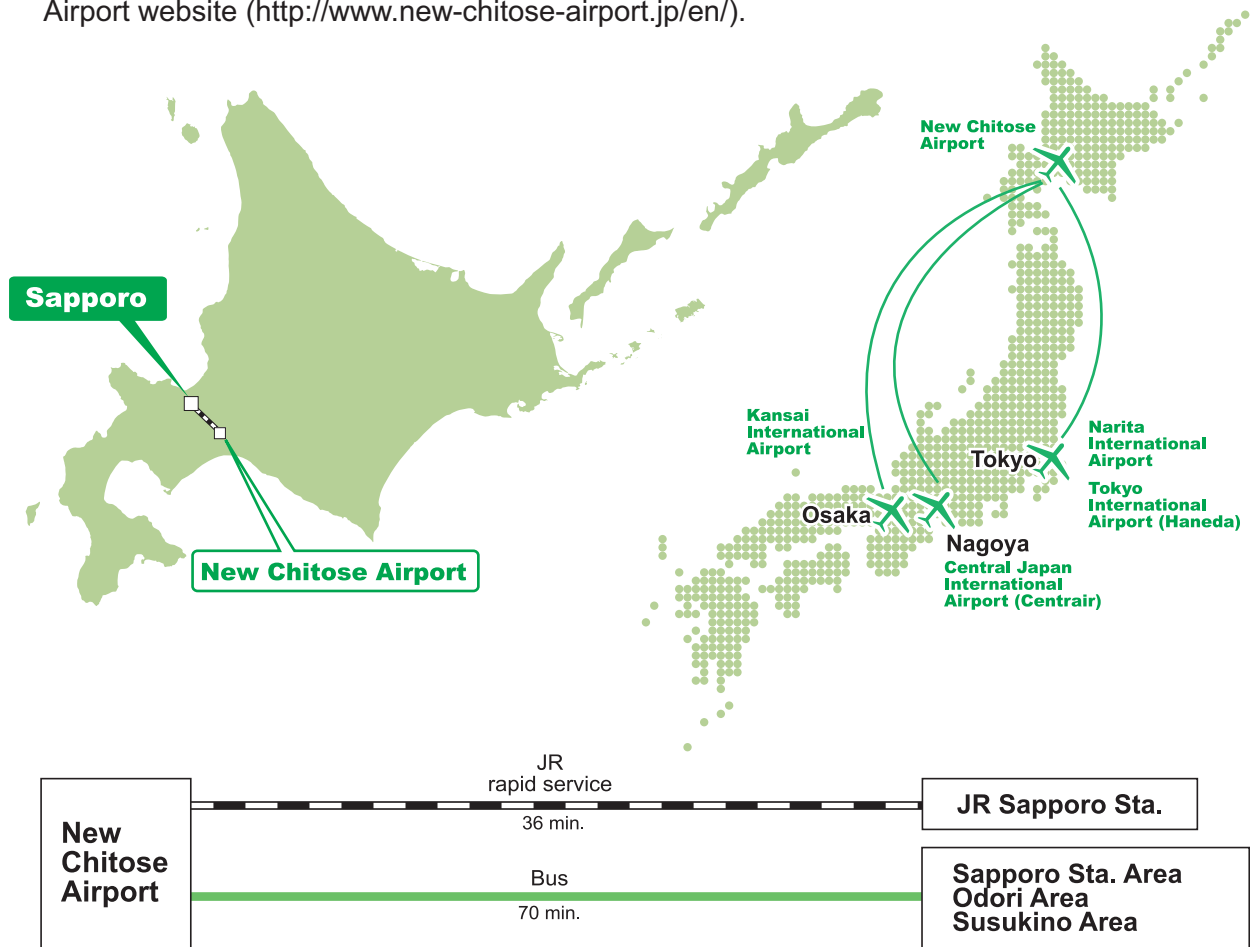
Fee Free of charge



Travel & Accommodation

Travelling to Sapporo

Sapporo is very easy to access from other parts of Japan as well as from overseas like Hongkong, Seoul, Taipei, Shanghai, etc.. Please find more detail information at New Chitose Airport website (<http://www.new-chitose-airport.jp/en/>).



Accommodation

Our official travel agency, JTB Hokkaido Corp., will offer you various kind of hotels in Sapporo listed in below. Application form is available at our website.

Hotel	Access	Type	Price (per room)
Keio Plaza Hotel Sapporo	5-minute walk from the south exit of JR Sapporo St.	Single	12,600 yen
		Twin	22,000 yen
Sapporo Aspen Hotel	2-minute walk from the north exit of JR Sapporo St.	Single	9,800 yen
		Twin	16,800 yen
Hotel Keihan Sapporo	4-minute walk from the west exit of JR SAPPORO St.	Single	8,800 yen
		Twin	16,800 yen
Best Western Hotel Fino Sapporo	2-minute walk from the north exit of JR SAPPORO St.	Single	8,800 yen
		Twin	15,000 yen
Hotel Route-Inn Sapporo Ekimae	1-minute walk from the north exit of JR SAPPORO St.	Single	7,800 yen
		Twin	13,600 yen

*All prices include breakfast, taxes and service charges.

Venue and Sapporo

City of Sapporo

Sapporo is Japan's 5th largest city with a population of 1.9 million, and the capital of Japan's northern island of Hokkaido. Only 150 years or so have passed since the pioneers first arrived, making it a relatively young city. Since the staging of the Winter Olympics in 1972, Sapporo has continued to develop into a truly international city, hosting various international events including the FIFA World Cup in 2002, the Ski Jumping World Cup, the Nordic World Ski Championships, and in 2017 is set to host the Asian Winter Games. Despite being a large metropolis, a short trip out to the suburbs reveals abundant natural scenery, where outdoor leisure activities such as hiking, canoeing and camping can be enjoyed. Each of the four seasons bring their own delights, and every year many tourists from both home and abroad visit the region, which is famous for being one of Japan's leading producers of delicious foodstuff. The city also ranks number one among the places Japanese people would like to live.

Venue

Conference Hall, Hokkaido University (Sep. 10-12)

Centennial Memory Hall, Hokkaido University (Sep. 10-12)

4th Floor, Sapporo Center for Gender Equality (Sep. 9)

Sapporo Grand Hotel (Sep. 11)



Co-Sponsors

Hokkaido Regional Development Bureau, Ministry of Land, Infrastructure and Transport and Tourism, Government of Japan

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City of Sapporo

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