

## Conference Programme

### Young Geotechnical Engineers Symposium 20 May 2019

08.30 - 10.00 Registration  
10.00 - 10.15 Opening Ceremony  
10.15 - 10.45 Keynote lecture

**Prof. Pauli Kolisoja**, Tampere University, Tampere, Finland  
Challenges Caused by the Combination of Increasing Traffic Loads and Climate Change

**Prof. Askar Zhussupbekov**, L.N. Gumilyov Eurasian National University, Astana, Kazakhstan  
Complex analysis of pile tests on LRT construction site in Astana

11.00 - 12.45 Session 1

Katharina Niggemann  
RWTH Aachen University, Geotechnical Engineering, Aachen, Germany  
«Investigation of frost heave considering the boundary conditions of artificial ground freezing»

Menal Zaheer, Anoosh Zaheer, Ali Hamza  
National Engineering Services Pakistan (NESPAK), Lahore, Pakistan  
«Use of Geoinformatics for Landslide Susceptibility Mapping. A Case Study of Murree, Northern Area, Pakistan»

Vladislav Yurkhanov, Dmitriy Serebryakov, Evgeniy Shavrin, Anastasia Konon  
Materials and Structures Test Center of JSC RZD, Emperor Alexander I St. Petersburg State Transport University, St. Petersburg, Russian Federation  
«Research on Frost Protective Layers for Railways»

Tatiana Vavrinyuk  
LLC «NIP-Informatics», Saint Petersburg, Russian Federation  
«Modelling thawing base of subgrade under permafrost»

Vladimir Ulitskiy, Sergey Alekseev, Stanislav Kondrat'ev  
Emperor Alexander I St. Petersburg State Transport University, St. Petersburg, Russian Federation  
«Experimental evaluation of the deformational calculation method of foundations for overpasses of high-speed railways»

Ivan Kozlov  
Emperor Alexander I St. Petersburg State Transport University, St. Petersburg, Russian Federation  
«Silica Sol in Transport Construction»

Antonina Sakharova, Maria Shershneva, Ivan Kozlov

Emperor Alexander I St. Petersburg State Transport University, St. Petersburg, Russian Federation

«Geocoprotective Technological Solutions for Road Construction and Operation in Cold Regions»

Dmitry Gura, Grettel Shevchenko, Yury Dubenko, Evgeny Dyshkant, Nafset Khusht

Kuban State Technological University, Krasnodar, Russian Federation

«Three-dimensional laser scanning for safety of transport infrastructure with application of neural network algorithms and methods of artificial intelligence»

Anzhelika Kuznetsova

«Use of stabilizing geogrids with layers of foamed materials in railway and highway structures»

13.45 - 15.15 Session 2

Liuxin Chen, Meng Wang, Yuqing Zhang, Yuanjie Xiao

«Finite element modeling of responses of high-speed railroad track considering foundation nonlinearity and environmental effects»

Timofei Tkachuk

Emperor Alexander I St. Petersburg State Transport University, St. Petersburg, Russian Federation

«Behavior modeling of geosynthetic material in the piled embankments grillage»

Pavel Kotov

«Technogenic Hazards of Russian North Railway»

Meng Wang, Xu Li, Zhenya Liu

«A model test study on frost heave of unsaturated soil based on PIV technology»

Assel Tulebekova, Askar Zhussupbekov, S.N. Nurakov, Ye. Ashkey

«Pile testing regarding ASTM and Kazakhstan standards»

Alexey Kolos, Vera Alpysova, Grigoriy Osipov, Irina Levit

Emperor Alexander I St. Petersburg State Transport University, St. Petersburg, Russian Federation

«The Effect of Different Additives on the Swelling Process of Heavy Clays»

Mikhail Samokhvalov, A. Geidt, A. Paronko

«Analysis of the settlement of new construction drill-injection pile with broadening at the end in silty-clayed soils»

Alexey Kiselev

«Stamp tests on operating highway, strengthened with geogrid»

15.00 - 15.30 Closing Ceremony

15.30 - 18.00 Social event

**21 May 2019**

08:00-09:00	Registration
09:00-09:30	Opening Ceremony (Chair – A. Petriaev, Assembly hall)
09:30-11:45	Keynote Lectures: The best presentation of Young Geotechnical Engineers Symposium, Y. Lai, G. Doré, M. Ziegler (Assembly hall)
11:45-12:00	Exhibition opening
12:00-12:45	Lunch, exhibition visits
12:45-15:00	Keynote Lectures: E. Tutumluer, X. Zhang, E. Ashpiz (Assembly hall)
15:15-19:00	Bus trip to Tsarskoye Selo
19:00-21:00	Welcome Cocktail

### **Keynote Lectures**

#### **The best presentation of Young Geotechnical Engineers Symposium**

**Acad. Yuanming Lai**, Chinese Academy of Sciences, Beijing, China

Experimental and numerical analyses for the frost heaving mechanism and prevention technologies of high-speed subgrades in seasonally frozen regions

**Prof. Guy Doré**, Department of Civil and Water Engineering, Laval University, Quebec City, Quebec, Canada

Thermal stabilisation of embankments built on thaw sensitive permafrost

**Prof. Martin Ziegler**, RWTH Aachen University, Geotechnical Engineering, Aachen, Germany

Application of the artificial freezing method in geotechnical and tunnelling applications

**Prof. Erol Tutumluer**, Chair of TC202, ISSMGE, University of Illinois at Urbana-Champaign, USA

to be announced

**Prof. Xiong Zhang**

Use of Wicking Geosynthetics to Mitigate Frost Action in Cold Regions

**Prof. Evgeny Ashpiz**, Russian University of Transport (MIIT), Moscow, Russia

The problems of the railway subgrade construction in the subarctic part of the Russian cryolithozone, and the ways of their solution

**22 May 2019**

9:00-11:00	Keynote Lectures: Z. Yang, J.Liu, I. Sakharov, E.C. Shin (Assembly hall)
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**Prof. Zhaohui Yang**, University of Alaska, Anchorage, USA  
Thaw settlement and mechanical properties of stabilized frozen soil

**Prof. Jiankun Liu**, Sun Yat-Sen University, Guangzhou, China  
Cooling the Permafrost Base for High Speed Railway in Tibet

**Prof. Igor Saharov**, Saint-Petersburg State University of Architecture and Civil Engineering, Saint-Petersburg, Russian Federation  
Numerical Simulation of the Work of a Low-settlement Embankment on a Pile Foundation in the Process of Permafrost Soil Thawing

**Prof. Eun Chul Shin**, Vice-President Asia, ISSMGE, Incheon National University, South Korea  
Frost Heaving Pressure and Stiffness of Compacted Roadbed Material by Laboratory Model Test

11:00-11:15	Coffee Break, exhibition visits		
11:15-13:00	<u>Session 1</u> Assembly hall	<u>Session 2</u> Conference hall (7-227)	<u>Session 3</u> room 3-221
13:00-14:00	Lunch, exhibition visits		
14:00-15:45	<u>Session 4</u> Assembly hall	<u>Session 5</u> Conference hall (7-227)	<u>Session 6</u> room 3-221
15:45-16:00	Break, exhibition visits		
16:00-17:45	<u>Session 7</u> Assembly hall	<u>Session 8</u> Conference hall (7-227)	<u>Session 9</u> room 3-221
18:00-20:00	Dinner (Oak hall 1-230)		

**23 May 2019**

9:00-10:45	<u>Session 10</u> Assembly hall	<u>Session 11</u> Conference hall (7-227)	<u>Session 12</u> room 3-221
10:45-11:00	Coffee break, exhibition visits		
11:00-12:45	<u>Session 13</u> Assembly hall	<u>Session 14</u> Conference hall (7-227)	<u>Session 15</u> room 3-221
12:45-13:45	Lunch, exhibition visits		
13:45-15:30	<u>Session 17</u> Assembly hall	<u>Session 18</u> Conference hall (7-227)	<u>Session 19</u> room 3-221
15:30-15:45	Break, exhibition visits		
16:00-16:30	Closing Ceremony (Chair – A. Petriaev, Assembly hall)		
16:45-18:30	River cruise "Rivers and Canals of St. Petersburg"		