



TC207 ISSMGE «Soil-Structure
Interaction and Retaining Walls»
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THE SECOND BETANCOURT CONFERENCE

The International Conference on Soil-Structure Interaction Calculations of TC 207 ISSMGE

«Non-linear Soil-Structure Interaction Calculations»

On April 15 2022 the Second Betancourt Conference was convened in St. Petersburg organized by TC 207 ISSMGE “Soil-structure interaction, retaining walls”, N.M.Gersevanov Research Center of Construction (Moscow) and the Institute “Georeconstruction” (St. Petersburg) with contribution of the Russian Society for Soil Mechanics, Geotechnics and Foundation Engineering, The Union of Architects of St. Petersburg and Emperor Alexander I St. Petersburg State Transport University.

At the Second Betancourt Conference in the format of video conference there were discussed the relevant issues of soil-structure interaction calculations taking into account non-linear and rheological properties of soils and structures which solution is impossible without a synthesis of engineering knowledge in the field of geotechnical engineering and design of superstructures

The Second Betancourt Conference was held in the year of the 90th anniversary of the head think-tank of the Russian construction industry - N.M.Gersevanov Research Center of Construction, therefore the leading experts of the institute were invited.

70 experts from Russia, Egypt, Spain, Singapore took part in the Second Betancourt Conference.

The Conference was opened by A.G.Shahskin (“Georeconstruction”) and V.M. Ulitsky (long-term co-chair of TC -207). They described the formation of the national school of engineering founded by A. Betancourt.

The special presentation was made in commemoration of Victor G. Fedorovsky, the largest national expert in the field of soil mechanics (N.M.Gersevanov Research Center of Construction) It was delivered by I.A.Bokov, Fedorovsky’s disciple and subordinate.

The presentation of Victor Ong (Singapore) was devoted to studying pipe jacking induced ground movements caused by the installation of an underground water pipe across an Expressway.

Fang Liu (China) pondered on pullout behaviour of strip anchor plates embedded in marine hydrate bearing sediments.

K.G.Shashkin TC 207 co-chair (Georeconstruction) reported on the prospects of soil-structure interaction calculations in design practice.

Yasser Moghazy El-Mossallamy (Egypt), a long-term member of TC 207, spoke on the design of the 100 km Monorail in Cairo.

The presentation of academician Vladimir I. Travush (Vice-President of the Russian Academy of Architectural and Civil Engineering Sciences) and S.O.Shulyatiev (the Russian

Academy of Architectural and Civil Engineering Sciences) was devoted to interaction of a slab with deformed subsoil.

Igor V. Kolybin (Director of N.M.Gersevanov Research Center of Construction) and Andrei V. Skorikov (head of laboratory N.M.Gersevanov Research Center of Construction) delivered the presentation on the topic: Sensitivity of non-linear models. Should it be taken into account?

Vladislav A. Vasenin ("Georeconstruction") dealt with the calculation of long-term settlements of buildings and structures in soft soils.

Dmitry E. Razvodovsky (Deputy Director of N.M.Gersevanov Research Center of Construction) told us about geotechnical aspects of design at dramatic changes of technical solutions for superstructures.

Ignacio Menendez Pidal (Spain) spoke on influence of viscous additives on properties of heavy clayey soils.

Stanislav O. Shulyatiev (Deputy Director of N.M.Gersevanov Research Center of Construction) considered calculation of foundation subsoil taking into account non-linear soil properties.

A series of presentations was dedicated to account of non-linear behavior of superstructures interacting with soil. They included the presentation of Valeria V. Bakrysheva ("Georeconstruction") and Igor I. Sakharov (St. Petersburg State University of Architecture and Civil Engineering) on methods of a large-panel building-soil interaction calculation and Nikolai A. Evseev ("Georeconstruction") "Evaluation of admissible deformations of brick buildings at soil-structure interaction calculation".

The presentation of Roman B. Orlovich ("Georeconstruction") was devoted to a case study - behavior of underground concrete tanks in the conditions of unstable subsoil.

Evgeniy V. Fedorenko (the company NIP-Informatika) described interpretation of the results of triaxial and compression tests of soft soils.

In conclusion there was the virtual technical tour "DEVELOPMENT OF DIFFERENTIAL SETTLEMENTS OF ST. ISAAC CATHEDRAL" conducted by A.G.Shahskin and V.A.Vasenin ("Georeconstruction").