

Minutes of the 12th EFUC Round Table

19.10.-21.10.2007

St. Petersburg State University for Architecture and Civil Engineering (SPbGASU),
Ulica 2-ya Krasnoarmeyskaya 4

Participants:

Dipl.-Ing. J. Raclavsky, CzSTT, WSDTI, CZ; Dr. J. Raclavsky, TU Brno, CZ; Ing. M. Horak, TU Brno, CZ; Prof. Dr. C. Madryas, TU Wroclaw, PSTT, PL; Dr. R. Kolonko, TU Wroclaw, PL; Dr. R. Bielecki, Chairman WSDTI, Chairman EFUC, D; Prof. Dr. D. P. F. Möller, University of Hamburg, WSDTI, D; Dipl.-Ing. D. Redwanz, Ingenieurbüro, D; Ing. J. F. Maregiano, JFM Conseils, F; Prof. Dr. V. Bauer, TU Kosice, SK; Dipl.-Ing. Stefan Marlind, Herrenknecht AG, S; Dr. M. Bayerl, bayerl-consult, A; Dipl.-Ing. A. Dowe, Evonik, D; Dipl.-Ing. R. Büssing, Ingenieurbüro, D; Ing. P.P. Bessolov; Ingenieurbüro, Tula, Russ; Prof. Dr. V. Vasilyev, University St. Petersburg, Russ; Ms. Olga Sanjarovskaya, MC Bauchemie, RUS; Ms. Margarita Gineva, Managing Director POST, RUS; Prof. Dr. Mikhail I. Alexeev, University St. Petersburg, Russ; Prof. Valeriy I. Morozov, University St. Petersburg, Russ; Dipl.-Ing. F. Vasilyev, University St. Petersburg, Russ
Students of St. Petersburg State University for Architecture and Civil Engineering

Agenda:

Friday, October 19, 2007 (day before)

Meeting at the State University for Architecture and Civil Engineering (SPbGASU) in St. Petersburg, Ulica 2-ya Krasnoarmeyskaya 4 (Metro station "Technologitscheskij Institute") with representatives of the public management, municipal economy, science, economy and students.

1:00 pm

Welcome by

- Prof. Valeriy I. Morozov, Vice Rektor St. Petersburg University of Architecture and Civil Engineering
- Prof. Victor Vasilev, Head Water and Sewage Works, St. Petersburg University of Architecture and Civil Engineering
- Dr. Rolf Bielecki, Chairman EFUC/WSDTI

1:30 pm

Session 1

- Presentation of SPbGASU
- International Contacts and projects of SPbGASU
- Research projects water and sewage in Russia
ca. 200 km waste water system in St. Petersburg, 1.2 – 5.4 m Ø, deeply located pumping stations, new waste water system with tunnel system 75 m depth below river Neva, length of tunnel 12,5 km, realization as so called air Düker with 12 inlets, supports north part of the city

2:30 pm

Visit of construction sites:

- shaft building site 431 with participation of the company Herrenknecht AG; approx. 65 m deep, machine constructed shaft (Ø 8,40 m) for a sewage tunnel; excavation of material with a so called ring shaft drilling system, continuously sinking by 1 m
- inlet shaft building
- Waste water Treatment Plant of the City of St. Petersburg
Hydraulic Model of Air Düker

Saturday, October 20, 2007

10:00 am

Session II

- Ecological impact of underground construction methods: A methodology for evaluating and decision making
Dr. R. Bielecki, Germany
- Project ORFEUS-Optimized Radar to Find Every Utility in the Street -

Dr. J. Raclavský, Czech Rep - Information <http://www.orfeus-project.eu>
– Safety risks and tunnelling systems
Prof. Dr. V. Bauer, Slovakia

11:30 am

Coffee Break

12:00 am

Session III

– Automatic sinking of deep shafts below groundwater level
Dipl.-Ing. S. Marland, Sweden
– Ventilation of deep caverns and tunnel
Dr. M. Bayerl, Austria
– Production of deep depths > 1,000 m for final subterranean storage of highly radioactive waste in solid rock and for power production
Prof. Dr.-Ing. D. P. F. Möller and Dr. R. Bielecki, Germany

1:45 pm

Lunch Break

2:45 pm

Session IV

– New VESTAMID® (Polyamide 12) grades to manufacture products with large geometrical dimensions for oil and gas applications
Dipl.-Ing. A. Dowe, Dr. C. Baron, Dipl.-Ing. R. Buessing, Germany
– State of the art rehabilitation techniques of sewers in St. Petersburg
Prof. Dr. V. Vasilev, Russia
– Latest conclusions for the operation of house sewage systems by installation of reactors (Solid body reactors with oxygenation)
Dipl.-Ing. D. Redwanz, Germany

5:00 pm

Coffee Break

5:30 pm

Session V

– X International Conference Underground Infrastructure of Urban Areas 2008, WROCLAW 22 - 24.10.2008
Prof. Dr. C. Madryas and Dr. R. Kolonko, Poland
– Effective Geothermal Utilization close to the Surface by the TT-Geothermal Radical Drilling (GRD-) Method
Dr. H.-J. Bayer, Deutschland und Dipl.-Ing. J. Raclavský, Czech. Rep.

6:30 pm

Closing of day program

8:00 pm

Conference Dinner

Sunday, October 21, 2007

10:00 am

Final discussion including information regarding the preparation of International EFUC conferences
Prof. Dr.-Ing. D.P.F. Möller/Dr. R. Bielecki
– Welcome Dr. Rolf Bielecki
– International Geotechnical and Environmental Study – EGEC
Actual Situation: Erasmus Mundus Partner University Sites reduced from 5 to 2 + 1. New partner Sites TU Wroclaw, TU Miskolc and University of Strathclyde, UK
Prof. Dr. V. Bauer, Slovakia
– Discussion of Environmental Engineering and Ecology for study programs in Geo-Technology and the impact for students studying Geo-Technology and Environmental Engineering with the specialization on Underground Engineering
– St. Petersburg in charge with launching the Bologna process into its University. Actual Situation: Engineer, Aspirant and Doctoral Student. Is interested I collaboration.

– New Program EMMEC (Erasmus Mundus Mineralogy and Environmental Course) must have 40 Participants from Countries of the EU Member States and 40 Participant from abroad countries. Main Coordinator for this Program is TU Wroclaw.

More over three of the former five partner sites, Prof. Wolf TU Berlin, Prof. Burow TU Freiberg, and Prof. Bauer Kosice, offer Seminars at the old partner sites, Prof. Wolf and Prof. Burow at TU Wroclaw and Prof. Bauer at TU Miskolc

– St. Petersburg actually is developing a study program focused on the management of critical situation in order to achieve human safety in underground and over ground buildings.

– WSDTI - Research projects in preparation and development

Dr. R. Bielecki, Prof. Dr. D.P.F. Moeller; Germany

- Realization of deep depth based on the Litho-Jet method in collaboration with TU Kosice, Slovak Republic
 - Thermal shock investigation in granite rock, nuclear waste repository location selection analysis
 - Development of criteria for the nuclear waste repository location selection process, acquisition of funding of a pre-study by governmental funds
 - Science has to be aware its responsibility
 - Kosice Resolution, important for nuclear waste repository location selection analysis in rock like salt, tuff, granite
- Ecological classification of building methods in collaboration with Ruhr University Bochum, Germany, funded by Bundesumweltstiftung
 - Important for daily use in civil engineering
 - Statements for new buildings
 - Statements for reconstruction
- Geothermal energy: can existing tunnel buildings be used for generating geothermal energy, making use of the tunnel wall
- Energy generation in different areas
- Dynamic of the underground in salt rock based on NURBS and VR methods
- ANN as early warning system for real time flood forecasting for the Omo river in Southern Ethiopia
- Early warning system for buildings e.g. in case of threshold passing

– EFUC sponsored Conference in Kielce, Poland, April 9.-11., 2008

– X International Conference Underground Infrastructure of Urban Areas 2008, WROCLAW, 22 - 24.10.2008

– 4. International EFUC Conference, Lüneburg, Germany, Fall 2008

– 5. International EFUC Conference, Brno / Czech Republic, April 13. - 19., 2009 supported by ISTT, CzSTT, EFUC in conjunction with Brno Fair

– Simulation analysis' for traffic tunnel tubes passing the Bosphorus to achieve the information how to build the tunnel tubes without any effect on the tunnel in case of big ship breakdowns
did not effect tunnel safety.

Dr. Bayerl

– Journal BI contain paper with the topic corrosion avoidance in concrete with the help of thin glass folios. Presentation of the Institute for Underground Infrastructure Gelsenkirchen, D, and its research activities and possible cooperations.

Dr. Bielecki

– Closing remarks and Thanks, addressed to Prof Vasilev, University of St. Petersburg

Dr. Bielecki

– Thanks to EFUC and that participating students of University of St. Petersburg had great pleasure attending this conference. Current

situation is the students from St. Petersburg University of Architecture and Civil Engineering find good jobs on the market, there are no jobless people in this area in St. Petersburg. Interested in collaboration with Prof. Möller in modeling based on seismic data due to the new Olympic area of Soice for the coming winter games.

- Conference contributions will be published in the Journal POST and on the EFUC website.

Noon End of 12th EFUC Round Table

Prof. Dr.-Ing. Dietmar P. F. **Möller**
St. Petersburg, October 21, 2007