



## Preliminary Program

3<sup>rd</sup> EFUC International Conference

# Dimensions of Lithosphere

Strategies for Disposal of Nuclear Waste in Europe  
Geothermal Energy

Technical University of Košice, Slovak Republic  
January 29-31, 2007

**Monday, January 29, 2007**

**13:30**

**Opening / Welcome Address**

Rector Dr. h.c. mult. Prof. Ing. Juraj Sinay, DrSc., TU Košice

Opening and Welcome Address

Minister of Economy Doc. Ing. Lubomir Jahnateck, CSc, SK

(Welcome Address)

Minister of Ecology Ing. arch. Jaroslav Izak, SK

(Welcome Address)

Mayor of the City of Košice Ing. Frantisek Kanpik, SK

Welcome Address

District President (KSK) JUDr. Zdenko Trebula, SK

Welcome Address

Musical Presentation of Collegium Technicum

**14:45 – 15:00**

**Coffee Break**

**15:00 – 18:00**

**Plenary Session**

Chair: SK (N.N.); Co-Chair: D (N.N.)

1. Plenary Lecture  
The Lithosphere - Chance for the Mankind  
Felix Sekula, Tobias Lazar, TU Košice, SK
2. Plenary Lecture  
The Storage of High Radioactive Waste from the Slovak Point of View  
Tibor Mikus', SK
3. Plenary Lecture  
The Storage of High Radioactive Waste from the European Point of View  
Simon Webster, EC
4. Plenary Lecture  
Geothermic – Energy Source of the Future ?  
Franz Peren, D
5. Plenary Lecture  
Techniques for the Development of Geothermic  
Pavol Rybar, TU Košice, SK
6. Plenary Lecture  
Why Nuclear Power Plants ? There are other Solutions available !  
N.N.

**20:00 – 23:00**

Gala Diner Hotel Slovan with Ensemble Jahodna (Male Choir and Folk Dance)

**Tuesday, January 30, 2007**

**Session 1:**

**9:00 – 12:00**

Chair: SK (N.N.); Co-Chair: D (N.N.)

- 9:00 -9:20 Strategies for Disposal of Nuclear Waste in Europe  
J. Mikšova, L. Pospíšil, L. Kučera, K. Martinek, J. Rejl, J. Slovák, SK
- 9:20-9:40 Storage of High Radioactive Nuclear Waste in Germany  
Dietmar P. F. Möller, University of Hamburg, D
- 9:40-10:00 Properties and Development of the Middle European Lithosphere: Reality and Ideas  
Milos Suk, SK
- 10:00 – 10:30 Coffee Break
- 10:30 – 10:50 State of the Art in Germany – Nuclear Waste Disposal Research in Salt Host Rock  
Berndt Brewitz, GRS Final Storage Safety Research Braunschweig, D
- 10:50 – 11:10 Gas Permeation for Dilatant Deformation of Rock Salt under Deviatoric Stress Conditions  
Günter Pusch, TU Clausthal, D
- 11:10 – 11:30 Effects of Engineering Geology Conditions onto the Construction of Caverns for Radioactive Waste  
Jozef Kuzma, Luboš Hruštinec, SK
- 11:30 – 12:00 Discussion of Presentations of Session 1
- 12:00 – 14:00 Lunch

**Session 2:****14:00 – 17:30** Chair: D (N.N.); Co-Chair: CZ (N.N.)

- 14:00 – 14:20 Mining of Radioactive Raw Materials as the Origin of the Nuclear Fuel Chain  
Bedřich Michálek, SK
- 14:20 – 14:40 Specific Geophysical Measures for the Selection of Nuclear Repositories  
Jaroslav Barta, Michal Tesař, Dušan Dostál, CZ
- 14:40-15:00 Dimensions of Lithosphere in Crustal Geological Areas  
L. Pospišil, J. Mikšova, M. Kovačik, SK
- 15:00 – 15:30 Coffee Break
- 15:30 – 15:50 Geomechanical Problems of an Underground Storage of Spent Nuclear Fuel and their Mathematic Modelling  
Radim Blaheta, Petr Byczanski, Richard Šnuparek, Antonin Hajek, CZ
- 15:50 – 16:10 Interdisciplinary Cooperation in Searching for Optimal Underground Storage for Nuclear Waste  
Juraj Durove, TU Košice, SK
- 16:10 – 16:30 New Method for Controlling Abandonment of Reinforced Concrete beside the Background of Reduction of Nuclear Waste Volume while Demolish Nuclear Power Plants  
Molnar, H
- 16:30 – 16:50 Utilization of Concrete as Construction Material in the Concept of Radioactive Waste Storing in Slovak Republic  
Igor Hudoba, SK
- 16:50 – 17:30 Discussion of Presentations of Session 2

**Session 3:****14:00 – 17:30** Chair: Franz Peren, D; Co-Chair: SK (N.N.)

- 14:00 – 14:20 Effective Surface Proximal Geothermal Utilization with the Geothermal Radial Drilling (GRD-) Method  
Hans-Joachim Bayer, D
- 14:20 – 14:40 Analysis of the Geothermal Potential of the Herlianskj Geisir in the Košice Region  
Dobra, SK
- 14:40 – 15:00 Hungarians' first Geothermic Power Plant Pilot Project without Thermal Impact onto Lake Heviz  
Boboc, H
- 15:00 – 15:30 Coffee Break
- 15:30 – 15:50 Geothermic in Poland  
(N.N.)
- 15:50 – 16:10 Technology for the Utilization of Deep Geothermal Reservoirs in Germany  
Ernst Huenges, D. Bruhn, GFZ Potsdam, D
- 16:10 – 16:30 Geothermic in France  
(N.N.)
- 16:30 – 16:50 Utilization of Thermal Energy of Mine Water from Flooded Underground Mines  
Bedřich Michálek, Daniel Holéczy, Petr Jelinek, Arnošt Grmela, SK

- 16:50 -17:10            General Overview of Geothermal Energy in Bulgaria  
Klara Bojadgieva, Vladimar Histov, Aleksey Benderev, BU
- 17:10 – 17:30            Discussion of Presentations of Session 3
- 20:00**                State Theatre, Opera Carmen from George Bizet

### **Wednesday, January 31, 2007**

#### **Session 4:**

- 9:00 – 12:20**            Chair: SK (N.N.); Co-Chair: D (N.N.)
- 9:00 – 9:20            Monitoring and Leak Testing of wwer-440 Fuel Assemblies in Slovak Wet  
Interim Spent Fuel Storage Facility  
V. Slugeň, M. Mikloň, B. Božík, D. Važina, SK
- 9:20 – 9:40            Economic Evaluation of the Litho-Jet Method Based on the Actual Planning  
Rolf Bielecki, WSDTI, D
- 9:40 – 10:00            Hydrogen Technique as Main Energy Source of the Future ?  
(N.N.)
- 10:00 – 10:30            Coffee Break
- 10:30 – 10:50            Vertical Shaft Machines – State of the Art and Vision  
Peter Schmäh, Herrenknecht, D
- 10:50 – 11:10            Future Development of the Litho-Jet Method  
Tobias Lazar, Szertemey, TU Košice, SK
- 11:10 – 11:30            Investigation of a Multibarrier System for Underground Storage of Nuclear  
Waste  
Viliam Bauer, Felix Sekula, Marian Sofranko, TU Košice, SK
- 11:30 – 11:50            Safety Aspects in Association with Radioactivity, especially with Nuclear Waste  
(N.N.)
- 11:50 – 12:20            Panel Discussion „Košice Resolution“
- 12:20 – 12:30**            Closing Session

Accepted Papers will be published in Acta Montanistica Slovaca