

## ORGANIZERS

The workshop is a **Milos Conferences** event.

**Milos Conferences** is a function of the "Milos Conference Center - George Eliopoulos", a non-profit organization, located on the island of Milos, Greece.

**Milos Conferences** consist of different conference series, each devoted to a general subject. The conferences are held normally every two or three years and they are open to all scientists, whether from academia or industry.

**Heliotopos Conferences** is responsible for the practical organization of the workshop and all relevant issues.

## MILOS CONFERENCES PARTNER



S&B Βιομηχανικά Ορυκτά Α.Ε.  
S&B Industrial Minerals S.A.

## SPONSORS



ΥΠΟΥΡΓΕΙΟ  
ΕΘΝΙΚΗΣ ΠΑΙΔΕΙΑΣ  
ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ

Greek Ministry of Education  
and Religious Affairs



Technical University  
of Crete



## SCIENTIFIC COMMITTEE

Zach AGIOUTANTIS, Technical University Crete, (GR) - Chair  
Kostas KOMNITSAS, Technical University Crete, (GR) - Co-Chair  
Nikos ARVANITIDIS, IGME, (GR)  
W. Lee DANIELS, Virginia Polytechnic Institute and State University, (US)  
Gyorgy DEAK, R&D National Institute for Metals and Radioactive Resources, (RO)  
Stefania DEAK, R&D National Institute for Metals and Radioactive Resources, (RO)  
P. Dan GEORGESCU, R&D National Institute for Metals and Radioactive Resources, (RO)  
Martha GROSSOU - VALTA, IGME, (GR)  
Michael KARMIS, Virginia Polytechnic Institute and State University, (US)  
Athanasios KEFALAS, S&B Industrial Minerals S.A., (GR)  
Daoliang LI, China Agricultural University, (CH)  
Ioannis PASPALIARIS National Technical University of Athens, (GR)  
Pavlos SKYLITZIS, Public Power Corporation S.A., (GR)  
Anthimos XENIDIS National Technical University of Athens, (GR)  
Dimos TRIANTIS, Technological Educational Institute of Athens, (GR)

## LOCAL ORGANIZING COMMITTEE

Zach AGIOUTANTIS, Technical University Crete  
Athanasios KEFALAS, S&B Industrial Minerals S.A.  
Kostas KONSTANTINIDIS, Heliotopos Conferences  
Rena KOUMANTOU, S&B Industrial Minerals S.A.  
Emmanuel J. VOULGARIS, Milos Conference Center - George Eliopoulos – Chair

## SECRETARIAT

### *Heliotopos Conferences*

Address: 28, Ypsilantou str.  
GR-17236, Dafni-Athens, Greece  
Phone: +30 210 9730697  
Fax: +30 210 9767208  
E-mail: [geoenv2008@heliotopos.net](mailto:geoenv2008@heliotopos.net)  
<http://milos.conferences.gr/geoenv2008>

## Conference Program

### SUNDAY, 7 SEPTEMBER 2008

- 17:00 Registrations  
17:30 Guided Technical visit to S&B Plant  
20:30 Welcome reception at the Conference Center

### MONDAY, 8 SEPTEMBER 2008

08:45 - 09:00 Opening: **Welcoming addresses**

#### SESSION 1

09:00 - 11:00 **Development in geotechnical issues**

*Chairs: Z. Agioutantis, J. Loredó*

Stability computation of a complex salt structure using the DKRControl method  
*Gy. Deák, St.E. Deák, I. Andras, Z. Seprodi*

Rock mass classification in underground bauxite mines - Fokida  
*E. Koufetzis, I. Kousis, N. Christou*

Spectral signature of ultrasonic attenuation profiles for rock characterization  
*P. Kolettas, S. Vogiatzi, Z. Agioutantis*

Sulfate-induced swelling on lime treated soils  
*I.E. Zevgolís*

Subsidence prediction over longwall mining – Parametric investigation of the influence of overburden stratigraphy  
*Z. Agioutantis, H. Papantoni, P. Viopoulos*

Charge transport phenomena in rock products subjected to stress up to fracture  
*I. Stavrakas, C. Anastasiadis, K. Ninos, D. Triantis*

11:00-11:30 **Coffee**

#### SESSION 2

11:30-13:00 **Developments in geotechnical issues-Modelling**

*Chairs: Gy. Deák, R. Ciccu*

Reliability assessment of unpaved reinforced roadways  
*W.-C. Huang, P.L. Bourdeau, I.E. Zevgolís*

3D Terrain Modelling of the Amyntaio – Ptolemais Basin  
*G. Argyris, I. Kapageridis, A. Triantafyllou*

The evaluation of natural and anthropic hazards on the stability of the hydrosalt complex in Costiui, Romania  
*S. Zaharia, B.V. Driga*

Finite element simulation of global changes in the rock mass when backfilling the mine workings with waste  
*K. Pietruszka*

Modeling of shearer cutterhead to reduce energy consumption  
*S. Dinescu, A. Andras, I. Andras*

Artificial intelligence in longwall support effectiveness assessment  
*I. Andras, Gy. Deák, V. Iordachita*

13:00-14:30 **Lunch**

**MONDAY, 8 SEPTEMBER 2008** (continued)

**SESSION 3**

**14:30-16:30 Modern Environmental Technologies-Risk Assessment**

*Chairs: V. Dentoni, I. Andras*

Permeable reactive barrier installation with high velocity waterjet

*R. Ciccu, M. Cigagna, B. Grosso, P. Tronci*

An environmentally compatible gold project: the Perama Hill case (N. Greece)

*G. Falalakis, G. Markopoulos*

The contamination containment in the industrial area of Portovesme (Italy)

*B. Grosso, M. Cigagna, P. Tronci*

Extraction of Th<sup>4+</sup> from industrial effluents by liquid emulsion membrane

*J.Z. Cheng, Y.B. Hou, L.P. Che*

Comparison of lignite reserves estimates in the multilayer deposit of the Amyndeo mine

*A. Pavlides, D.T. Hristopoulos, Z. Agioutantis, K. Kavouridis, Ch. Roumpos*

Fate of nitrate and phosphate through agricultural sub-soil environment

*B.M. Sadashiva Murthy, H.S. Ramesh, M. Mahadevaswamy*

**16:30-16:45 Coffee**

**SESSION 4**

**16:45-18:45 Mine-Quarry Rehabilitation**

*Chairs: G. Gaidajis, B. Grosso*

An overview of post mining land uses in Asturias (Northern Spain)

*J. Loreda, P. Cienfuegos*

Restoration of an inactive quarry by seeding herbaceous species on a thin layer of fertile soil

*A. Kyriazopoulos, E.M. Abraham, Z.M. Parissi, C.N. Tsiouvaras*

Abandoned quarry sites and applied rehabilitation solutions

*G. Konstantopoulou, E. Hagiou, K. Giannouchos, N. Chlykas, K. Gakis*

Visibility of surface excavation and impact assessment

*V. Dentoni, G. Massacci*

Energy and environmental policy: Two sides of the same coin. The approach of coal extraction industry for the development of emissions trading after 2012

*K. Kavouridis, M. Galetakis, F. Pavloudakis, A. Filiou*

**20:30 Workshop Dinner at "Alevromilos" restaurant**

**TUESDAY, 9 SEPTEMBER 2008**

**SESSION 5**

**09:00 - 11:00 Waste Management-Sustainable Development**

*Chairs: St.E. Deak, F. Filios*

A quick sustainability assessment of an industrial facility

*G. Gaidajis*

Geochemical stability of slag-based inorganic polymers in several environments

*D. Zaharaki, K. Komnitsas, G. Bartzas*

Life cycle assessment and performance of posts treated with water borne preservatives and oils

*A.N. Papadopoulos, I.A. Kakaras*

Utilization of waste dumps of Public Power Corporation S.A. in Megalopolis Lignite Centre

*G. Triantafyllou, L. Patmanidou, A. Stasinakis, I. Tsolas, A. Gkagka*

**TUESDAY, 9 SEPTEMBER 2008 (continued)**

Ecological footprint of aggregate transport in urban areas

*A. Athousaki, Z. Agioutantis, K. Komnitsas*

Heliothermal saline lakes formed by collapsed salt mines as a heliothermal power source

*B.V. Driga, S. Zaharia*

11:00-11:30 **Coffee**

**SESSION 6**

11:30-11:45 Presentation by S&B Industrial Minerals S.A., Milos Conferences Partner

*A. Kefalas*

**POSTER**

**SESSION**

11:45 13:30 *Chairs: I. Stavrakas, I.E. Zevgolis*

Expert tool for minimizing the impact of mining wastes on the environment

*St.E. Deak, Gy. Deak, V. Iordachita, D.E. Radu*

TCP-based smart sensors integration in hazardous area applications

*M. Risteiu, I. Andras, Gy. Deak, Z. Seprodi*

Storage options for dangerous wastes in Romanian mining spaces

*V.Iordachita, M. Georgescu, Gy. Deak*

Studies on mechanical properties and influence of structural defects of Cu-Mo composite materials obtained by the PVD method

*V.G. Grechanyuk, V.A. Denisenko, L. Orac*

Wear- resistance of the WC- Co alloys used for short chip materials cutting

*S. Constantinescu, T. Radu, L. Orac*

Mining areas ecological rehabilitation under the economical restructuring

*I. Dumitrescu, I. Andras, Gy. Deak, St.E. Deak, P. Marinescu*

Removal of PAHS and PCBS from contaminated soil

*T.H. Udayashankara, K.S. Lokesh, I.K. Shivaraj, N.T. Manjunath*

Bioremediation methods

*Gh. Crutu, C. Manea, G. Groposila, D. Curelea*

Ecological remediation of contaminated soils

*C. Manea, Gh. Crutu, G. Groposila*

Air sparging optimization for remediation of MTBE and TBA contaminated sites

*M.I.M. Darwish*

Magnetic susceptibility mapping of the municipal park in Chania (Crete, Greece)

*E. Kokinou, V. Saltas, M. Kavousanakis, M.E. Egglezou, F. Vallianatos*

Developing computational groundwater monitoring and management system for Estonian oil shale deposit

*H. Lind, K. Robam, I. Valgma, K. Sokman*

Failure risk assessment for the Romanian uranium mining waste dumps

*St.E. Deak, Gy. Deak, I. Dumitrescu, M. Lazar, M.S. Gaman*

Radioactive index, gamma spectrometry

*I. Pordea, C. Manea, Gh. Crutu, G. Ilie, I. Robu*

13:30 **Lunch**