

Welcome to MPES

Sixteenth International Symposium on Mine Planning and Equipment Selection (MPES2007) and the Tenth International Symposium on Environmental Issues and Waste Management in Energy and Mineral Production (SWEMP2007)

December 11-13, 2007, Royal Orchid Sheraton Hotel & Towers, Bangkok, Thailand

Dear Colleagues,

We are inviting you to participate in a joint meeting of MPES and SWEMP. Both of these symposia have come to be recognized as leaders in promoting international technology transfer.

Of these two symposia, MPES has been more global having being held in the past in several countries including Brazil, Czech Republic, Poland, India, Turkey, Greece, Italy, Canada and Australia. In 2008 MPES will be held in China.

This time over 100 papers will be presented over a three-day period. Major topics to be covered include:

- Advances in Mine Design & Computer Applications
- Rock Mechanics & Geotechnical Issues
- Mine Evaluation, Financial, Management Planning, Education & Training
- Mine Equipment Selection, Maintenance & Innovative Mining Systems
- Environmental & Processing Technologies

Our plenary session, luncheon speakers and banquet speakers are leaders in their own fields. These few pages provide you with their biographies and a summary of the technical program.

For further details please consult the symposium website at <http://www.mpes-cami-swemp.com/>

Yours truly

Dr. Raj Singhal

TECHNICAL PROGRAM

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TUESDAY, DECEMBER 11, 2007
BALLROOM 1

9:00-12:40 **JOINT PLENARY SESSION; MPES/SWEMP 2007**

Introduction **Dr. Raj K. Singhal**

9.00-10:40 **Chairs:** **Professor Raimondo Ciccu**
University of Cagliari, Italy

Speakers; **Ir. MM.Winardi**
Senior Vice President, Pongkor Gold mine-
Gold Business Unit-PT ANTAM Tbk, Indonesia

Mr. Guntis Pukitis
State Secretary of Ministry of Environment, Republic of Latvia

Professor Vladimir Kebo
Vice –rector, Technical University of Ostrava

V.S. Rao
Managing Director, VBC Industries Ltd, India

Dr. Adam P. Jarvis
University of Newcastle,U.K

10:40-11:00 **Coffee Break**

11:00-12:40 **Chairs:** **Professor Richard Poulin**
University of Laval, Canada

Speakers: **Dr. Marie Vrbova**
Partner, R-PRINCIP Most Ltd, Czech Republic

Professor Sevket Durucan
Imperial College, London

Professor Uday Kumar
University of Lulea, Sweden

Professor Zhenqi Hu
China University of Mining & Technology (Beijing)

Professor Y. Paul Chugh
Southern Illinois University, USA

12:45-13:50 **Lunch**

Lunch Speakers: **Professor Per Nicolai Martens**
RWTH Aachen University, Germany

Introduced By: **Prof. George N Panagiotou**
National Technical University of Greece

TUESDAY, DECEMBER 11, 2007
RIVERSIDE #5 ROOM

14:00-15:30 Session 1 – Advances in Mine Design & Computer Application
Chairs: Dr. Dilip Nag, Australia

1. Modular Concept for Dynamic Mine Planning and Production Control Supported by Virtual Reality
M.Kressner, S. Paessler, C Drebenstedt, Institut Fur Berbau und Spezialtiefbau, TU Bergakademie Freiberg, Freiberg, Germany
2. Excavation Activities and Potential Resource Deposits: Case Histories in Thailand
Sanga Tangchawal (Chulalongkorn University), Thailand
3. Economic Simulation Analysis Model of Selective Underground Mining Methods
Jozef Szymanski and Stefan Planeta (University of Alberta), Canada
4. Financial evaluation of Sungun Copper Project using DCF method
K. Oraee (UK), F. Rashidinejad and B. Asi, Iran

15:30-16:00 Coffee Break

16:10–17:30 Session 2 - Advances in Mine Design & Computer Applications
Chair: Professor Sanga Tangchawal, Thailand

1. Lignite Mining in Germany in the Area of Conflict Between Ecology and Economy
Frank Schippers (RWE Power AG), Germany
2. A New Approach for Decision Making Based Genetic Algorithm in Mining Operations
Atac Bascetin (Istanbul University), Turkey
3. Improvement of the Methodical Provision of Calendar Planning of Mining and Transport Works on Open-Pits
Galiyev S. Zh., Boyandinova A.A., Boyandinova Zh.A, Mining Institute after D.A. Kunayev NC CPMR RK, Almaty, Kazakhstan

19:00-21:00 Reception – Embassy Garden

TUESDAY, DECEMBER 11, 2007
RIVERSIDE #6 ROOM

14:00-15:30 **Session 3 - Rock Mechanics and Geotechnical Issues**
Chair: Dr. Steven Rupprecht, South Africa

1. Prediction of Ground Vibration and That Relation with Specific Charge in some of Iran's Copper Mines

Morteza Osanloo and Habib Aliasghari, (Amirkabir University of Technology), Iran

2. Effect of Flyash Type on Fluidability of Flyash Cement

Hideki Shimada, Takashi Sasaoka, Kikuo Matsui, Masatomo Ichinose, Shuichi Fujita, Jan Gottfried, Masuhiko Iino, Yasuhiro Yoshida (Kyushu University), Japan

3. Risk Assessment of Pillars Loading Capacity Under Rock Dump in Estonian Mine "Viru"

Sergei Sabanov, Jyri-Rivaldo Pastarus, Oleg Nikitin, and Erik Vali (Tallinn University of Technology), Estonia

15:30-16:00 **Coffee Break**

16:10-17:30 **Session 4: Rock Mechanics and Geotechnical Issues**
Chair: Professor Ernest Baafi, Australia

1. Effect of Tunneling From Slope Wall on the Slope Stability

Kikuo Matsui, Takashi Sasaoka, and Hideki Shimada, Japan

2. Remote Operation and Maintenance Support Services: A Conceptual Framework

Tore Markeset, Rajesh Kumar, Uday Kumar, University of Stravanger, Stavanger, Norway., Aker Kvaerner, Stravanger, Norway., Lulea University of Technology, Lulea

3. Study on Correspondence Between Output Voltage of Cable Censer for Vibration Detection and Velocity

Yuki Kudo, Youhei Kawamura, Ken Oumura, Hirokazu Okawa, Koichi Mizutani (University of Tsukuba), Japan

19:00-21:00 **Reception – Embassy Garden**

TUESDAY, DECEMBER 11, 2007
RIVERSIDE #7 ROOM

14:00-15:30 **Session 5 - Mine Equipment Selection, Maintenance & Innovative Mining Systems**

Chairs: Dr. Atac Bascetin, Turkey
Professor Mircea Georgescu, Romania

1. The Surface Miner Sustainable Oil-shale Mining Technology Testing Results in Estonia
Oleg Nikitin, Erik Vali, Sergei Sabanov and Jyri-Rivaldo Pastarus (AS Eesti Polevkivi), Estonia
2. “One Stop Shopping – Au Alternative Purchase Option”
Marinus Jozef Pouls DBT Mining Engineers GMBH, Germany
3. Strategies for Dragline Rope Life Extension
Daya Dayawansa, (Monash University), Mahinda Kuruppu(Curtin University of Technology) and Fidelis Mashiri (University of Tasmania), Australia
4. Project Argon: Applying field Collected stress data to develop a new generation of lighting
Urbain du Plessis (Hella Australia Pty Ltd), Australia

15:30-16:00 **Coffee Break**

16:10 – 17:30 **Session 6 - Mine Equipment Selection, Maintenance & Innovative Mining Systems**

Chairs: Professor Kadri Dagdelen, U.S.A.

1. Fully Mobile In Pit Crushing Systems in Open Pit Mines
Detlev L. Schroeder (ThyssenKrupp), Germany
2. Work Conditions in Transition - A Study of Work Culture and Gender Issues in a Changing Technical Context
Jan Johansson and Professor Lena Abrahamsson (Luleå University of Technology), Sweden
3. Gyro Stabilised Vertical Opening Inspection and Surveying System
James Langdon and Andrew Jarosz (Western Australian School of Mines, Curtin University of Technology), Australia

19:00-21:00 **Reception – Embassy Garden**

WEDNESDAY, DECEMBER 12, 2007
RIVERSIDE #5 ROOM

09:00 – 10:30 Session 7 - Advances in Mine Design & Computer Application
Chairs: Professor Ludger Overmeyer, Germany

1. Mine Plan Design and Equipment selection for Development Ramp Down L.450 Ciurug, PT. Antam Tbk- Pongkor Gold Mine Business Unit
Sukristiyawan, and Dedy Samsudin (PT. Antam Tbk- Pongkor Gold Mine Business Unit), Indonesia
2. New Type of Hydraulically Driven Rotation and Feed System for Drill Rig
R.Y. Poderni, M.R. Chromoy, V. F. Sandalov (Moscow State Mining University (MSMU), Russia
3. The Automated System of Dispatching of Excavator-Railway Complex Work on Open-Pit - "Adis-RT
Galiyev S.Z., Astrahantsev V.A., Bektureev A.S., Ivanov K., Sejtaev E.N., Shabelnikov Ye. A., Zhusupov K.K., Tatishev E.N.
4. Planning and Design of Medium-Sized and Small Deposits of Non-Ferrous Metals Mining in Kazakhstan
Abdurassul Zharmenov, Vera Muzgina, Alma Terlikbayeva, and Saule Myrzaliyeva (National Center on Complex Processing of Mineral Raw Materials of the Republic of Kazakhstan), Kazakhstan

10:30 – 10:50 Coffee Break

11:00 – 12:30 Session 8 - Advances in Mine Design & Computer Application
Chairs: Dr. Gento Mogi, Japan
Professor Roman Y. Poderni, Russia

1. Redesigning Sill Pillar at Central Block Level 500 (L500) Ciurug Mine of Pongkor Gold Mine, PT. Antam Tbk
Ery Budiman, Agus Sudharto, Achmad Ardianto (Pongkor Gold Mine), Indonesia
2. Economic Comparison of Drilling Systems in Sublevel Stoping Method
K Oraee, Professor, Stirling University, UK, AH Bangian PhD Student, Azad University, Iran
3. Large Scale Multi-Mine Scheduling Optimization
Kadri Dagdelen and Kazuhiro Kawahata (Colorado School of Mines), United States
4. Planning for the New Developments at a Copper-Molybdenum Mine in Armenia
Javad Sattarvand, Christian Niemann-Delius (Aachen University) and Johannes H. Tacke, (IfB Mining Consultants), Germany

12:30-13:50 Lunch

Luncheon Speakers: Professor Hilary I. Inyang
Duke Energy Distinguished
Professor & Director, University of North Carolina

Introduced By: Professor Kostas Fytas
University Laval

14:00 – 15:30 Session 9 - Advances in Mine Design & Computer Application
Chair: Dr. Enrique Rubio, Chile

1. A Prototype Holistic Cutoff Grade Model for Porphyry Coppers
F. Rashidinejad (Islamic Azad University), M. Osanloo (Amirkabir University of Technology), B. Asi (Kavoshgaran Consulting Engineers), Iran
2. Analysis of Influence of Mineral Complex use Level on Conditions of Solid Minerals Resources
B.R. Rakishev, A.A. Lisenkov, E.B. Rakishev., Kazak National Technical University, Almaty, Kazakstan
3. *ARENA Simulation of Continuous Lignite Excavation Systems*
T.N. Michalakopoulos, C. Roumpos, and G.N. Panagiotou (National Technical University of Athens), Greece

15:30 – 16:00 Coffee Break

16:10 – 17:30 Session 10 - Advances in Mine Design & Computer Application
Chair: Marinus Pouls, Germany

1. Technical Feasibility Studies-Mine Planning, Geological Modelling and Geotechnical Evaluation for Hong Sa (Lao People's Democratic Republic) and Mae Moh (Thailand) Open Pit Mines
Ludwig Hofmann (RWE Power International) Germany
2. Comparison of Pit optimization and Mining Scheduling in Jalal-Abad Iron Ore Deposit Performed by NPVS+ and Whittle 4X
Behrang Farshadi and M. Ghiasi (Kavoshgaran Consulting Engineers), Iran
3. Strategic Planning of Aggregate Quarrying
Maria Menegaki (National Technical University of Athens), Greece
4. Mine Water Management in Pongkor Underground Gold Mine, Bogor, Indonesia
Rudy Sayoga Gautama &Ginting Jalu Kusuma, Fitra Ismaya Bandung Institute of Technology, Bandung, Indonesia

19:00**Banquet****Speakers:****Mr Zou Jian**

President, Metallurgical Mining Corporation, China

Mr. Ivan Montenegro de Menzies

CVRD, Brazil

Introduced By:**Dr. Raj K. Singhal****Ms. Sirintorn Jongsiri**

WEDNESDAY, DECEMBER 12, 2007
RIVERSIDE #6 ROOM

09:00 – 10:30 Session 11 - Rock Mechanics & Geotechnical Issues
Chair: Professor Kikuo Matsui, Japan

1. Application of Injection Material for Offshore Structure Using Flyash-Surfactant Mixtures
Hideki Shimada, Yasuhiro Yoshida, Masuhiko Iino, Takashi Sasaoka, Kikuo Matsui, Masatomo Ichinose, Shuichi Fujita, Masakazu Mineshita and Tatsuya Mizunuma (Kyushu University), Japan
4. Monitoring of Vibrations from Blasting: An Experimental Case
Marilena Cardu and Alessandro Giraudi (DITAG, Politecnico di Torino), Italy
5. Fundamental Study on Controlling Size of Fragmentation and Blast Vibration at Limestone Quarry
Takashi Sasaoka, Hideki Shimada, Masatomo Ichinose, and Kikuo Matsui (Kyushu University), Japan
6. Iron Ore Exploitation in Brazilian Hillsides Submitted to Permanent Environment Protection
Adilson Curi, Escolas de Minas, UFOP, Brazil

10:30 – 10:50 Coffee Break

11:00 – 12:30 Session 12 - Rock Mechanics & Geotechnical Issues
Chair: Professor Vera Muzgina, Kazakhstan

1. Plain Water Jet Noise Emission: Effect of Stand-Off Distance Variation
Giorgio Massacci, A. Bortolussi, V. Dentoni, I. Mulas (DIGITA - Univ. di Cagliari), Italy
2. Main Principles of Open-Pits Geotechnologic Systems Sustainable Development
Galiyev S.Zh., Boyandinova A.A., Boyandinova Zh.A., Bagirov K.Sh. (Mining Institute after D.A. Kunayev NC CPMR RK) and Zhusupov K.K., Tatishev E.N. (JSC Kostanay Minerals) Kazakhstan
3. Effect of Sodium Silicate on Physical and Mechanical Behavior of Mine Backfill
Ferri Hassani, Mehdi Razavi and Ike Isagon (Department of Mining and Materials Engineering, McGill University), Canada
4. Acid Mine Drainage and Slaking Behavior at Tanjung Enim Coal Mine in Indonesia
Jiro Oya, Hideki Shimada, Takashi Sasaoka, Masatomo Ichinose, Kikuo Matsui (Kyushu University), Japan

12:30-13:50 Lunch

Luncheon Speakers: Professor Hilary I. Inyang
 Duke Energy Distinguished
 Professor & Director, University of North Carolina

Introduced By: Professor Kostas Fytas
 University Laval

14:00 – 15:30 Session 13 - Rock Mechanics & Geotechnical Issues
Chairs: Professor Marilena Cardu, Italy
Engineer Bahareh Asi, Iran

1. Design of a Long Term Permanent Support System for an Existing Drainage Tunnel at Eli Mine in Turkey

L. Tutluoğlu, C. Karpuz and A. Kocal (Middle East Technical University), Turkey

2. Potash Mining in Thailand - Backfill Materials and Technologies

Manoon Masniyom (TU Bergakademie Freiberg), Germany

3. Technical Feasibility Studies-Mine Planning, Geological Modelling and Geotechnical Evaluation for Hong Sa (Lao People's Democratic Republic) and Mae Moh (Thailand) Open Pit Mines

Ludwig Hofmann (RWE Power International) Germany

15:30 – 16:00 Coffee Break

16:10 – 17:30 Session 14 - Rock Mechanics & Geotechnical Issues
Chair: Professor Chung-In Lee, Seoul Korea

1. Industrial Hygiene in Underground Mines: Using a Software to Teach Sampling Strategy *Wilson Iramina, Sergio Eston, Ivan Tachibana and Andre Beltrame (University of Sao Paulo), Brazil*

2. Road Support: Solutions for Deep Underground Coal Mining
Max Thomas Stöttner (DSK Anthrazit Ibbenbüren GmbH) and Christian Buhrow (Technische Universität Bergakademie Freiberg) Germany

3. Management of Aquifer Depressurization System
Dilip Nag and Jayantha Fernando (Monash University), Australia

4. Continuous Modelling of Open Pit Dynamics
Hooman Askari-Nasab and Jozef Szymanski (University of Alberta), Canada

19:00 Banquet
Speakers: Mr Zou Jian
 President, Metallurgical Mining Corporation

Mr. Ivan Montenegro de Menzies
 CVRD, Brazil

WEDNESDAY, DECEMBER 12, 2007
RIVERSIDE #7 ROOM

09:00 – 10:30 **Session 15 - Mine Equipment Selection Maintenance & Innovative Mining Systems**
Chair: Dr. Martin Kesting, Germany

1. Remote Sensing Systems for Coal Mining Automation and Safety
Ludger Overmeyer, and B. Steyer (Leibniz University of Hanover), Germany
2. Development of a Downtime Event Capturing System for an Oilsands Processing Plant for Reliability Improvements
Robert Hall (University of British Columbia), Pieter Oranje (Albian Sands Energy Inc.), Mark de Jager (Albian Sands Energy Inc.), Canada
3. Innovative Method to Recover and Recycle the Technological Materials Used in Dimension Stones Processing
Enrica Michelotti and Marilena Cardu (DITAG, Politecnico di Torino), Italy
4. Determination of the Conveyor Belt's Resistance to Rolling on Idlers
Mirosław Bajda and Monika Hardygora (Wrocław University of Technology), Poland

10:30 – 10:50 **Coffee Break**

11:00 – 12:30 **Session 16 - Mine Equipment Selection Maintenance & Innovative Mining Systems**
Chairs: Detlev Schroeder, Germany
Professor: Jozef Szymanski, Canada

1. Path Following and Task Control of Unmanned Wheel Loader
Noriho Koyachi, Shigeru Sarata, Kazuhiro Sugawara (AIST), Japan
2. Mechanical Vibration Transmitted by Hand-Held Power Tools in Mining and Construction Sites
V. Dentoni and G. Massacci (Department of Geoenvironmental and Environmental Technologies, University of Cagliari), Italy
3. Development of Technologies with Using of Conveyor Systems for Deep Opencasts of Kazakhstan
Askar Dyussebayev, Yermek Sapakov, and Dias Bukeikhanov (Kazakhmys Corporation), Kazakhstan
4. Detection of Location and Shape of Pile for Unmanned Loading Operation by Wheel Loader
Shigeru Sarata, Noriho Koyachi, and Kazuhiro Sugawara (AIST), Japan

12:30-13:50**Lunch**

Luncheon Speaker: **Professor Hilary I. Inyang**
 Duke Energy Distinguished
 Professor & Director, University of North Carolina

Introduced By: **Professor Kostas Fytas**
 University Laval

14:00 – 15:30**Session 17 - Mine Equipment Selection Maintenance & Innovative Mining Systems**

Chairs: **Dr. Nuray Demirel, Turkey**

1. Non-Stationary Operation Condition Analysis by Instantaneous Speed Monitoring for Mining Machines Diagnostics

Radoslaw Zimroz (Wroclaw University of Technology), Poland

2. Development of Mine Dredging Systems

Carsten Drebenstedt and Volker Patzold., TU Bergakademie Freiberg, Germany

3. Geographic Information Systems (GIS) Usage in Open-pit Mine Planning

Tansel Dođan and Kerem Kapar (Istanbul University), Turkey

15:30 – 16:00**Coffee Break****16:10 – 17:30****Session 18 - Mine Equipment Selection Maintenance & Innovative Mining Systems**

Chair: **Dr. Emmanuel Chanda, Australia**

1. SIMT Sensory Identification of the Material Type and Detection of the Interfaces

Martin Kesting, L. Overmeyer, and K. Jansen (Leibnitz University of Hanover)

2. Dynamic Modeling of a Dragline Front-End and Boom Stress Analysis for Efficient Excavation

Nuray Demirel (Middle East Technical University) and Samuel Frimpong (University of Missouri-Rolla), United States

3. Role of Peripheral Speed of Diamond Wire Saw Machine in Cutting of Dolomitic Marble Stones

Er. S.C. Jain and S.S. Rathore., Maharana Pratap, University of Agriculture and Technology, Udaipur, India

4. Automation: A Blessing or a Curse? Transferable Lessons for the Mining Industry

Eleonora Widzyk-Capehart (CSIRO - Queensland Centre for Advanced Technologies), Australia

19:00**Banquet****Speakers:****Mr Zou Jian**

President, Metallurgical Mining Corporation

Mr. Ivan Montenegro de Menzies

CVRD, Brazil

Introduced By:**Dr. Raj K. Singhal****Ms. Sirintorn Jongsiri**

THURSDAY, DECEMBER 13, 2007
RIVERSIDE #5 ROOM

09:00 – 10:30 Session 19 - Environmental & Processing Technologies
Chair: Dr. Mahinda Kuruppu, Australia

1. The Experimental Equipment and Its Automation for Underground Coal Gasification
Karol Kostúr (Technical University, Faculty of Mining, Ecology, Control and Geotechnics), Slovakia
2. Desalinization of Stone Facades, Constructions and Monuments
Ivan Tomasic (University of Zagreb), Croatia
3. Development of an Environmentally Friendly Technology for the Carbonization of Low Rank Coal and Biomass
C. Wirtgen, D. Gajic, J.P. Gerling, and S. Schmidt (RWTH Aachen University), Germany

10:30 – 10:50 Coffee Break

11:00 – 12:30 Session 20 - Environmental & Processing Technologies
Chair: Ladislav Hanuska, Czech Republic

1. Silica Sand Production in Croatia
Branko Salopek, Ivan Sobota, and Gordan Bedekoviæ (University of Zagreb), Croatia
2. Mining of Brown Coal and Reclamation Methodology in North Western Bohemia Region
M. Rehor (Research Institute of Brown Coal) V. Ondracek (North Bohemian Mines), H. Lorencova (Most Coal Company), Czech Republic
3. Dependence of Dust Emission From Cutting Parameters in Hard Rock
Carsten Drebenstedt and Qang Van Phan (TU Bergakademie Freiberg), Germany

12:30 – 13:30 Lunch

14:00 – 15:30 Session 21 - Environmental & Processing Technologies
Chair: Professor. K. Oraee, UK

1. Development of a Process Integration Tool for an Iron Ore Upgrading Process System
Samuel Nordgren, Bo Lindblom, Stefan Savonen, Mikael Larsson (Luleå University of Technology and PRISMA), Sweden
2. Role of Cost-Benefit Analysis in Evaluation of Acceptance of Mineral Raw Materials Exploitation on the Environment
Damir Rajković (Faculty of Mining, Geology and Petroleum Engineering), Croatia
3. Innovative Methods to Deal With Acid Mine Drainage
Pratap K. Tandia and Dr. B.K. Pal., National Institute of Technology, Rourkela, India
4. Natural Radioactivity of Dimension Stone
Karl-Jochen Stein (NIS), Germany

15:30 – 16:00 Coffee Break

16:10 – 17:30 Session 22 - Environmental & Processing Technologies
Chair: Dr. Maria Menegoki, Greece

1. Quarrying, Processing and Application of Carpathian Cretaceous Sandstones in Moravian Region in the Czech Republic
Pavel Pospisil (Brno University of Technology)
2. Clean and Efficient Use of Coal to Ensure the Sustainable Development of China's Energy Strategy of Reliance on Coal
Linxia Guo and Zhenqi Hu (Institute of Land Reclamation and Ecological Reconstruction, China University of Mining and Technology), China
3. The Effects of Blending Ratio on the Yields of the Co-Pyrolysis Products of Lignite and Rapeseed
Özlem Onay and Ö. Mete Koçkar (Anadolu University), Turkey

17:30 - Symposium Closure.

THURSDAY, DECEMBER 13, 2007
RIVERSIDE #6 ROOM

09:00 – 10:30 **Session 23 - Advances in Mine Design & Computer Applications**
Chair: Professor. Morteza Osanloo, Iran

1. Impacts of Out of Seam Dilution on Clean Coal Quality
Amit Patwardhan, Abinash Moharana, Yoginder P. Chugh (Southern Illinois University), United States
2. Automation on Arresting Dust in Opencast Coal Mines
M. K. Panda and Dr. B. K. Pal (National Institute of Technology, Rourkela), India
3. A Chance Constrained Integer Programming Model for Open Pit Long-Term Production Planning
Javad Gholamnejad (Yazd University), Iran
4. Reliability modeling supporting mine design and mine planning decisions
Enrique Rubio, Universidad de Chile, Chile

10:30 – 10:50 **Coffee Break**

11:00 – 12:30 **Session 24 - Advances in Mine Design & Computer Applications**
Chairs: Dr. Gavin Lind, Australia
Professor Sanga Tang Chawal, Thailand

1. Key Aspects of Underground Nickel Mining In Greece
Andreas Benardos (National Technical University of Athens), Greece
2. An Optimization Algorithm to Assess Different Resource Models for Open Pit Short Term Planning
Julián M. Ortiz, Enrique Rubio, and Juan L. Yarmuch (University of Chile), Chile
3. Non-Traditional Utilization of Uranium Deposits After Underground Mining Completion
Nada Rapantova, Arnost Grmela, Bedrich Michalek, Jan Unucka, David Vojtek (VSB – Technical University of Ostrava), Czech Republic
4. Truck Dispatching - Optimization of Truck Assignments for Open Pit Mine Operations.
Kadri Dagdelen and Songwut Artittong (Colorado School Mines), United States

12:30 – 13:50 **Lunch**

14:00 – 15:30 Session 25 - Advances in Mine Design & Computer Applications
Chairs: Dr. B.K. Pal, India
Dr. Satya Pal Bindra, Libya

1. Mining the LG6 Chromitite Layer - A Case Study

Steven Rupprecht, (RSG Global), South Africa

2. Designing of Mine Shafts

Isadore Matunhire (University of Pretoria), South Africa

3. Application of Weibull and Power Law Models in an Oil sands Processing Plant for Reliability Improvements

Junrong Du (University of British Columbia), Robert Hall (University of British Columbia), Pieter Oranje (Albian Sands Energy Inc.), Mark de Jager (Albian Sands Energy Inc.), Canada

4. Lowwall Stability Analysis, A Case Study at Gatotkaca Coal Open-Pit, PT Arutmin Indonesia Satui Mine, South Kalimantan, Indonesia

Budi Sulistiano, Ridho K. Wattimena, Irwandy Arif, Muhchamad S. Sulaiman, and Widhy S. Sudirman (Institute of Technology), Indonesia

15:30 – 16:00 Coffee Break

16:10 – 17:30 Session 26 - Advances in Mine Design & Computer Applications
Chair: Dr. Javad Gholamejad, Iran

1. Possibilities for Storing Radioactive Waste in Romanian Underground Mining Spaces

Mircea Georgescu and Grigore Buia (University of Petrosani), Romania

2. Intelligent Data Analysis of Operational Conditions of Earth Moving Machinery

Marek Reformat, Adam Pedrycz, and Jozef Szymanski (University of Alberta), Canada

3. Estimation of Strength Properties of Filing Massif with Using of SURPAC Geoinformation System

A.I. Prokhodov, V.V. Gamulka, V.I. and Muzgina V.S., Kasakstan

4. Development of the Mining Education Australia (MEA) Program

Gavin Lind and Trish Andrews (WASM, Curtin University of Technology), Australia

17:30 - Symposium Closure.

THURSDAY, DECEMBER 13, 2007
RIVERSIDE #7 ROOM

09:00 – 10:30 **Session 27 - Mine Evaluation, Financial Management Planning & Education & Training**
Chair : **Dr. Robert Hall, University of British Columbia, Canada**

1. Management and Minimization of Loss Circulation in Oil and Gas Well Drilling: A Case Study
Satya Pal Bindra, Ibrahim Ben Younis, M. Babs, Oye Neyin, Mohamed Naser (IEF), Libya
2. Real Option Theory and Some Key Points for Using it in Mining Industry
Afshin Akbari Dehkharghani and Morteza Osanloo (Islamic Azad University), Iran
3. Mathematical Model to Decide Strategies in Mining Operations
Behrang Farshadi and B. Asi (Kavoshgaran Mining Engineers), Iran
4. Predicting Time of Mine Crew Evacuation in Case of Underground Fire
Andrzej Strumiński and Barbara Madeja-Strumińska, (Technical University of Wrocław), Poland

10:30 – 10:50 **Coffee Break**

12:30 – 13:30 **Lunch**

14:00 – 15:30 **Session 28 - Mine Evaluation, Financial Management Planning & Education & Training**
Chair: **Dr. Assiya A. Boyandinova**

1. Technology of Working Trench Cutting By Dragline with Limited Dimensions
Bayan Rakishev, S. Moldabayev, G. Irgebayev, N. Shulayeva, Zh. Khammetova (Kazakh National Technical University), Kazakhstan
2. Detection of Underground Object using Giant-Magnetostriction Vibrator to Support for Plumbing Construction
Eui Seong Ha, Youhei Kawamura, Hirokazu Okawa, Michinori Asaka, Koichi Mizutani (University of Tsukuba, Graduate School of System and Information Engineering), Japan
3. Relative Efficiency Modeling of Drilling Systems in Sublevel Stopping Method by Data Envelopment Analysis (DEA)
Amir Hossein Bangian Tabrizi and K. Oraee, Iran

15:30 – 16:00 **Coffee Break**

**16:10 – 17:30 Session 29 - Mine Evaluation, Financial Management Planning & Education
& Training
Chair: Professor Christian Buhrow**

1. Rock Cutting Using an Abrasive Suspension Water Jet

Chung-In Lee, Jung Gyu Kim and Song Soo Han (Seoul National University), Korea

2. Safety Aspects of Manriding in Czech Deep Mines

Jaromir Polak, VSB-technical University of Ostrava, Czech Republic

17:30 - Symposium Closure.