

Thursday, November 30, Conference Room A

Technical Sessions

10:40-11:55 Underground Mine & Rock Engineering

Zoom URL: <https://zoom.us/j/91679268929?pwd=Mm41TFoza2lXUVc5S01YRkjhUjZZQT09>

Chairperson: Takashi Sasaoka, Kyushu University, Japan

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|-------------|---|---|
| 10:40-10:55 | Surface Subsidence Prediction Using Numerical Method, Cased Study of Longwall Mining In Indonesia | Ali Husain TAHERDITO, Budi SULISTIANTO, Tri KARIAN, Nuhindro Priagung WIDODO |
| 10:55-11:10 | Study on Crown Pillar Design in Transition from Open Pit Mining to Underground Mining in Sepon Mine, Laos | Tatsuki Inoue, Takashi Sasaoka, Seelae Phaisopha, Shimada Hideki, Akihiro Hamanaka |
| 11:10-11:25 | Stope Probabilistic Assessment using Monte Carlo Simulation Based on Potvin's Empirical Stability Criterion | Mohammad Army, Tri Karian and Firly Rachmaditya Baskoro |
| 11:25-11:40 | Study of the Effects of Internal and External Uncertainty on Reserve Value in Gold Mining Project Development Using Cut and Fill Method | Fadhila Achmadi Rosyid, Alamanda Aulia Az Zahra |
| 11:40-11:55 | Numerical Modeling of Triaxial Test Using Finite Difference Method with Hoek-Brown Failure Criterion | Muthia Nabila Tsamara FIRTANIA and Ridho Kresna WATTIMENA |

11:55~13:40

Lunch

13:40-15:10 CO₂ & Ventilation

Zoom URL: <https://zoom.us/j/91679268929?pwd=Mm41TFoza2lXUVc5S01YRkjhUjZZQT09>

Chairperson: Takehiro Esaki, Kyushu University, Japan

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|-----------------------|--|---|
| 13:40-13:55
Online | Effects of Aquifer Ions on the Grouting Performance of the CO ₂ -Induced Silica Gel | Ichhuy Ngo, Xiaobin Zhai |
| 13:55-14:10 | Study on soil CO ₂ flux for monitoring of stored CO ₂ leakage from subsurface | Yuto Komatsu, Yuchi Sugai and Takehiro Esaki |
| 14:10-14:25 | An Integrated Simulation Method for Ground Source Heat Pump Design | Arif Widiatmojo, Akira Tomigashi |
| 14:25-14:40 | Study on the Underground Coal Fire — Surface Carbon Flux Response Mechanism under Complex Conditions | Yongjun Wang, Hemeng Zhang, Qian Zheng, Wei Dong, Xiaoming Zhang, Yuichi Sugai, Kyuro Sasaki |

14:40-14:55 Analysis of Ventilation Heat Control in Cut and Fill Underground Mine Working Area

Nuhindro Priagung Widodo, Lachlan Arya Rhaditya , David Andrew Purba, Fadli Zaka Waly, Ahmad Ihsan, Jianwei Cheng, Satria Rum Syachran, Taruna Fadillah, Halumi Nur Khamidah

14:55-15:10 Analysis of Air Quantity and Temperature Conditions in the Long Mine Development Tunnel Using Computational Fluid Dynamics

Fadli Zaka Waly, Nuhindro Priagung Widodo, Agung Limowa , Ahmad Ihsan, Agus Chandra Wibowo

15:10~15:30

Coffee Break

15:30-17:00 Water & Environment

Zoom URL: <https://zoom.us/j/91679268929?pwd=Mm41TFoza2lXUVc5S01YRkjhUjZZQT09>

Chairperson: Shinji Matsumoto, National Institute of Advanced Industrial Science and Technology, Japan

15:30-15:45 Application of graphical and statistical methodologies to determine geochemical processes in groundwater systems

Japhet Kanoti, Daniel Olago, Christopher Nyamai and Tabitha Githinji

15:45-16:00 Effect of Average Particle Size on Minimum Explosible Concentration of Subbituminous Coal Dust from The Muara Enim Formation in Laboratory

Dimas Agung Permadi, Nuhindro Priagung Widodo, Marlina Wahyunintan Putri, Salsabiela Firdausi, Fadli Zaka Waly, Ahmad Ihsan, Jianwei Cheng

16:00-16:15 Assesment of Primordial Radionuclides in Mamuju's Soil: Implication for Environmental Exposure and Human Health

Sherina Wijaya, Very Susanto, Eka Djatnika Nugraha

16:15-16:30 Assessment of Total Mercury Levels in soil and groundwater: Case Study Chami City and Its Environs in Mauritania

Mohamed Mamoune MAHA, Akito MATSUYAMA, Takahiko ARIMA, Atsushi SAINOKI

16:30-16:45 Online Exploration of organic materials for the growth medium of Ganoderma lucidum as a raw material for mycelium-based biomaterials

Juan Christhio, I Nyoman Pugeg Aryantha, Noor Rahmawati

16:45-17:00 Online Study on growth of *Artemisia princeps* under pyrite-bearing soil conditions at a mine-out site

Atsushi Kubo, Akihiro Hamanaka, Hideki Shimada, Takashi Sasaoka, Yuki Mizunoe, Norimitsu Hamaoka

17:00-18:00 Poster Session

18:30-20:00 Banquet

Friday, December 1, Conference Room A

Technical Sessions

9:00-10:00 Economic Geology

Zoom URL: <https://zoom.us/j/91679268929?pwd=Mm41TFoza2lXUVc5S01YRkjhUjZZQT09>

Chairperson: Akane Ito, Kyushu University, Japan

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| 9:00-9:15 | Petrography and Geochemistry Constraints on the Mode of Occurrence of Au in the Furutobe Kuroko Deposit, Akita, Japan | Manuel Nopeia, Ryohei Takahashi, Andrea Agangi, Hinako Sato, Pearlyn Manalo |
| 9:15-9:30 | Characteristic of Quartz Sand Material and Associated Minerals as By-Product of Alluvial Tin Processing in Bangka and Belitung Islands, Indonesia | Shelia Dwi Utami, Mohamad Nur Heriawan, Nurulhuda Halim, Rubiarto, and Ichwan Azwardi |
| 9:30-9:45 | Prediction of Gold Ore Grade using Artificial Neural Network | Ntshiri B. Tsae, Tsuyoshi Adachi and Youhei Kawamura |
| 9:45-10:00 | Unleashing the power of AI in resource estimation | Nurassyl Battalgazy, Rick Valenta, Paul Gow, Carlos Spier, Gordon Forbes |

10:00~10:20

Coffee Break

10:20-11:50 Mineralogy & Remote Sensing

Zoom URL: <https://zoom.us/j/91679268929?pwd=Mm41TFoza2lXUVc5S01YRkjhUjZZQT09>

Chairperson: Arie Naftali Hawu Hede, Institute Technology Bandung, Indonesia

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|-------------|---|---|
| 10:20-10:35 | Geology and geochemistry of the Nkalonje Hill Carbonatite, Malawi; Insight of REEs mineralization potential | Denson Makwela, Denson Makwela, Akira. Imai, Kotaro Yonezo, Akane Ito |
| 10:35-10:50 | Geological outline and mineral assemblages of the Wigu Hill Carbonatite-related REE Deposits, Kisaki Area, Eastern Tanzania | Mutasingwa Almachius Tryphone, Akira Imai, Kataro Yonezu, Akane Ito |
| 10:50-11:05 | Mineralogical characteristics of gold mineralization at the Jim's Luck deposit, Tati Greenstone Belt, Botswana | Onameditse Lulu Seaba, Akira Imai, Kotaro Yonezu, Akane Ito and Kemmony Baliki |
| 11:05-11:20 | Distribution Map of Hydrothermal Alteration of Kuju-Iwoyama in Kyushu, Japan | Yuya Nakamura, Sachihito Taguchi, Kotaro Yonezu |
| 11:20-11:35 | Ore Mineralization and Fluid Inclusion Microthermometry in the Grasberg Porphyry Deposit, Papua, Indonesia | Yuki Ishikawa, Kotaro Yonezu, Akira Imai, Mega Rosana and Euis Yuningsih |

11:35-11:50 Remote Sensing Analysis of Lineaments and Gas Survey at El Hoyo-Monte Galan Geothermal Area, Central Western Nicaragua, Central America. **Lisbeth Herrera, Kotaro Yonezu, Akira Imai, Tatsuto Ino, Kelym Martinez**

11:50~13:00

Lunch

13:00-14:30 Coal & Gas

Zoom URL: <https://zoom.us/j/91679268929?pwd=Mm41TFoza2lXUVc5S01YRkjhUjZZQT09>

Chairperson: Nuhindro Priagung Widodo, Institute Technology Bandung, Indonesia

13:00-13:15 Effect of Low-Temperature Pyrolysis on Gas Content from Various Coal Ranks **Raden Maria Ulfa, Yuichi Sugai, Theodora Noely Tambaria**

13:15-13:30 Fundamental Study on the Effects of Water Injection on the Composition of Product Gas and the Reaction Temperature in Underground Coal Gasification **Rika Iriguchi, Akihiro Hamanaka, Takashi Sasaoka, Hideki Shimada, Ken-ichi Itakura, Jun-ichi Kodama, Gota Deguchi**

13:30-13:45 Effect of Substrate Ratios on Deer and Chicken Manure Co-Digestion for Biogas Production **Jayen Aris Kriswantoro, Chiung-Hao Tseng, Chen-Yeon Chu**

13:45-14:00 Online CHARACTERISTICS STUDY OF CLEATS IN THE "SEAMS D & E1" COALS OF THE MUARA ENIM FORMATION, TEGALREJO AREA, MUARA ENIM DISTRICT, SOUTH SUMATRA PROVINCE, INDONESIA. **Muhammad Kemal NAHROWI, Basuki RAHMAD, Muhammad Ardian NUSA, Irham YARHAMKA**

14:00-14:15 Online Geology and Coal Reserves Calculation with the Cross Section and Block Method in Pit Z of Mangkalapi Area, Kusan Hulu District, Tanah Bumbu Regency, South Kalimantan Province **Dita Antari SETYANINGSIH, Basuki RAHMAD, Benedikta Regina AMABEL, Rian Pradana Bayu AJI**

14:15-14:30 Online Geology and Estimation of Coal Resources Using the Cross Section Method in the Muaraenim Formation, Site Bangko PIT-E, Lawang Kidul, Muara Enim, South Sumatera, Indonesia **Muhammad Fauzan FAJARI, Basuki RAHMAD, Daffa AYYASY, Irham YARHAMKA**

14:30~14:50

Coffee Break

14:50-16:20 Geology

Zoom URL: <https://zoom.us/j/91679268929?pwd=Mm41TFoza2lXUVc5S01YRkjhUjZZQT09>

Chairperson: Mohamad Nur Heriawan, Institute Technology Bandung, Indonesia

14:50-15:05 Online Preliminary study on Subsurface Soil Mapping based on Geotechnical Engineering Properties in Tuol Kouk District, Phnom Penh City, Cambodia **Chanrithi Sak Ran, Sanglong Kaing, Sophea Boeut, Peou Sieng, Hong Nong, Oudom Sokly, Veasna Sok, Mony Norn, and, Vicheka Van**

15:05-15:20 Geotechnical Property Mapping in Khan Boeng Keng Kang, Phnom Penh, Cambodia **Oudom Sokly, Sophea Boeut, Sanglong Kaing, Peou Sieng, Hong Nong, Veasna Sok, Chanrithi Sak Ran, Vicheka Van, Engsong Srong, Mony Norn**

15:20-15:35 Diagenesis of Sandstone Reservoir Around Tonle Sap Sedimentary Basin, Cambodia **Sodika Diep, Chandoeun Eng, Momyneath Chea, Pothsma Chheuy**

15:35-15:50	Hydrothermal alteration, mineralization and Geochemistry of Igneous rocks of Area-5 in Koh Sla, Kampot province, Southwestern Cambodia	Rothana Kheng, Sirisokha Seang, Kotaro Yonezu, Kimhouy Oy, Kakda Kret, Koichiro Watanabe, Seangleng Hoeu, Panhavong Ly, Bunna Hang
15:50-16:05	Remote sensing techniques using advanced space-borne thermal emission and reflection (ASTER) and Landsat-8 in the detection of alterations in Preah Vihear, North Cambodia.	Kakda Pov, Kakda Kret, Sirisokha Seang, Kotaro Yonezu, and Koichiro Watanabe, Chanmoly Or, Kimhak Neak, Chanmaly Chhun, Seangleng Hoeun
16:05-16:20 Online	Application of Geostatistics to Mineral Resource Modelling and Estimation: Case Study of Gofolo Hill Iron Ore Deposit, Western Liberia	Leo Klah Wilson, Aaron K. Waswa, Daniel W. Ichang'i

16:30-17:00 Awards Ceremony* & Closing Session (Room B)

Zoom URL: <https://zoom.us/j/96431642675?pwd=OXF2Y00zcXR2citYQTVJcDIldVJVUT09>

* Best Papers, Best Presentations and Best Posters will be announced at the Awards Ceremony.

Thursday, November 30, Conference Room B

9:00-9:05 Opening Session

Zoom URL: <https://zoom.us/j/96431642675?pwd=OXF2Y00zcXR2citYQTVJcDIldVJVUT09>

9:00-9:05 Opening Address

Yasuhiro Fujimitsu, Chair of CINEST, Kyushu University

9:05-9:40 Plenary Lecture I

Chairperson: Hideki Shimada, Kyushu University, Japan

9:05-9:40 Education Programs and Research Activities in the Graduate School of International Resource Sciences, Akita University

Hikari Fujii (Akita University, Japan)

9:40-10:15 Plenary Lecture II

Chairperson: Keiko Sasaki, Kyushu University, Japan

9:40-10:15 Sustainable Processing of Precious and Critical Minerals

Richmond K. Asamoah (University of South Australia, Australia)

10:15-10:40

Coffee Break

Technical Sessions

10:40-11:55 Geothermics I

Zoom URL: <https://zoom.us/j/96431642675?pwd=OXF2Y00zcXR2citYQTVJcDIldVJVUT09>

Chairperson: Arif Widiatmojo, National Institute of Advanced Industrial Science and Technology, Japan

10:40-10:55 An Analysis with An Agent-based Simulation on Social Acceptance of A Geothermal Project in Oguni Town, Japan

Kotaro SHINOZAKI, Jun NISHIJIMA, Tatsuya WAKEYAMA

10:55-11:10 Integration of Community Aspect & Geothermal Technology for Sustainable Social Licence

Pascal Manan

11:10-11:25 Life Cycle Assessment of Geothermal Power Production: A Case of Menengai Field Kenya

Okoth Janet and Saeid Jalilinasrabady

11:25-11:40	Evolution of Geothermal Energy Development in Kenya_ A Case Study of the Greater Olkaria Geothermal Area (GOGA)	Stephen Ouma and Maureen Ambunya
11:40-11:55	Temperature Model of Olkaria Domes Geothermal Field – Naivasha, Kenya	Alvin K. Bett, and Saeid Jalilinasrabady

11:55~13:40

Lunch

13:40-15:10 Geothermics II

Zoom URL: <https://zoom.us/j/96431642675?pwd=OXF2Y00zcXR2citYQTVJcDlldVJVUT09>

Chairperson: Tatsunori Ikeda, Kyushu University, Japan

13:40-13:55	Review of Geophysical Exploration at Olkaria and Menengai Geothermal Fields: Chronology and Scientific Contribution to Reservoir Evaluation and Characterization.	Gladys Kianji, Christophe Nyamai
13:55-14:10	Geological, Structural and Subsurface Characterization of the Proposed Karura Hydroelectric Power Plant in Lower Tana River, Kenya	Josphat Kyalo Mulwa
14:10-14:25	Geothermal Reservoir Characterization with Contrasting behavior-A Case Study of OW-710 directional wells, Olkaria Field. Kenya	Maureen Ambunya, Stephen Ouma, Eric Rop
14:25-14:40	Constraining the Resistivity Structure of High Temperature Geothermal Systems using Subsurface Hydrothermal Alteration Data. Insights from Olkaria Geothermal System, Kenya.	Victor Otieno, Ammon Omiti, Cosmas Rutto
14:40-14:55	The First Results of Gravity Survey in Arus-Bogoria Geothermal Prospect, Kenya	Josphat Mulwa and Nicholas Mariita
14:55-15:10	A Review of Dyking Processes in Arus-Bogoria Geothermal Prospect, Kenya: Inferences from Gravity and Seismic Data	Josphat Kyalo Mulwa

15:10~15:30

Coffee Break

15:30-17:00 Geothermic III

Zoom URL: <https://zoom.us/j/96431642675?pwd=OXF2Y00zcXR2citYQTVJcDlldVJVUT09>

Chairperson: Mitsuo Matsumoto, Kyushu University, Japan

15:30-15:45	Field Experiments for Evaluation of the Kinetics of Silica Scaling at well OW 707 in the Olkaria Geothermal Field, Naivasha Kenya	Wanyonyi Edwin Wafula, Kotaro Yonezu, Akira Imai, Takushi Yokoyama, Akane Ito, Stephen Odhiambo
15:45-16:00	Silica Scale Formation Mechanism in Highly Alkaline Hot Water Environment: A Case of Menengai Geothermal Field	Sylvia Joan Malimo

16:00-16:15	Embracing circularity in management of cooling tower fill packs. A case study of partnership between KenGen and Jua kali Entrepreneurs	Rose Mathenge, Jun NISHIJIMA and Tatsuya WAKEYAMA
16:15-16:30	Preliminary Evaluation of Cesium Tracer Adsorption for Geothermal Applications: Implications for Temperature Decline Predictions	Elvar Bjarkason, Adam J. Hawkins
16:30-16:45	Integrated energy and GIS-based spatial analysis for residential heating and cooling demand in Akita City, northern Japan	Saeid Bina, Hikari Fujii
16:45-17:00 Online	Geothermal Mapping Techniques Using Remote Sensed Data	Alex Ndwiga

17:00-18:00 Poster Session

18:30-20:00 Banquet

Friday, December 1, Conference Room B

Technical Sessions

9:00-10:00 Mining

Zoom URL: <https://zoom.us/j/96431642675?pwd=OXF2Y00zcXR2citYQTVJcDlldVJVUT09>

Chairperson: Tri Karian, Institute Technology Bandung, Indonesia

9:00-9:15	Study on the optimization of waste dump design for open pit mine - A case study of Okvau Gold Mine in Cambodia-	Tieng Rathnak, Hideki Shimada, Takashi Sasaoka, Akihiro Hamanaka
9:15-9:30	Optimization of the Slope Stability and Parameter for Internal Dump of Lignite Coal Mine Baganuur	Bilguun Enkhbold , Hajime Ikeda, Hisatoshi Toriya and Tsuyoshi Adachi
9:30-9:45	Prediction of Blast-Induced Ground Vibrations Using GPR and ANN Approaches	Yewuhalashet Fisssha, Hajime Ikeda, Narihiro Owada, Hisatoshi Toriya, Tsuyoshi Adachi, and Youhei Kawamura
9:45-10:00	Towards Real-time Data Transmission in Underground Mines: Assessing a Combined Ethernet and Wi-Fi Ad-hoc Network Solution	Malgazhdar Daniyar, Ikeda Hajime, Adachi Tsuyoshi, Suorineni Fidelis, Kawamura Youhei

10:00~10:20

Coffee Break

10:20-11:50 Special Session of Rio Tinto & Recent Research

Zoom URL: <https://zoom.us/j/96431642675?pwd=OXF2Y00zcXR2citYQTVJcDlldVJVUT09>

Chairperson: Akihiro Hamanaka, Kyushu University, Japan

10:20-10:50	Rio Tinto and Research & Development	Karl Malitz (Rio Tinto)
10:50-11:05	Innovative Use of Wi-Fi Direct and PLC for Cost-Effective Data Transmission in Underground Mine	Hajime Ikeda, Daniyar Malgazhdar, Brian Bino Sinaice, Muhammad Ahsan Mahboob, Glen Nwalia, Tsuyoshi Adachi, and Youhei Kawamura
11:05-11:20	Solidification of CO ₂ through Injection of Blast Furnace Slag Slurry Using Microbubbles in Underground Coal Mine Goafs	Ken Hongo, Akihiro Hamanaka, Takashi Sasaoka, Hideki Shimada, Ken-ichi Itakura, Gota Deguchi, Zhao Yafei, Kazuhiro Takahashi, Jun-ichi Kodama, Shusaku Harada
11:20-11:35	Potential of heavy metal adsorption by soils contaminated with acid mine drainage	Takahiko Arima, Taichi Matsusaki, Thaw Dar Wunn, Takaya Hamai, Mufalo Walubita, Shingo Tomiyama, Toshifumi Igarashi
11:35-11:50	Estimation of Required Critical Minerals for Clean Energy Technology in the APEC Region and Risks of Supply Chain Disruption	Phung Quoc Huy

11:50~13:00

Lunch

13:00-14:30 Civil Engineering & Rock Engineering

Zoom URL: <https://zoom.us/j/96431642675?pwd=OXF2Y00zcXR2citYQTVJcDIldVJVUT09>

Chairperson: Sugeng Wahyudi, NITTOC CONSTRUCTION CO., LTD, Japan

13:00-13:15 Online	Study of Limestone Tensile Strength Using Brazilian Test at Various Temperature	H. Prasetya, N. Priagung Widodo, G. Marihot Simangungsong, and U. Hasan
13:15-13:30	Automatic Detection and Evaluation of Soil Failure Pattern during Bucket Excavation for Sandy Soil	Tomoaki Satomi, Naoya Yaguchi, Xiaodong Liu, Hiroshi Takahashi
13:30-13:45	Experimental Study on Estimation of Cone Index for Sandy Soil by Crawler Vehicle Turning	Keiichiro YOSHIDA, Xiaodong IJU, Tomoaki SATOMI, Hiroshi TAKAHASHI
13:45-14:00	Simulations of Soil Excavation and Collapse Using Soil Constitutive Models with Material Point Method	Xiaodong Liu, Ryohei Suzuki, Tomoaki Satomi, Hiroshi Takahashi
14:00-14:15	Thermal stimulation mechanical response and shear dilatation predictive model improvement of granite fractures in an enhanced geothermal system	Tianqi Jiang, Bing Chen, Hideki Shimada, Takashi Sasaoka and Akihiro Hamanaka
14:15-14:30 Online	Estimating Compressive and Tensile Strength of Rock Using the Block Punch Index	Jerico Sebastian Veron, Ganda Marihot Simangunsong and Yudhiya Wicaksana

14:30~14:50

Coffee Break

14:50-16:20 Geomechanics & Tunnelling

Zoom URL: <https://zoom.us/j/96431642675?pwd=OXF2Y00zcXR2citYQTVJcDIldVJVUT09>

Chairperson: Tomoaki Satomi, Tohoku University, Japan

14:50-15:05	A Study on Chemical and Physical Properties of Indonesian Copper Slag as Natural Aggregate and Cement Substitute Materials for Concrete	Patria Kusumaningrum, Fadhila Achmadi Rosyid
15:05-15:20	Effects of Geomechanical Conditions on Impact Experiments on the Lunar and Martian Regolith Surfaces	Takuma Ishii, Arata Kioka, Yasuhiro Yamada, Takumu Nakamura and Jyh-Jaan Steven Huang
15:20-15:35	Research on the Geological Risk Events in Mountain Tunnel	Yoshio UDAGAWA
15:35-15:50	EPB TBM Specific Energy Prediction Using Explainable AutoML	Kursat Kilic, Hajime Ikeda, Owada Narihiro, Tsuyoshi Adachi and Youhei Kawamura

15:50-16:05	Evaluation of Influential Parameters for Overbreak Phenomenon in Drill and Blast Tunnel Excavation Using Overbreak Resistance Factor	Tatsuki Kurauchi, Hyunjun Im Naru Sato, Hyongdoo Jang, Hirotada Kuroki, Yoshiko Goto, Hajime Ikeda, Hisatoshi Toriya, and Youhei Kawamura
16:05-16:20	Explainable Artificial Intelligence for Vibration Based-Drill Bit Failure Diagnosis	Lesego Senjoba, Hajime Ikeda, Hisatoshi Toriya, Tsuyoshi Adachi, and Youhei Kawamura

16:30-17:00 Awards Ceremony* & Closing Session (Room B)

Zoom URL: <https://zoom.us/j/96431642675?pwd=OXF2Y00zcXR2citYQTVJcDIldVJVUT09>

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Thursday, November 30, Conference Room C

Technical Sessions

10:40-11:55 Geophysics

Zoom URL: <https://zoom.us/j/91505681739?pwd=T0grQlJwUGh4cGpmYmpjVU9mUHh3UT09>

Chairperson: Chanmaly Chhun, Kyushu University, Japan

10:40-10:55	Assessment of Subsurface Structure Associated with Hydrocarbon Migration and Accumulation in the Middle East; Gained from Seismic Attribute Analysis	Samim Khair Mohammad , Takeshi Tsuji , Chanmaly Chhun
10:55-11:10	Seismic profile derived from the natural earthquakes recorded with seafloor DAS data	Yuji Sakagami, Tatsunori Ikeda, Takeshi Tsuji
11:10-11:25	Detection and utilization of footstep induced vibrations with seismometers	Kohei Nakayama, Tatsunori Ikeda, Takeshi Tsuji, Nimiya Hiro
11:25-11:40	The relationship between the ice content and electrical conductivity of lunar regolith: towards exploration of lunar ice resource utilizing electrical and electromagnetic methods	Koshi Wakura, Kazuki Sawayama, Tatsunori Ikeda, Takeshi Tsuji
11:40-11:55	Studying The Seismic Illumination and Time-Lapse Response of Planned Carbon Dioxide Injection in Deep Carbonate Reservoir	Riskiray Ryannugroho, Djoko Santoso, Sonny Winardhi, M. Rachmat Sule, Fernando Lawrens

11:55~13:40

Lunch

13:40-15:10 Biotechnology & Mineral Processing

Zoom URL: <https://zoom.us/j/91505681739?pwd=T0grQlJwUGh4cGpmYmpjVU9mUHh3UT09>

Chairperson: Richmond K. Asamoah, University of South Australia, Australia

13:40-13:55	Effect of microbial community and solution redox potential on the bioleaching of tennantite concentrate	Shota Kondo, Naoko Okibe
13:55-14:10	Combination of microbial As(III) oxidation and waste Fe-sludge for As removal	Yuika Kawazoe, Yuya Sato, Taiki Katayama, Tetsuo Yasutaka, Naoko Okibe
14:10-14:25	The synergistic effect of the glycine-thiosulfate system for gold leaching	Kasun Godigamuwa and Naoko Okibe
14:25-14:40	Selective recovery of critical metals from spent catalysts	Idol Phann, Naoko Okibe

14:40-14:55 Evaluation of the Effect of Nanoparticles on the Flotation of Enargite **Eska Putra Dwitama, Akbarshokh Ulmaszoda, Gde Pandhe Wisnu Suyantara, Keiko Sasaki, and Hajime Miki**

14:55-15:10 Investigation of the Effect of Goethite Nanoparticles on Chalcopyrite Floatability **Akbarshokh Ulmaszoda, Gde Pandhe Wisnu Suyantara, Intan Nurul Rizki, Keiko Sasaki and Hajime Miki**

15:10~15:25 *Coffee Break*

15:25-17:25 Advanced Research Network for Biohydrometallurgy of Double Refractory Gold Ore

Zoom URL: <https://zoom.us/j/91505681739?pwd=T0grQlJwUGh4cGpmYmpjVU9mUHh3UT09>

Chairperson: Cindy, Kyushu University, Japan, Richmond K. Asamoah, University of South Australia, Australia, Ikumi Suyama, Kyushu University, Japan

15:25-15:40 Mineralogy-Specific Processing of Double Refractory Gold Ores and Concentrates **Richmond K. Asamoah, Philip Forson, Jonas Addai-Mensah, William Skinner**

15:40-15:55 Bio-oxidation of double refractory gold ore using mixed bacteria including organic decomposing species prior to cyanidation **Ryusei Takimoto, Ikumi Suyama, Naoko Okibe, Keiko Sasaki**

15:55-16:10 The Effect of Hydraulic Oil Contamination on Gold Biooxidation **Nozipho Dhlamini, Sehliselo Ndlovu, Glen Nwaila**

16:10~16:25 *Coffee Break*

16:25-16:40 Impact of bio-oxidation and enzymatic treatment on gold extraction by thiourea for double refractory gold ore **Ikumi Suyama, Ryusei Takimoto, Kojo Twum Konadu, Yuji Aoki, Keiko Sasaki**

16:40-16:55 Assessing Gold Adsorption Properties of Carbonaceous Materials of Different Maturity Levels **Francis Kwaku Darteh, Gideon Mawuli Kobla Gbedemah, Clinton Addae, Abdul-Wasiu Mamudu, Matin Afe Kojo**

16:55-17:10 Effects of Mediators in Laccase-Mediator Systems on Biodegradation of Carbonaceous Matter in Double Refractory Gold Ores **Cindy, Hirofumi Ichinose, Keiko Sasaki**

17:10-17:25 Mechanism of ultrasound-intensified leaching and its enhancement on the cyanidation process of refractory tailings **Livison Madumira, Sehliselo Ndlovu**

17:00-18:00 Poster Session

18:30-20:00 Banquet

Friday, December 1, Conference Room C

Technical Sessions

9:00-10:00 Remote Sensing

Zoom URL: <https://zoom.us/j/91505681739?pwd=T0grQlJwUGh4cGpmYmpjVU9mUHh3UT09>

Chairperson: Arata Kioka, Kyushu University, Japan

9:00-9:15	Application of Multispectral-Camera-Mounted-UAV and Spectral Reflectance Indexing in Identification of Placer Deposit Magnetite	Brian Bino Sinaice, Jun Abe, Narihiro Owada, Hajime Ikeda, Hisatoshi Toriya, Zibisani Bagai, Elisha Shemang, Tsuyoshi Adachi and Youhei Kawamura
9:15-9:30	Study on Periodic Monitoring of Mine Backwalls Using UAV Laser Surveying	Jieling Wu, Mitsugu Saito
9:30-9:45	Detecting Land Surface Deformation in Olkaria Geothermal Fields: A Statistical Analysis of ESA Sentinel-1 SAR Images Using Python and Google Earth Engine API	Gathecha Henry Munyaka
9:45-10:00	Integrative Analysis of Land Use Land Cover (LULC) and Mineral Detection in Belinyu, North Bangka Using High-Resolution PlanetScope Imagery and Machine Learning Techniques	Arie Naftali Hawu Hede, Syafrizal, Mohamad Nur Heriawan

10:00~10:20

Coffee Break

11:50~13:00

Lunch

13:00-14:40 SREC Special Session

Zoom URL: <https://zoom.us/j/91505681739?pwd=T0grQlJwUGh4cGpmYmpjVU9mUHh3UT09>

Chairperson: Hajime Miki, Kyushu University, Japan, Keigo Kitamura, Kyushu University, Japan

13:00-13:20	Resource Situation Online, Group A
13:20-13:40	Resource Situation Online, Group B
13:40-14:00	Resource Situation Online, Group C
14:00-14:20	Resource Situation Online, Group D

14:20-14:40 Resource Situation Online, Group E

14:40~14:50

Coffee Break

14:50-16:20 Mineral Processing & Environment

Zoom URL: <https://zoom.us/j/91505681739?pwd=T0grQlJwUGh4cGpmYmpjVU9mUUh3UT09>

Chairperson: Gde Pandhe Wisnu Suyantara, Kyushu University, Japan

14:50-15:05	Petrology and Geochemical Assessment for Industrial Applications of Limestone at Phnom Kdong Mountain in Battambang Province, Cambodia	They Chhun, Chandoeun Eng, Kimhouy Oy
15:05-15:20	The effect of leaching media on the recovery of cobalt and copper from a low-grade oxide ore from the Zambian Copperbelt	Labone L. Godirilwe, Carmela Tupaz, Mukuka Simusokwe, Kazutoshi Haga, Atsushi Shibayama
15:20-15:35	The effect of surface modified carriers on the recovery of rare earth minerals from tin tailing by magnetic separation	Ilhwan Park, Rinaldi Yudha Pratama, Mayumi Ito, Naoki Hiroyoshi
15:35-15:50	Development of Beneficiation Process to Recover Cassiterite from Primary Tin Deposit, Indonesia	Topan Satria Gumilang, Ilhwan Park, Mayumi Ito, Naoki Hiroyoshi
15:50-16:05 Online	Screening of Biosurfactant-Producing Bacteria for Potential Application in Pb Heavy Metal Remediation	Kaim Maspudin, Isty Adhitya Purwasena, Dea Indriani Astuti, Donny Suherman
16:05-16:20 Online	The Potency of Yeast to Degrade High-Density Polyethylene (HDPE)	Nur Hidayatul Alami, Muhammad Andry Prio Utomo, Maulinda Khasanatuz Zahro, Ayunda Novita Rani, Pingkan Aditiawati, Isty Adhitya Purwasena, Fenryco Pratama, Nengah Dwianita Kuswytasari, Enny Zulaika, Maya shovitri

16:30-17:00 Awards Ceremony* & Closing Session (Room B)

Zoom URL: <https://zoom.us/j/96431642675?pwd=OXF2Y00zcXR2citYQTVJcDIldVJVUT09>

* Best Papers, Best Presentations and Best Posters will be announced at the Awards Ceremony.

Thursday, November 30, Conference Room D

Technical Sessions

10:40-11:55 International Joint Workshop on the Sustainable Resource Development towards the Carbon Neutrality

Zoom URL: <https://zoom.us/j/98213449243?pwd=aFRndWdPcnptN2tGWVhTTzRqYlVMUT09>

Chairperson: Atsushi Shibayama, Akita University, Japan

10:40-10:55	Welcome Address	Prof. Atsushi Shibayama (Core to Core Program Coordinator) (Japan) Prof. Tsuyoshi Adachi (Smart Mining Program Coordinator) (Japan)
10:55-11:10	Geochemical features of Rare Earth Element mineralization in Mongolia.	Prof. Sereenen JARGALAN (Director of the Center for Research and Innovation of Technology Minerals) (Mongolia)
11:10-11:25	Discrete Physical Modelling and Acoustic Emission Tests for Real-time Seismic Wave Velocity Prediction in Underground Mines Using Machine Learning.	Prof. Suorineni Fidelis (Head of School of Mining and Geosciences, Nazarbayev University) (Kazakhstan)
11:25-11:40	Climate change and water resources management in Central Asia.	Dr. Anvar Kodirov (Director of the Center for innovative development of science and new technologies National academy of sciences of Tajikistan) (Tajikistan)
11:40-11:55	Research on refractory gold ore processing	Dr. Omon Fuzaylov (Navoi State University of Mining and Technologies) (Uzbekistan)

11:55~13:00

Lunch

13:00-15:15 International Joint Workshop on the Sustainable Resource Development towards the Carbon Neutrality

Zoom URL: <https://zoom.us/j/98213449243?pwd=aFRndWdPcnptN2tGWVhTTzRqYlVMUT09>

Chairperson: Atsushi Shibayama, Akita University, Japan

13:00-13:15	Mineral resources - the basis of economic development of Kyrgyzstan.	Prof. Akylbek Maralbaev (Director of the Mining Institute and a former Rector, Kyrgyz State Technical University) (Kyrgyz)
13:15-13:30	Possibility, projects and problems with processing mineral resources of Uzbekistan	Dr. Sokhibjon Matkarimov (Head of Laboratory Mining and Deep Processing of Mineral Resources, UJICY) (Uzbekistan)
13:30-13:45	NUMERICAL MODELLING IN SUSTAINABLE PRACTICE IMPROVEMENT WITHIN BH BAUXITE MINING	Assistant Professor. Dražana Tošić(Faculty of Mining University of Banja Luka, RS)(Bosnia and Herzegovina)

13:45~14:00

Coffee Break

14:00-14:15	Development of Underground Mine Monitoring and Communication System Based on Wireless Sensor Networks	Associate Professor. Bunda Besa(University of Zambia)
14:15-14:30	Modernising the Mining Life Cycle – What is Happening?	Professor. Fred Cawood(Univerisity of the Witwatersrand)(South Africa)
14:30-14:45	Application of Advanced Data Analytics for Multi-Source and Heterogeneous Systems Integration for Smart Mining	Head of Sibanye-Stillwater Digital Mining Laboratory. Muhammad Ahsan Mahboob(Univerisity of the Witwatersrand)(South Africa)
14:45-15:00	Nickel-Copper Sulfide Mineralization in the Maibele-North Ni sulfide Prospect, central-eastern Botswana	Professor. Elisha Shemang(Botswana International University of Science and Technology)
15:00-15:15	Assessment of environmental and health risks of Arsenic (As) soil pollution from abandoned manganese mine tailings at Kgwakgwe Hill in SE Botswana	Associate Professor, Zibisani Bagai(University of Botswana)
15:15-15:20	Closing Remarks	Prof. Atsushi Shibayama (Core to Core Program Coordinator) (Japan)

17:00-18:00 Poster Session

18:30-20:00 Banquet