

**Tuesday, October 18**

Time	Code	ROOM A: INDONESIA ROOM (3 <sup>rd</sup> Floor)	Room B: BALI ROOM (2 <sup>nd</sup> Floor)	
08:30-08:35		Safety Briefing		
08:35-09:15		Opening Ceremony & Welcome Speech from the Committee		
		<b>Keynote Lecture</b>		
09:15-09:45	KL-1	Standardization of Rock Testing Within the Context of The ISRM Suggested Methods, Associated Practical Issues and Future <b>Prof. Resat Ulusay</b>		
09:45-10:00		<i>Coffee Break</i>		
10:00-10:30	KL-2	Prediction of Rock Cutting Performance <b>Prof. Seokwon Jeon</b>		
		<b>SESSION TOPIC: ENERGY-1</b>		<b>SESSION TOPIC: INFRA-1</b>
		<b>Chairman of Session 1 - ZHIHONG ZHAO, Ph.D</b>		<b>Chairman of Session 2 - Dr. JIANBO ZHU</b>
10:40-11:00	EN1-P60	A Rock Mechanical Model for Overbalanced, Managed Pressure, and Underbalanced Drilling Applications <b>M. N. J. Al Awad</b>	IN1-P20	Effect of Dominating Geological Discontinuity on the Seismic Performance of Underground Rock Caverns: A Case Study of Baihetan 1# surge chamber <b>C. Zhen, S. Qian and L. Xianlun</b>
11:00-11:20	EN2-P69	Physical Changes of Coal-bearing Rock in the Dumping Site with the Utilization of Fly Ash and Organic Material as Cover Layer to Prevent Acid Mine Drainage Generation <b>S. Dwiki, H. Shimada, R. S. Gautama, T. Sasaoka, G. J. Kusuma</b>	IN2-P233	Deformation and Strain Measurement of Geo-materials using Extended Digital Image Correlation Technique <b>S. Bhattacharjee and D. Deb</b>
11:20-11:40	EN3-P127	Utilization of X-Ray CT Scanning technique in Rock Mechanics Applications <b>Ö. Aydan , N. Tokashiki and M. Edahiro</b>	IN3-P84	Statistical Analysis of Ground Loss Ratio Duo to Large-diameter Shield Tunnel Construction in China <b>C. Wu and Z. Zhu</b>

Time	Code	ROOM A: INDONESIA ROOM (3 <sup>rd</sup> Floor)	Room B: BALI ROOM (2 <sup>nd</sup> Floor)	
11:40-12:00	EN4-P176	Improved Characterization of Carbonates Capillary Pressure Transition Zones for Optimizing Oil Recovery <b>A. A. Jebbouri and H. A. Belhaj</b>	IN4-P123	Unlined/Shotcrete Lined Pressure Tunnel Passing Through Himalayan Rock Mass – Design Review of Upper Tamakoshi Headrace Tunnel, Nepal <b>C. B. Basnet and K. K. Panthi</b>
12:00-13:00	Lunch Break			
		<b>SESSION TOPIC: ROCKMASS CHARACTERIZATION-1</b>		<b>SESSION TOPIC: CONSTITUTIVE MODELS &amp; NUMERICAL MODELLING-1</b>
		<b>Chairman of Session 3 - Prof. JAE-JOON SONG</b>		<b>Chairman of Session 4 - Prof. DEBASIS DEB</b>
13:00-13:20	RMC1-P1	High Strain Rate Characterization of Himalayan Limestone <b>H. Meena, S. Mishra, T. Chakraborty, V. Matsagar, P. Chandel, V. Mangla and M. Singh</b>	CMNM1-P114	Numerical Simulation of Dynamic Semi-Circular Bend Flexure Tests of Rocks Using Split Hopkinson Pressure Bar <b>F. Dai, Y. Xu, T. Zhao and N. W. Xu</b>
13:20-13:40	RMC2-P21	Experimental Study of Propagation of 3D Flaws under Static and Dynamic Loading Conditions with the Application of 3D Printing <b>T. Zhou and J.B. Zhu</b>	CMNM2-P115	Experimental and Numerical Study on Rock Fracture Toughness Testing Using Cracked Chevron Notched Semi-Circular Bend Specimen <b>M.D. Wei, F. Dai, N.W. Xu, and T. Zhao</b>
13:40-14:00	RMC3-P86	Strength Reinforcement of Sand Test Specimens Cemented with Calcium Phosphate Compounds and Different Powders <b>R.A.N. Dilrukshi and S. Kawasaki</b>	CMNM3-P120	A New Empirical Failure Criterion for Coal Masses at the 3-D level <b>PF. He, P. H.S.W. Kulatilake, DQ. Liu and MC. He</b>
14:00-14:20	RMC4-P174	The Effect of Clay Content on the Strength of Clay-Bearing Rocks <b>S. Kahraman, A. S. Aloglu, B. Aydin and E. Saygin</b>	CMNM4-P49	Numerical Accuracy and Performance of a Particle Integration Scheme for Manifold Method <b>L. Sun, G. F. Han, X. Q. Wang, J. M. Li, X. D. Liu, and X. Jin</b>
14:20-14:40	RMC5-P194	Geostatistical Study of the Direct Uniaxial Compressive Strength of the Kadilar Marble Quarry <b>Y. Özçelik, F. Atalay and K. Aksoy</b>	CMNM5-P185	A Coupled FEM-SPH Procedure for the Simulation of Blast Induced Rock Damage <b>A. Khan and D. Deb</b>

Time	Code	ROOM A: INDONESIA ROOM (3 <sup>rd</sup> Floor)	Room B: BALI ROOM (2 <sup>nd</sup> Floor)	
14:40-15:00	RMC6-P202	Performance Assessment of Fly Ash-mixed Cement Borehole Plugs in Sandstone <b>M. Chiangmai and P. Tepnarong</b>	CMNM6-P35	Evaluation of Ground Support by Rock Mass Index and Finite Element Method Numerical Modelling PT Cibaliung Sumberdaya Banten <b>A. Adharefa, S. Saptono and B. D. Nagara</b>
15:00-16:00	Coffee Break, Core time of Poster Session (RC)			
		<b>SESSION TOPIC: ROCK EXCAVATION-1</b>		<b>SESSION TOPIC: UNDERGROUND MINE OPENING STABILITY-1</b>
		<b>Chairman of Session 5 - Prof. TOMOYUKI AOKI</b>		<b>Chairman of Session 6 - Dr. KRISHNA KANTA PANTHI</b>
16:00-16:20	RE1-P119	A Conceptual Study for Development of 3D Rock Fragmentation Analysis System with Stereo-photogrammetry Technologies <b>R. Degawa, H. Jang, Y. Kawamura, I. Kitahara, E. Topal and Y. Endo</b>	UMOS1-P8	Effects of Carnallite Contents on Stability and Extraction Ratio of Potash Mine <b>A. Luangthip, S. Khamrat and K. Fuenkajorn</b>
16:20-16:40	RE2-P173	Predicting The Performance of an Axial Type Roadheader in Mine Roadway Excavation from The Needle Penetration Index <b>S. Kahraman, A. S. Aloglu, B. Aydin and E. Saygin</b>	UMOS2-P23	Maximum Unsupported Span and Standup Time of Potash Mine Roof as Affected by Carnallite Contents <b>M. Chobsranoi and K. Fuenkajorn</b>
16:40-17:00	RE3-P19	Characteristics of Rock Blast Damage and Damage Criterion of Limestone Rock Mass <b>S. Wahyudi, H. Shimada, T. Sasaoka, G. M. Simangunsong and Y. Takahashi</b>	UMOS3-P42	Study of Displacement Distribution Around Circular Opening Affected by Presence of Discontinuities Using Laboratory Biaxial Test <b>N. F. Qaidahiyani and N. P. Widodo</b>
17:00-17:20	RE4-P14	Variation in the Reactivity of Chemical Solutions on Rock Properties with Changes in Temperature <b>V. Yuan and P. C. Hagan</b>	UMOS4-P55	Determination of Safe Withdrawal Rates of Compressed-air Energy Storage Caverns in Maha Sarakham Salt <b>T. Thongprapha, S. Khamrat and K. Fuenkajorn</b>
17:20-17:40	RE5-P83	Study on Effect of High Precision Detonation on Fracture Mechanism in Small Scale Blasting Tests	UMOS5-P22	Determination of Time-Dependent Strengths of Salt Pillars using Strain Energy Density Criterion <b>P. Junthong and K. Fuenkajorn</b>

Time	Code	ROOM A: INDONESIA ROOM (3 <sup>rd</sup> Floor)	Room B: BALI ROOM (2 <sup>nd</sup> Floor)	
		Y. Takahashi, T. Saburi, T. Sasaoka, W. Sugeng, H. Shimada and Yuji Ogata		
17:40-18:00	RE6-P142	Development of a Small Scaled Linear Cutting Machine and Rock Cutting Tests Using Conical Picks <b>HY. Jeong and S. Jeon</b>	UMOS6-P183	Inorganic Silicate Capsules for Anchoring in the Mines <b>B. P. Khassen, S. N. Lis and R. A. Musin</b>

**Wednesday, October 19**

Time	Code	ROOM A: INDONESIA ROOM (3 <sup>rd</sup> Floor)	Room B: BALI ROOM (2 <sup>nd</sup> Floor)	
		<b>Keynote Lecture</b>		
08:45-09:15	KL-3	Ground Support Design for Sudden and Violent Failures in Hard Rock Tunnels <b>Prof. Ernesto Villaescusa</b>		
09:15-09:45	KL-4	Displacement Monitoring and Assessment of The Stability of Underground Structures <b>Prof. Norikazu Shimizu</b>		
09:45-10:00		<i>Coffee Break</i>		
10:00-10:30	KL-5	The Most Important and Influential Factors in Field Measurements in Geomechanics <b>Prof. Shunsuke Sakurai</b>		
		<b>SESSION TOPIC : ENERGY-2</b>		<b>SESSION TOPIC: INFRA-2</b>
		<b>Chairman of Session 7 - Prof. KI-BOK MIN</b>		<b>Chairman of Session 8 – Prof. SAIR KAHRAMAN</b>

Time	Code	ROOM A: INDONESIA ROOM (3 <sup>rd</sup> Floor)	Room B: BALI ROOM (2 <sup>nd</sup> Floor)	
10:40-11:00	EN5-P78	Shear Behavior of Heat-treated Fractures in Beishan Granite <b>Z. Zhao, D. Zhou and H. Pu</b>	IN5-P160	Suggestion of Hydraulic Stimulation Guideline Considering Management of Induced Seismicity for Pohang EGS Project <b>KI. Kim, KY. Kim and KB. Min</b>
11:00-11:20	EN6-P192	Critical Reynolds Number for Nonlinear Flow Through Single Fractures: The Roles of Aperture and Surface Roughness <b>R. Liu and Y. Jiang</b>	IN6-P209	Dynamic Response of Weathered Sandstone with Respect to Physical and Mechanical Characteristics <b>M. M. Mohd-Nordin, M. K. A. Ismail, A. S. Md. Hasan and Z. Mohamed</b>
11:20-11:40	EN7-P175	Strength and Permeability of Carbonate Reservoir Rocks <b>P. A. Nawrocki and A. A. Jebbouri</b>	IN7-P41	Real-time Monitoring of Tunnel Face Extrusion for Ground Control <b>K. Date, Y. Yokota, Y. Koizumi, T. Yamamoto and F. Uehan</b>
11:40-12:00	EN8-P45	Investigation into Evolution of Shale Gas Permeability during the Gas Reservoir Recovery Process <b>P. Cao, J. Liu and YK. Leong</b>	IN8-P134	Effects of Forepoling Pre-Support Design Parameters on Shallow Tunnel Crown Stability in Weathered Granite <b>R. A. Abdullah, S. M. Yahya, M. A. M. Ismail and H. Mohamad</b>
12:00-13:00	Lunch Break			
		<b>Keynote Lecture</b>		
13:00-13:30	KL-6	Issues on Rock Dynamics and Future Directions <b>Prof. Ömer Aydan</b>		
		<b>SESSION TOPIC: ROCK EXCAVATION-2</b>		<b>SESSION TOPIC: CONSTITUTIVE MODELS &amp; NUMERICAL MODELLING-2</b>
		<b>Chairman of Session 9 - Dr. SUGENG WAHYUDI</b>		<b>Chairman of Session 10 - Prof. KIYOSHI KISHIDA</b>
13:30-13:50	RE7-P104	Study on Mechanism and Occurrence Conditions of Fly Rock	CMNM7-P113	DEM Simulation of Cracked Chevron Notched Brazilian Disc Rock Specimen: Fracture Toughness Determination Incorporating Realistic Crack Profiles <b>Y. Xu, F. Dai, N.W. Xu and T. Zhao</b>

Time	Code	ROOM A: INDONESIA ROOM (3 <sup>rd</sup> Floor)	Room B: BALI ROOM (2 <sup>nd</sup> Floor)	
		at Bench Blasting <b>T. Sasaoka, Y. Takahashi, K. Yamaguchi, S. Wahyudi, H. Shimada, T. Saburi and S. Kubota</b>		
13:50-14:10	RE8-P87	Strain Rate Effect on the Crack Initiation Stress Level under Uniaxial Compression <b>Y. Wicaksana and S. Jeon</b>	CMNM8-P27	Evaluation of Constitutive Model by the Triaxial Compression Test and the Numerical Analysis Introduced Strain Hardening and Softening <b>Y. Aono, T. Okuno, A. Nakaya and T. Nishi</b>
14:10-14:30	RE9-P15	Effect of Cutter Tool Angle on Rock Cutting Performance <b>K. Rashidi and P. C. Hagan</b>	CMNM9-P79	Modeling Stress-Induced Failure for Deep Tunnel Excavation of Pahang-Selangor Raw Water Transfer Project <b>R. Azit and M. A. M. Ismail</b>
14:30-14:50	RE10-P71	A Case Study on Shield TBM Driving across the Riverbed of the Hangang (River) <b>CS. Kim and JY. Kim</b>	CMNM10-P46	Numerical Simulation of Percussive Rock Drilling and Its Modification in Bit Penetration <b>K. Hashiba, K. Fukui, Y. Z. Liang, M. Koizumi and T. Matsuda</b>
14:50-15:10	RE11-P126	Preliminary Rock Engineering Assessment of the Planned Salang Tunnels (Afghanistan) <b>N. Malistani and Ö. Aydan</b>	CMNM11-P29	Theoretical Model Using Two Kinds of Function for Distribution of Applied Load in Brazilian Test <b>T. Tsutsumi, R. A. Abdullah and M. F. M. Amin</b>
15:10-15:30	RE12-P68	Numerical Waveform Estimation for Vibration and Noise Based on Accurate Delay Time Control Tunnel Blasting <b>K. Iwano, T. Inuzuka, J. Nagae, K. Fukui and K. Hasiba</b>	CMNM12-P150	Age-Dependent Shotcrete Behavior in Convergence Confinement Method and 3D Numerical Analysis <b>T. Bhandari and M. Kastner</b>
15:30-16:00	Coffee Break			
		<b>SESSION TOPIC: ROCKMASS CHARACTERIZATION-2</b>		<b>SESSION TOPIC: OPENPIT SLOPE STABILITY</b>
		<b>Chairman of Session 11 - Prof. FENG DAI</b>		<b>Chairman of Session 12 - Dr. ABBAS TAHERI</b>

Time	Code	ROOM A: INDONESIA ROOM (3 <sup>rd</sup> Floor)	Room B: BALI ROOM (2 <sup>nd</sup> Floor)	
16:00-16:20	RMC7-P228	Applicability of Powder-Based 3D Printer in Rock Mechanics <b>S. Fereshtenejad and J. J. Song</b>	OPSS1-P4	Geometry Effect of Open Pit and Underground Mine During Transition and Interaction <b>E. Widijanto, R. K. Wattimena, S. Kramadibrata and M. A. Rai</b>
16:20-16:40	RMC8-P17	Development of Construction Material for Covering of Seabed Resources Using Fly Ash <b>H. Shimada, T. Sasaoka, S. Wahyudi, S. Fujita, Y. Yoshida and K. Takahashi</b>	OPSS2-P31	Slope Failure Behaviour Analysis in Open Pit Coal Mining <b>R. H. Musa and S. Saptono</b>
16:40-17:00	RMC9-P26	Prediction of Rockburst Potential under High Geo-Stress: Experimental Study <b>S. Vathna, L. Sanghyun and S. Ki-Il</b>	OPSS3-P24	Rockfall Mitigation and Slope Stabilization Measures in Open Pit Mines and New Development Measure of Attenuator Systems <b>C. Balg and R. L. Fonseca</b>
17:00-17:20	RMC10-P207	Comprehensive Laboratory Study of a Slightly Metamorphosed Limestone <b>L. N. Y. Wong, V. Maruvanchery and N. N. Oo</b>	OPSS4-P80	Effects of the Change of Soil pH on Soil Erosion in Indonesian Open-Cut Coal Mine <b>S. Ogata, S. Matsumoto, H. Shimada and T. Sasaoka</b>
17:20-17:40	RMC11-P122	Considerations on Friction Angles of Planar Rock Surfaces with Different Surface Morphologies from Tilting and Direct Shear Tests <b>Ö. Aydan</b>	OPSS5-P196	Risk Management of Mining Optimization on the Remaining Coal Reserve based on the Failure Probability Analysis at the Bendili Pit, PT. Kaltim Prima Coal <b>H. Pancamanto, W. Ningrum, C. H. Saputra, B. Sulisty and S. Kramadibrata</b>
17:40-18:00	RMC12-P54	Effects of Confining Pressure on Strain Rate-Dependent Deformation and Failure of Kimachi Sandstone <b>K. Amo, Y. Fujii, J. Kodama and D. Fukuda</b>	OPSS6-P210	An Experimental Study of the Planar Sliding of Rock Slopes During Dynamic Loading Under Dry and Immersed Conditions <b>K. Adachi, N. Iwata, R. Kiyota, Y. Takahashi, O. Aydan, N. Tokashiki and T. Ishibashi</b>

**Thursday, October 20**

Time	Code	ROOM A: INDONESIA ROOM (3 <sup>rd</sup> Floor)	Room B: BALI ROOM (2 <sup>nd</sup> Floor)	
		<b>Keynote Lecture</b>		
08:45-09:15	KL-7	Strength Criteria to The Dynamic Strength of Brittle Rock <b>Prof. Jian Zhao</b>		
09:15-09:45	KL-8	Recent Developments on Rock Mass Stability Investigations Associated with Surface and Underground Excavations in Three Dimensions <b>Prof. Pinnaduwa H. S. W. Kulatilake</b>		
09:45-10:00		<i>Coffee Break</i>		
		<b>SESSION TOPIC: ROCKMASS CHARACTERIZATION-3</b>		<b>SESSION TOPIC: UNDERGROUND MINE OPENING STABILITY-2</b>
		<b>Chairman of Session 13 - Prof. MASAHIKO OSADA</b>		<b>Chairman of Session 14 - PAUL HAGAN, Ph. D</b>
10:00-10:20	RMC13-P36	Dynamic Tensile Failure of Rocks Subjected to Simulated In situ Stresses <b>K. Xia, B. Wu, Y. Xu and Y. Guo</b>	UMOS7-P9	Constitutive Equation for Creep Closure of Shaft and Borehole in Potash Layers with Varying Carnallite Contents <b>N. Wilalak and K. Fuenkajorn</b>
10:20-10:40	RMC14-P89	Utilization of Geotechnical Logging for Rockmass Characterization (Case Study In Coal Deposit) <b>L. I. Rachmad, D. Nirrambodo, I. Ega and S. Bayu</b>	UMOS8-P182	Damage Analysis at Drawpoint in Panel 1E, Panel 1F, Panel 1G and Panel 1H DOZ Underground Mine Area PT Freeport Indonesia <b>C. Andrianto, A. Sjadat, A. Kurniawan, A. Mulyadi and A. Ginting</b>
10:40-11:00	RMC15-P188	Fracture Propagation in Layered Sandstones with Varying Saturation <b>W. Timms, P. Cai, B. David, H. Masoumi, N. Melkoumian and J. Heo</b>	UMOS9-P12	A Comparative Performance Analysis of Wireless Sensor Network Topologies for Underground Spaces Monitoring <b>M. A. Moridi, M. Sharifzadeh, Y. Kawamura and E. K. Chanda</b>



Time	Code	ROOM A: INDONESIA ROOM (3 <sup>rd</sup> Floor)	Room B: BALI ROOM (2 <sup>nd</sup> Floor)	
11:00-11:20	RMC16-P151	The Effect of Clay Content on the Strength of Clay-Bearing Rocks <b>A. Sjadat, A. Purba, U. Barito, K. Sulaeman and R. Hasan</b>	UMOS10-P101	Sill Pillar Application for Crown Pillar Recovery Optimization in Overhand Cut and Fill Underground Mine <b>T. Karian, H. Shimada, T. Sasaoka, S. Wahyudi and B. Sulistianto</b>
11:20-11:40	RMC17-P129	Creep Tests on Limestone from Bazda Antique Underground Quarry in Turkey <b>T. Ito, Ö. Aydan, R. Ulusay, C. Ağan and M. Geniş</b>	UMOS11-P67	Application of CMRR Classification System to Determine Rock Mass Design Parameters in Underground Coal Mines <b>A. Taheri and M. Guardado</b>
11:40-12:00	RMC18-P131	Field Experimentation of Rock Quality Designation Measurements at Sandstone Mine, Loa Janan Ulu Village, Loa Janan Sub District, Kutai Kartanegara, East Kalimantan <b>F. Adinata, W. Nugroho, C. Sarungallo, C. Manurung and S. Mahardika</b>	UMOS12-P73	Prediction of Disc Cutter Wear for a Hard Rock TBM Based on Improved Energy Method and Empirical Analysis <b>F. Zhao, Y. Xue and Z. Diao</b>
12:00-13:00	Lunch Break			
		<b>SESSION TOPIC: ENERGY-3</b>		<b>SESSION TOPIC: INFRA-3</b>
		<b>Chairman of Session 15 – Prof. YIN XIN ZHOU</b>		<b>Chairman of Session 16 – Dr. RINI ASNIDA</b>
13:00-13:20	EN9-P167	Influence of Injection Rate and Viscosity on Hydraulic fracturing Behaviour of Granite <b>S. G. Jung, M. B. Diaz, L. Zhuang, K. Y. Kim, H. S. Shin, S. Yeom and J. H. Jung</b>	IN9-P48	Engineering Geological Investigations and Rock Mass Characterization for a Road Tunnel in the Himalayas <b>R. Bhasin, A. Aarset and T. Pabst</b>
13:20-13:40	EN10-P169	Rock Mechanical Properties Modeling Of “GE” Exploration Wells to Prevent Wellbore Instability <b>D. R. Febriansanu, E. Andhini, B. S. Pambudi, N. T. Santoso and A. H. Lukman</b>	IN10-P135	Coupling Analysis of Rock Mass and Water for Debris Flow on a Rock Slope by DDA (Discontinuous Deformation Analysis) and MPS (Moving Particle Simulation) Method <b>M. Kuno, S. Miki, Y. Ohnishi and T. Sasaki</b>
13:40-14:00	EN11-P100	Reservoir Simulation of Part of Yurubcheno-Tokhomskiye Oil Field Based on Geological Geomechanical Model	IN11-P33	Experimental Study of Sodium Silicate Grouting Material: Characterization and Mechanical Performances

Time	Code	ROOM A: INDONESIA ROOM (3 <sup>rd</sup> Floor)	Room B: BALI ROOM (2 <sup>nd</sup> Floor)	
		Y. A. Kashnikov, S. G. Ashikhmin, D. V. Shustov, S. Y. Yakimov and A. E. Kukhtinskii		R. S. Putranto, H. Shimada, T. Sasaoka, S. Wahyudi, S. Fujita and Y. Kanemasu
14:00-14:20	EN12-P149	Development of Source Locating Technique and its Validation <b>S. Choi and S. Jeon</b>	IN12-P186	Hydraulic Fracture Testing for the Xe Pian - Xe Namnoy HPP <b>R.J. Longden and G. Klee</b>
14:20-14:40	EN13-P139	Model-Based Quantitative Rock Mass Classification with Geophysical Data <b>T. Takahashi</b>	IN13-P82	Application of Chain Conveyor Cutter (CCC) method to Construction of Ocean Disposal Sites <b>S. Matsumoto, H. Shimada, T. Sasaoka, S. Ikuta and T. Sakiyama</b>
14:40-15:00	EN14-P43	Wellbore Stability Analysis during Underbalanced Drilling of Horizontal Wells Using Mogi-Coulomb Criterion <b>J. Zhou, S. He, W. Wang, X. Luo and Y. Zhang</b>	IN14-P99	Slope Stability Analysis Considering the Variability of Hydraulic Conductivity under Rainfall Infiltration. Case Study: Sangun Mountainous, Fukuoka Prefecture, Japan <b>H. Pachri, Y. Mitani and H. Ikemi</b>
		<b>Keynote Lecture</b>		
15:00-15:30	KL-9	Role of Geomechanics in Mining Development in Tropical Region <b>Dr. Suseno Kramadibrata</b>		
15:30-16:00	Coffee Break			
16:00-18:00		Closing Ceremony (RABC)		

## Poster

Tuesday, October 18 (Core Time 15:00-16:00) – Wednesday, October 19

Code	Title
PO1-P13	Uniaxial Compressive Strength Effects on Abrasive Waterjet Cutting Performance for Rock Excavation <b>TM. Oh, ES. Park, GC. Cho and GW. Joo</b>
PO2-P32	Determining the Effect of Texture Coefficient on Performance of Diamond Wire Machines <b>D. Tumac, S. Er, E. Avunduk, M. Basyigit, H. Copur and C. Balci</b>
PO3-P61	Rock Strength Characteristics of Warukin Formation (KIDECO) and Field Applications <b>HY. Kim, K. Setiadi and GN. Park</b>
PO4-P74	A 3D Distinct Element-Based Model for Deformation and Failure of Rock <b>T. Nishimura, K. Fumimura, M. Kohno and D. Mitsuhashi</b>
PO5-P88	Evolution of Rock Permeability Evaluated by Coupled Thermal-Hydraulic-Mechanical-Chemical Model <b>H. Yasuhara, N. Kinoshita and K. Kishida</b>
PO6-P108	Correlating Fracture Properties of Saturated Sedimentary Rocks with Compressive Strength <b>D. G. Roy, T. N. Singh and J. Kodikara</b>
PO7-P111	Physical and Mechanical Properties of Artificial Rock based on Clay Mineral Content and Type <b>M. Kohno, Y. Takehara and T. Nishimura</b>
PO8-P112	Experimentation of Estimation Rippability on Jointed Rock Mass <b>G. T. V. Herman, H. Hasan, F. D. Mustika and J. Suhadha</b>
PO9-P137	Stability Assessment of Fractured Natural Slope along a Shore Road using Key Block Analysis and Discontinuous Deformation Analysis (DDA) <b>T. Nakai, Y. Maruki, K. Fukutsuka, T. Nishiumi and Y. Ohnishi</b>
PO10-P162	Applicability of NMM-DDA with Node-based Element for the Bearing Capacity of Cohesive-frictional Ground <b>R. Hashimoto, T. Koyama and M. Kikumoto</b>
PO11-P235	Coupled Hydro-Mechanical Analysis for Viscous Grout Injection in a Rock Joint <b>JW. Lee, AR. Kim, HM. Kim, M. Yazdani and ES. Park</b>
PO12-P234	Impact of Well Orientation on the Geomechanical Stability of Aquifer System during CO <sub>2</sub> Injection <b>AR. Kim, JW. Lee and HM. Kim</b>

- PO13-P38 Dependence of Dynamic Properties of Longyou Sandstone on Heat-Treatment Temperature and Loading Rate  
**W. Yao, Y. Xu and K. Xia**
- PO14-P50 Stress Dependency of Permeability in High Temperature Fractured Granite  
**N. Watanabe, M. Egawa and K. Sakaguchi**
- PO15-P58 Correction Model for Strength Parameters of a Multistage Triaxial Compression Test on Sandstone  
**X. Shi, L. Liu, Y. Meng, S. Mao, W. Wang, J. Wu and C. Wen**
- PO16-P66 Hydraulic Fracturing in Inada Granite under Brittle-Ductile Condition  
**M. Egawa, N. Watanabe and K. Sakaguchi**
- PO17-P75 Effect of Difficult Ground Conditions on Double Shield TBM Performance  
**E. Avunduk, A. S. Mamaghani and D. Tumac**
- PO18-P81 Numerical Simulation on Shear Behavior of Rock Discontinuities under Various Thermal, Hydraulic and Mechanical Conditions  
**T. Kim, S. Jeon and SB. Choi**
- PO19-P91 Integrated Evaluation of In-situ Stress Measurement and Borehole Scanning Result for Estimation of Rock Stress State in Pohang Basin  
**S. H. Bae, S. Jeon, KB. Min and J.S. Kim**
- PO20-P116 Application of Rock Mass Quality Rating (RMQR) and Rock Mass Classification System at Andesite Open Pit Mining in West Sumatera  
**M. A. Fikri, and Y. Azzuhry**
- PO21-P118 Strain and Strength of Saturated and Dried Rock Samples Under a Freeze-Thaw Cycle  
**R. A. Sudisman, T. Yamabe and M. Osada**
- PO22-P128 Unloading Crack of Hard Rock and its Restraining Support Method: Case Study in a Large Underground Cavern with High Geostress Condition  
**Q. Jiang, YL. Fan, XT. Feng, Y. Li, W. He and GF. Liu**
- PO23-P141 Study a Correlation of Ultrasonic Wave and Numerical Modeling under Biaxial Load Test in Laboratory Scale  
**Herman, N.P. Widodo, I. Arif and B. Sulistianto**
- PO24-P144 Study of Physical and Numerical Model in Determination of Fracture Toughness Mode I Using Three Point Bending and Brazilian Test for Andesite, Limestone and Cement Paste  
**S. Aqla, N.P. Widodo and M.A. Rai**
- PO25-P145 A Study on The Extraction of Slope Surface Orientation using LIDAR with Respect to Triangulation Method and Sampling on The Point Cloud  
**S. Lee and S. Jeon**
- PO26-P163 Development of Hydraulic Stimulation Simulator for Comprehensive EGS Stimulation Design  
**S. Parka, L. Xie, H. Yoo, KI. Kim and KB. Min**
- PO27-P201 Fluid Flow Simulation through 3-D Discrete Fracture Networks  
**N. Huang, Y. Jiang, R. Liu and B. Li**

- PO28-P25 Estimation of Rock Mass Stress State Based on Convergence Measurement during Gallery Excavation  
**K. Aoyagi, M. Nago, K. Kamemura and K. Sugawara**
- PO29-P39 Anisotropic Distribution of the Rock Mass Resistant Coefficient around a Circular Tunnel in Jointed Rock Masses  
**H. Tu and C. Qiao**
- PO30-P47 Travel Distance Prediction Analysis for Work Safety Distance On The Potential of Mining Slope Failure in Indonesia  
**R. R. Putra and Y. Azzuhry**
- PO31-P72 Numerical Simulation of Transient Heat Conduction in Anisotropic Medium Based on SPH-FDM Coupling Algorithm  
**X. Tao, C. Peipei , B. Bing and Z. Chenggang**
- PO32-P90 3-D Analysis of Time-dependent Behavior of Tunnel Crossing Weak Rock Formation  
**J. Kodama, S. Tabata, D. Fukuda, Y. Fujii, H. Murayama, H. Niwa and A. Sainoki**
- PO33-P109 Implementation of Study Rockfall Hazard Rating System (RHRS) Method for Slope Stability Analysis at Samarinda Seberang District, East Kalimantan, Indonesia  
**N. Rohmah, T. Trides, M. Fitra, G. I. Santoso and Suhbajir**
- PO34-P147 Experimental Study on the Measurements of Electrical Impedance and P-wave Velocity of a Low Permeable Rock Core during the Displacement of Saturated Brine by CO<sub>2</sub> Injection  
**H. Honda, M. Imasato, S. Takaki, H. Ikemi, K. Kitamura and Y. Mitani**
- PO35-P165 Rock Slopes Stability Evaluation Based on Comparison Empirical Methods “Slope Mass Rating” and Analytical Method at Discontinuities Rock Mass Condition (Case Study at Sandstone Mines, Tani Aman Village, Loa Janan Sub District, Samarinda, East Kalimantan, Indonesia)  
**T. Trides, J. P. Londa and P. Laksono**
- PO36-P215 Stick-Slip Behavior of Rock Discontinuities and Its Implications in the Estimation of Strong Motions during Earthquakes  
**N. Iwata, K. Adachi, Y. Takahashi and Ö. Aydan**
- PO37-P37 A Review of the Non-destructive Testing Methods to Evaluate Tunnel Lining Integrity  
**Y. Gao and Y. Jiang**
- PO38-P96 Analysis of a Geothermal Double-well System Based on Numerical Simulation and In-situ Tracer Test  
**S. Luo, E. Song and Z. Zhao**
- PO39-P191 Correlation between Full Core and Half Core Specimen for Point Load Index in Poboya River Reef Gold-Silver Deposit  
**D. Kusumanto, A. B. Pramusi, C. Nursetyo and A. Rahman**
- PO40-P226 Prediction of Rock Failure Strength Based on Comparison Between Water Surface and Finite Element Analysis (FEA) Steady State  
**Y. Sugianto, M. A. Azizi and H. Saliman**

- PO41-P Numerical and Analytical Study on the Plane Elastic Waves Propagating in Layered Saturated Porous Half-Space  
**P. Li and E. Song**
- PO42-P214 Elasto-Plastic Analysis of Deformations in Twin Interacting Horse Shoe Tunnels  
**I. A. Khan, K. Venkatesh and R. K. Srivastava**
- PO43-P11 Core Disking Analysis to Characterize Potential High Horizontal Stress in Open Pit Mine  
**J. W. Tu' u, I. Arif, N. P. Widodo and E. Widijanto**
- PO44-P3 Plastic Zone Prediction Using Finite Element Method on Cikoneng Decline Tunnel at PT. Cibaliung Sumberdaya  
**B. P. Putra, B. Sulistianto, G. M. Simangunsong and N. P. Widodo**

## Proceeding

- | Code     | Title   |
|----------|---|
| PR1-P7   | Evaluation of Shear Strength of Rock Discontinuities on Direct Shear Test Result of Sawtooth Joint Models<br><b>Kartini, Jackie, G. M. Simangunsong and B. Sulistianto</b>  |
| PR2-P156 | Measurement Of Blast Fragmentation Using Image Processing Analysis 3D Photogrammetry<br><b>S. Hidayat, G. M. Simangunsong and D. Suwardhi</b>   |
| PR3-P124 | Application of Clustering System to Analyze Geological, Geotechnical and Hydrogeological Data Base according to HC-System Approach<br><b>L. E. Widodo, T. A. Cahyadi, S. Notosiswoyo and E. Widijanto</b>                     |
| PR4-P30  | Experimental Investigation of Contact Area on Wave Propagation and Closure Deformation of Rock Joints<br><b>N. N. Li, J. C. Li, L. F. Rong and H. B. Li</b>   |
| PR5-P105 | The Development of Wetmuck Classification as a Tool for Controlling and Monitoring Mudrush Hazard (PT Freeport Indonesia Wetmuck Case History - Part I)<br><b>L. I. Rachmad, A. Sjadat and A. P. Ginting</b>                  |
| PR6-P224 | A Comparison on Rock Slope Stability Analysis of Phu kam Copper-Gold Open Pit Mine, Laos PDR by Limit Equilibrium, Finite Element and Finite Difference Methods<br><b>K. Manivang, G. M. Simangunsong and R. K. Wattimena</b> |