## **Technical Session 1A**

ber, 2018	Room: Narcissus Hall (水仙厅)
Theme: Deep rock mechanics and mining theory	
sion Chair	
Time	Technical Session
	IC3G 18-002
14.00 - 14.15	Jianbo Zhu (Tianjin University)
11.00 11.10	Rock Fatigue Characteristics Subject to Repetitive
	Impacts
	IC3G 18-003
14:15 - 14:30	Yury Derbin (University of Nottingham)
11.10 11.00	Modelling surface subsidence during underground
	coal gasification
	IC3G 18-029
14:30 - 14:45	Jianfeng Liu (Sichuan University)
	Time-Dependent Deformation Behavior of
	Unloading-Fractured Marble IC3G 18-042
14:45 - 15:00	Diyuan Li (Central South University)
	Mechanical characteristics of dry and saturated sandstone under triaxial loading and unloading tests
	IC3G 18-063
15:00 - 15:15	Si Kai (China University of Mining and
	Technology- Beijing)
	Energy Analysis on the Mechanism of Acoustic
	Emission under Cyclic Loading and Unloading
15:15 - 15:30	IC3G 18-084
	Yi Xue (Xi'an University of Technology)
	Geomechanical and seepage evolution characteristics
	of coal masses under mining-induced stress paths
	Theme: Do         ion Chair         Time         14:00 - 14:15         14:15 - 14:30         14:30 - 14:45         14:45 - 15:00         15:00 - 15:15

### **Technical Session 1B**

23 September, 2018

Theme: Unconventional oil and gas extractions		
Sess	ion Chair	
	Time	Technical Session
		IC3G 18-006
	14:00 - 14:15	Qiao Lyu (Central South University)
	14.00 - 14.15	Fractal characteristics and acoustic emission of a
		low-clay shale after CO2-water-rock interactions
		IC3G 18-095
		Nurudeen Yekeen (Universiti Teknologi
	14:15 - 14:30	PETRONAS, Malaysia.)
		Laboratory characterization of nanoparticles-
		stabilized foam for fracturing fluid applications
	14:30 - 14:45	IC3G 18-115
		Jianguo Wang (China University of Mining and
23 Sep.		Technology)
PM		Fracturing behavior of shale reservoirs in water, N2
		and SC-CO2 fracturing process
	14:45 - 15:00	IC3G 18-141
		Fei Wang (China University of Petroleum,
		Beijing)
		Fracturing-fluid Migration Front Progression in
		Fractured Gas Shale: Experiment and Numerical
		Analyses
	15:00 - 15:15	IC3G 18-161
		Ngai Wong (The University of Hong Kong)
		Advances and Challenges of Using Grain-Based
		Model in Geomechanics Modeling

## **Technical Session 2A**

23 September, 2018

Room: Narcissus Hall (水仙厅)

		Theme: Mining Engineering
Sess	sion Chair	
	Time	Technical Session
23 Sep. PM	15:45 - 16:00	IC3G 18-026 Ratan Das (IITB) Assessment causes of overbreak and control measures in underground tunnel during construction stage-A case study in central Himalayas (HP)
	16:00 - 16:15	IC3G 18-053 Ratan Das (IITB) Geological and Geotechnical Problems Encountered during Construction of Butterfly Valve Chamber and Penstock Assembly Chamber of Tehri Pumped Storage Plant
	16:15 - 16:30	IC3G 18-055 Zhiqiang He (Sichuan University) Study on the Mechanical Behavior of Coal and Rock of Different Mining Layouts Considering In-Situ Conditions at Depth
	16:30 - 16:45	IC3G 18-077 Tao Xu (Northeastern University) 3D modelling of microwave induced damage and fracturing of hard rocks
	16:45 - 17:00	IC3G 18-085 Qingwen Li (University of Science and Technology Beijing) Experimental study on crushing dissipated energy of deep granite under triaxial geostress condition
	17:00 - 17:15	IC3G 18-102 Guojun Zhang (China University of Mining and Technology, Beijing) The immediate roof periodic fractures of suberect and extremely thick coal
	17:15-17:30	IC3G 18-102 Greg You (Federation University Australia) Effect of faults on stability of partially saturated rock slope

# **Technical Session 2B**

23 September, 2018

Theme: Petroleum Engineering		
Sess	sion Chair	
	Time	Technical Session
23 Sep. PM	15:45 - 16:00	IC3G 18-081 Tianshou Ma (Southwest Petroleum University) Use of risk-controlled model for predicting collapse pressure of vertical and inclined wells
	16:00 - 16:15	IC3G 18-109 Fengqiang Gong (Central South University) Dynamic strength criterion of marble under low loading rate
	16:15 - 16:30	IC3G 18-121 Abhijit Chaudhuri (IIT Madras) Comparisons of residual oil recovery by different types of surfactant and polymer flooding in five-spot wells setup
	16:30 - 16:45	IC3G 18-149 Ratan Das (IITB) Physical and Numerical Model to Investigate Shallow Tunnel Instabilities in Loose Soil
	16:45 - 17:00	IC3G 18-152 J.H. Zhang (Sichuan University) Research on the additional resistant energy effect for supporting structure to surrounding rock in underground powerhouse

# **Technical Session 3A**

24 Septem	ber, 2018	Room: Narcissus Hall (水仙厅)	
	Theme: Civil Geotechnical Engineering		
Sess	sion Chair		
	Time	Technical Session	
24 Sep. AM	08:30 - 08:45	IC3G 18-009 Jianchun Li (Southeast University) Ground motion at a trapezoidal hill under seismic waves induced by underground exploitation	
	08:45 - 09:00	IC3G 18-049 Honglue Qu (Southwest Petroleum University) Seismic Response Characteristics of Stabilizing Pile Based on Elastic-plastic Performance	
	09:00 - 09:15	IC3G 18-093 Wen Zhang (State Key Laboratory of Hydraulics and Mountain River Engineering, College of Water Resources and Hydropower) Effect of deep unloading zone on working performance of arch dam abutment: a case study in the Yebatan Hydropower Station	
	09:15 - 09:30	IC3G 18-112 Prakash Luitel (Tribhuvan University) Study of geo-mechanical characteristics and stability of half-tunnel at Dharapani along Besisahar - Chame road section, Manang	
	09:30 - 09:45	IC3G 18-155 Yulong Chen (Tsinghua University) Monitoring and early warning of rainfall induced soil slope failure using elastic wave velocity	
	09:45 - 10:00	IC3G 18-156 Honglue Qu (Southwest Petroleum University) A Review of Research on Dynamic Interaction between Soil and Buried Pipeline under Earthquake	

#### **Technical Session 3B**

24 September, 2018

Theme: CO2 sequestration technologies and nuclear waste disposal, and Geothermal energy		
Session Chair		
-	Time	Technical Session
24 Sep. AM	08:30 - 08:45	IC3G 18-025 Changbing Zhang (Sichuan University) 3-D Numerical Prediction of Vortices Group in Multiple Francis Turbines based on RNG-ELES Approach
	08:45 - 09:00	IC3G 18-088 Dornadula Chandrasekharam (Indian Institute of Technology Hyderabad) High heat generating granites of Saudi Arabian shield. Future candidates for CO2 emissions reduction and climate mitigation
	09:00 – 09:15	IC3G 18-129 Bisheng Wu (CSIRO/Tsinghua university) Effect of well layout on the output performance of enhanced geothermal system with multiple wells and areal flow
	09:15 - 09:30	IC3G 18-133 Zhenlong Song (State Key Laboratory of Coalmine Dynamics and Control, Chongqing University) An Acoustic loading plant Emission Devicend and Its Application
	09:30 - 09:45	IC3G 18-137 Wei Wu (Nanyang Technological University) Understanding the fundamentals of injection-induced seismicity
	09:45 - 10:00	IC3G 18-151 L. Zhuang (Korea University of Science and Technology) Preliminary laboratory study on initiation and propagation of hydraulic fractures in granite using X-ray Computed Tomography

# **Technical Session 4A**

24 September, 2018		Room: Narcissus Hall (水仙厅)
Theme: Geo-Environmental Engineering		: Geo-Environmental Engineering
Sess	sion Chair	
	Time	Technical Session
24 Sep. AM	10:15-10:30	IC3G 18-017 Yu Zhang (Beijing Jiaotong University) Calculation methods of seepage coefficient for clay based on the permeation mechanism
	10:30-10:45	IC3G 18-051 Ying Wang (Beijing Normal University) The application of a geographically weighted logistic regression model for earthquake-triggered landslide susceptibility mapping on different geographic scales
	10:45-11:00	IC3G 18-073 Xiaoshuang Li (Jiangxi University of Science and Technology) Study on the law of ground pressure obliquity effect with gently inclined thin to medium thickness phosphate body from open-pit to underground
	11:00-11:15	IC3G 18-099 Qiang Zhang (Institute of Rock and Soil Mechanics (IRSM), Chinese Academy of Sciences) Permeability evolution of fracture during slipping under normal stress condition
	11:15-11:30	IC3G 18-124 Yixin Zhao (China University of Mining and Technology, Beijing) Neutron radiography study of water imbibition in unsaturated sandstone: A time-fractal model to predict the dynamic of wetting front
	11:30-11:45	IC3G 18-131 Maged Al Mandalawi (Federation University Australia) Extension strain initiation and distribution around open pit slope

#### **Technical Session 4B**

24 September, 2018		KOOIII. HIDISCUS Hall (天谷八)	
	Theme: Water resources development and protection		
Sess	sion Chair		
	Time	Technical Session	
24 Sep. AM	10:15-10:30	IC3G 18-057 Licheng Sun (Sichuan University) An investigation on the effect of divergent angle on	
	10:30-10:45	performance of Venturi-type bubble generators IC3G 18-096 Baoquan Yang (Sichuan University) Overall Stability Analysis of a High Arch Dam Based on Physical Modeling and Numerical Simulation	
	10:45-11:00	IC3G 18-123 Abhijit Chaudhuri (IIT Madras) Estimation of permeability field from sparse measurements of local permeability and water table fluctuations	

24 September, 2018