

JSRM2017 Program (Venue: Kobe International Conference Center)

January 10, 2017 (Tue.)

Room	9:00-9:15	9:15-10:00	10:30-12:00	12:00-13:00	13:00-14:30	15:00-15:45	16:15-17:00	17:30-19:30
301	Opening	Keynote Lecture 1	Tunnel 1	Lunch	Tunnel 2	Poster presentation (3rd floor)	Keynote Lecture 2	Banquet (Reception Hall)
501	/	/	Slope Stability and Disaster Prevention		Earthquake and Disaster Prevention		/	
502	/	/	Permeability and Seepage Analysis		In-situ Measurement 1		/	

January 11, 2017 (Wed.)

Room	9:00-10:15	10:45-12:00	12:00-13:00	13:00-14:30	15:00-16:30	16:50-17:35	17:40-18:00
301	Tunnel 3	Cavern and Excavation	Lunch	In-situ Measurement 2	Measurement of Stress and Strain and Disaster Prevention	Keynote Lecture 3	Closing
501	Strength	Dam		Underground Storage and Waste Disposal	Mining Engineering	/	/
502	Discontinuity 1	Discontinuity 2		Laboratory Measurement 1	Laboratory Measurement 2	/	/

- 『Keynote Lecture 1』 / January 10, 2017 (Tue.) 9:15 - 10:00 at Room-301
Lecturer: Prof. Satoru Yamashita (International Center for Elementary Particle Physics, The University of Tokyo)
- 『Keynote Lecture 2』 / January 10, 2017 (Tue.) 16:15 - 17:00 at Room-301
Lecturer: Prof. Shunsuke Sakurai (Kobe University)
- 『Keynote Lecture 3』 / January 11, 2017 (Wed.) 16:50 - 17:35 at Room-301
Lecturer: Dr. Hideshi Kaieda (Central Research Institute of Electric Power Industry)

Presentation Program

(1) Oral presentations

■ 『Tunnel 1』 / January 10, 2017 (Tue.) 10:30-12:00 in Room-301

Presentation number	Time	Title and Authors
7	10:30-10:45	Assessment of the volcanic tunnel ground by increasing number of crack of hydrothermal alteration boring cores Kenji OKAZAKI, Shusaku YAMAZAKI, Toshiyuki KURAHASHI, Yoshihiko ITO, Hiroumi NIWA, Hideyuki MURAYAMA
4	10:45-11:00	Development of an estimation system for tunnel support considering geology Shinji UTSUKI, Masashi NAKAYA, Kazuhiro ONUMA
36	11:00-11:15	A new method for quantitative analyzing of crack distribution in rockmass, and its applying to a tunneling site Hayato TOBE, Yasuyuki MIYAJIMA, Suguru SHIRASAGI, Takuji YAMAMOTO
121	11:15-11:30	Prediction of geological condition ahead of tunnel face by elastic wave reflection method Yasushi GUNJI, Al Adzam Shah AZMAN, Masahiro SOYA, Taku ANDO, Masaru OHNISHI
16	11:30-11:45	Application of directional borehole radar for prospecting groundwater path ahead of tunnel face Tomoaki MATSUSHITA, Kazuhiko MASUMOTO, Suguru SHIRASAGI, Kazushige WADA, Takashi UEKI, Shinsuke KARASAWA
26	11:45-12:00	Application of system for measurement of water inflow ahead of tunnel face using extra long horizontal boring Yuko OKADA, Kazuhiro MASUMOTO, Keita IWANO, Shoji SENO, Junichi KAWABATA, Yoshinori KITAMURA

■ 『Tunnel 2』 / January 10, 2017 (Tue.) 13:00-14:30 in Room-301

Presentation number	Time	Title and Authors
96	13:00-13:15	Geological exploration system ahead of tunnel face using water-powered down-the-hall hammer Goro IWATA, Satoshi ITO, Hideo KINASHI, Yusuke KINOMURA
50	13:15-13:30	Evaluation of multiple fractured mudstone for tunnel excavation Akira KOYAMA, Kenichi ITO, Yoshinori FURUICHI, Nozomu NARITA, Takuji YAMAMOTO, Kensuke DATE, Yasuhiro YOKOTA
98	13:30-13:45	Watching face stability by using settlement gage installed on preceding levee crown Tomohiro KOBAYASHI, Satoshi ITO, Hideo KINASHI, Goro IWATA, Koji TSUJIMURA
91	13:45-14:00	Study on simulation analysis of deformed tunnel in Oyubari road tunnel on Doto expressway Fumihiro KATO, Atsushi UNEDA, Koichi FUJIWARA
61	14:00-14:15	Deformation mechanism and development of deformation for tunnel swelling condition Tomoya YOSHIOKA, Nobuharu ISAGO, Toshiaki ISHIMURA
117	14:15-14:30	Simplified multi-scale analysis for stability evaluation of a tunnel in swelling ground Hitoshi UNOSAWA, Junji KATO, Takashi KYOYA

■ 『Slope Stability and Disaster Prevention』 / January 10, 2017 (Tue.) 10:30-12:00 in Room-501

Presentation number	Time	Title and Authors
53	10:30-10:45	Precursory topographical characteristics recognized in locations of catastrophic landslides - results of topographical interpretation using lidar-DEMS before events - Yuichiro NISHIKANE, Takeshi KAWAGOE, Atsushi HASEGAWA, Takuya URAKOSHI, Takehiro OHTA, Soichiro MIYOSHI, Naoya ONO, Kyoko FURUHASHI
24	10:45-11:00	Physical modelling of undercut slope reinforced by shear pins Kun FANG, Kana MINAMIDE, Thirapong PIPATPONGSA, Takafumi KITAOKA, Hiroyasu OHTSU
18	11:00-11:15	Effective placement of shear pins for stabilizing undercut slopes Kana MINAMIDE, Kun FANG, Thirapong PIPATPONGSA, Takahumi KITAOKA, Hiroyasu OHTSU
74	11:15-11:30	Stability evaluation for slow moving rock slope Hiroaki KOBAYAKAWA, Tomohiro NAYA, Haruhiko KUNO
92	11:30-11:45	A study on an electrode layout of electrical prospecting at a fill slope in Chiang Mai, Thailand Shunichiro ITO, Takafumi KITAOKA, Takao AIZAWA, Hiroyasu OHTSU
14	11:45-12:00	Experimental study on influence of rockfall motion under dry and wet slope surface Akito TSUCHIDA, Masanori KOHNO, Katsuya KITASAKO, Yasuo IKEZOE, Tsuyoshi NISHIMURA

■ 『Earthquake and Disaster Prevention』 / January 10, 2017 (Tue.) 13:00-14:30 in Room-501

Presentation number	Time	Title and Authors
54	13:00-13:15	Experimental and theoretical Study about seismic stability of rock slope with discontinuous surface Kou ADACHI, Naoki IWATA, Ryouji KIYOTA, Ömer AYDAN, Naohiko TOKASHIKI
71	13:15-13:30	Experimental and theoretical study on stick-slip behavior and its implications in the estimation of fault movement Naoki IWATA, Yasunori TAKAHASHI, Koh ADACHI, Ömer AYDAN, Naohiko TOKASHIKI
38	13:30-13:45	Numerical simulation for surface fault displacement based on the characterized source model Masataka SAWADA, Yoshiaki SHIBA
40	13:45-14:00	Fundamental study on the earthquake response analysis by numerical manifold method Kazuhiro SAKAOKA, Ryota HASHIMOTO, Tomofumi KOYAMA
78	14:00-14:15	Evaluation of collapse range of discontinuous rock slope failure during earthquake using numerical simulation Makoto ISHIMARU, Tadashi KAWAI
5	14:15-14:30	Risk responses and effective measures against fault rupture hazards Kazuo TANI

■ 『Permeability and Seepage Analysis』 / January 10, 2017 (Tue.) 10:30-12:00 in Room-502

Presentation number	Time	Title and Authors
47	10:30-10:45	Water migration into underground cavern considering stress and temperature dependent permeability of fractured rocks AKM Badrul ALAM, Yoshiaki FUJII, Noritaka ARAMAKI, Katsuhiko KANEKO
55	10:45-11:00	Modeling fluid flow in three-dimensional stochastic discrete fracture networks Na HUANG, Yujing JIANG, Richeng LIU
95	11:00-11:15	Hydrogeomechanical properties of excavation damaged zones along galleries in different depths of the Horonobe underground research laboratory Kazuhei AOYAGI, Eiichi ISHII
116	11:15-11:30	Formation of preferential pathways and those influences on macroscopic permeability of fractured rocks Michito SHIMO
120	11:30-11:45	Three dimensional groundwater flow analysis using virtual tunnel model Kenichi HOSONO, Hiroyuki KAWAHARA, Masaru SATO
30	11:45-12:00	Study on applicability of the element free Galerkin method to the seepage analysis of natural ground Hayato SUZUKI, Fumio IDA, Go ORUKAWA, Yoshinobu NISHIMOTO

■ 『In-situ Measurement 1』 / January 10, 2017 (Tue.) 13:00-14:30 in Room-502

Presentation number	Time	Title and Authors
23	13:00-13:15	Study on the underground strain measurement in mudstone layer during reverse concreting excavation work Futa NAKAZAWA, Kiyoshi NUMAKAMI, Yasushi FURUGAICHI, Nozomu TAKAKURA, Shogo MIURA, Yuan ZHANG
109	13:15-13:30	Measurement performance test of a new low-cost sensor for GPS ground displacement monitoring Shusaku TERADA, Shinichiro NAKASHIMA, Norikazu SHIMIZU, Akira TAKEISHI, Tomohiro MASUNARI, Wataru SATO
108	13:30-13:45	Effect of error correction in GPS-based displacement Measurement on a large slope Yuichiro HAYASHI, Nguyen Trung KIEN, Shinichiro NAKASHIMA, Norikazu SHIMIZU
100	13:45-14:00	Monitoring and on-site visualization for rock structures by using non-electric sensors Shinichi AKUTAGAWA, Takuji YAMAMOTO, Toru HABA, Koji TAKEYA, Masayuki UJIHARA
94	14:00-14:15	Verification experiment of rockfall risk evaluation method by remote non-contact measurement Fumiaki UEHAN, Shintaro MINOURA
11	14:15-14:30	Long-term evaluation of excavation damaged zone by optical measurement in Horonobe underground research laboratory Koji HATA, Sumio NYUNOYA, Kazuhei AOYAGI

■ 『Tunnel 3』 / January 11, 2017 (Wed.) 9:00-10:15 in Room-301

Presentation number	Time	Title and Authors
106	9:00-9:15	Simplified evaluation methods for leaching amount of arsenic in tunnel spoils Koichi OKUZAWA, Kazuki IDE, Toru KUWAHARA, Yoshiaki NAKATO, Taiki KUBO, Katsuaki KOIKE
113	9:15-9:30	Effect of tunnel support stiffness on development of temporary plastic zone Takeyuki ICHIDA, Tetsuya KANEKO, Nobutaka OHARA
128	9:30-9:45	Effects on landslide ground with blasting for tunnel excavation of Tenjin second tunnel on the Trans-Hokkaido expressway (Otaru to Yoichi) Masafumi KAWAGUCHI, Noriyuki KOBAYASHI, Wataru MORIWAKI, Youji YOKOYAMA
90	9:45-10:00	Basic study on workability and bond strength of ground improvement rock bolt Takashi MORISE, Keisuke SHIMAMOTO, Kazuhide YASHIRO
37	10:00-10:15	Fundamental study on mechanical behavior of shallow overburden tunnel by using Mohr-Coulomb failure criteria Muhammad Shehzad KHALID, Ying CUI, Kiyoshi KISHIDA

■ 『Cavern and Excavation』 / January 11, 2017 (Wed.) 10:45-12:00 in Room-301

Presentation number	Time	Title and Authors
46	10:45-11:00	Study on evaluation of cutter bit wear for shield machine in gravel ground Hiroaki YAMAMOTO, Takashi SASAOKA, Hideki SHIMADA, Koji NOGUCHI, Yoshie OMAE, Tetsuo HATORI
101	11:00-11:15	Drilling performance of percussion bit equipped with ballistic tips Kuniyuki MIYAZAKI, Tetsuji OHNO, Hirokazu KARASAWA, Shinichi TAKAKURA, and Akhmadi EKO
105	11:15-11:30	Excavation analysis of large underground cavern using multiple yield model in anisotropic rock Kazuto TABELI, Mori UTSUNO, Seiji MORIKAWA, Koichi FUJIWARA, Naotaka TAKESHIMA
125	11:30-11:45	Mechanism of controlling blasting fractures by vacant holes Hiroshi YAMACHI, Jun-ichiro NAKAMORI, Koji UENISHI, Ryo SAKAMOTO
118	11:45-12:00	Stability evaluation of abandoned lignite mining cavern by limit load analysis Yu WATANABE, Junji KATO, Takashi KYOYA

■ 『In-situ Measurement 2』 / January 11, 2017 13:00-14:30 in Room-301

Presentation number	Time	Title and Authors
119	13:00-13:15	A mechanical method for visualization of deformation in NATM tunnel structures Haihua ZHANG, Shinichi AKUTAGAWA, Yasuhiro AONO, Koji TSUJIMURA
49	13:15-13:30	Experimental verification of detection accuracy of thin sand layer lying between mudstones and evaluation of grouting area by resistivity tomography Takehiko IMASATO, Yoshikatsu MATUBARA, Takuji YAMAMOTO, Yu KOIZUMI, Kumiko SUDA
70	13:30-13:45	Consideration of the factor on gradual road surface upheaval in expressway tunnel under use Kenya YASUDA, Norifumi HAGA, Nozomu SAITO, Nobuyuki YAMBE, Tatsuru SAITO, Takahisa TSURUHARA, Yui SHIRAKAWA
79	13:45-14:00	Study for ground deformation and earthquake motion observed by seismograph networks (Hi-net, KiK-net) around ILC Kitakami candidate site Ichiro SEKINE, Hitoshi HAYANO, Masakazu YOSHIOKA, Tomoyuki SANUKI, Satoru YAMASHITA, Katsuhiko SHIOMI
124	14:00-14:15	Trial of monitoring elastic waves designed to detect temporal changes in subsurface structure of soft ground Hironori KAWAKATA, Issei DOI, Naoki TAKAHASHI1, Masayuki NAKAYAMA
17	14:15-14:30	An estimation of elastic wave velocity of rock mass around the water sealed rock oil tank by using seismic interferometry Naruki WAKABAYASHI, Kunihiro JYODAI, Toshifumi WATABE, Syunichi KATAOKA, Keisuke FUKUSHIMA

■ 『Measurement of Stress and Strain and Disaster Prevention』 / January 11, 2017 (Wed.) 15:00-16:30 in Room-301

Presentation number	Time	Title and Authors
9	15:00-15:15	Study of a stability analysis method for rock slopes that considers the deterioration caused by plasticity strain Katsuhito AGUI, Takahiro EGUCHI, Yasuhito SASAKI, Toshiyuki KURAHASHI
12	15:15-15:30	Estimation of rock mass stress state based on the convergence measurement result during tunnel excavation Katsumi KAMEMURA, Kazuhei AOYAGI, Makito NAGO, Kentarou SUGAWARA, , Makoto MATSUBARA
107	15:30-15:45	Estimate of the stress state of earthquake source region in a South African deep gold mining by Diametrical Core Deformation Analysis (DCDA) Shuhei ABE, Yasuo YABE, Takatoshi ITO, Masao NAKATANI, Gerhard HOFMANN, Hiroshi OGASAWARA
19	15:45-16:00	Stress distribution in valley using elastic solution based on isogeometric analysis Tan NGUYEN, Thirapong PIPATPONGSA, Takafumi KITAOKA, Hiroyasu OHTSU
77	16:00-16:15	Source fault drilling survey of the 2011 off the Pacific coast of Tohoku earthquake and in-situ stress measurements Weiren LIN
63	16:15-16:30	Verification of the reliability of the stress change measurement after the 3.11 earthquake in the Kamaishi mine Tatsuya YOKOYAMA, Kiyotoshi SAKAGUCHI

■ 『Strength』 / January 11, 2017 (Wed.) 9:00-10:15 in Room-501

Presentation number	Time	Title and Authors
33	9:00-9:15	Experimental study on physical and mechanical properties of artificial rock by focusing on clay mineral content and type Masanori KOHNO, Yuta TAKEHARA, Tsuyoshi NISHIMURA
56	9:15-9:30	A new shear strength criterion for rough rock joints considering shear rate Xuepeng ZHANG, Yujing JIANG
64	9:30-9:45	Application of a modified strain-softening model with diverse post-peak behaviors in a circular tunnel Xuezhen WU, Yujing JIANG
115	9:45-10:00	The influence of the gravel to the tensile strength of artificial gravelly soft rock Atsushi SAOTOME, Satoshi NAKAMURA, Koji OGAWA, Kohichi HOSODA, Akio FUNATO
25	10:00-10:15	An elasto-plastic model based on Hoek-Brown criterion Kenichi NAKAOKA, Koji HATA, Yujing JIANG

■ 『Dam』 / January 11, 2017 (Wed.) 10:45-12:00 in Room-501

Presentation number	Time	Title and Authors
66	10:45-11:00	An experimental study on shear deformation and permeability of fill dam Akihiro HISANO, Takahiro MORI, Yoshinobu NISHIMOTO, Kenichi AZUMA, Hayato SUZUKI
84	11:00-11:15	Dam foundation design at the Nam Ngiep 1 hydropower project in Lao People's Democratic Republic Takahisa TABUCHI, Makoto ASAKAWA, Mareki HANAMOTO, Yoshiki FUKUI
87	11:15-11:30	Seepage monitoring on rockfill dam based on past records Hideki SODA, Sachiko NIGO, Nobuyuki SHIRAKAWA, Kiyoshi KISHIDA
99	11:30-11:45	Resettlement site development for ethnic minority Hmong on Nam Ngiep 1 hydropower project in Laos Kenich TOMIOKA, Shoji TSUTSUI
102	11:45-12:00	Dynamic characteristics of dams evaluated using earthquake monitoring data for safety assessment Hidearki OONISHI, Masayuki KASHIWAYANAGI, Naoyuki OSADA, Seiichi HAYAKAWA

■ 『Underground Storage and Waste Disposal』 / January 11, 2017 (Wed.) 13:00-14:30 in Room-501

Presentation number	Time	Title and Authors
20	13:00-13:15	Application of impermeable wall constructed by Chain Conveyor Cutter (CCC) method in ocean disposal sites Tomohiko SAKIYAMA, Shizuo IKUTA, Yoshiaki TAKAHASHI, Shinji MATSUMOTO, Hideki SHIMADA, Takashi SASAOKA, Masatomo ICHINOSE
83	13:15-13:30	Pressure solution in rocks for HLW disposal: evaluation of Long-term permeability change of natural barrier by coupled THMC model Sho OGATA, Hideaki YASUHARA, Naoki KINOSHITA
97	13:30-13:45	Pressure solution, rock mechanics and geological disposal: another sinking process of a canister in bentonite buffer Koichi SHIN
51	13:45-14:00	Experiment study on the CO ₂ flow mechanism in two different types of porous sandstones by injecting supercritical CO ₂ Mitsunori IMASATO, Yasuhiro MITANI, Hiroaki IKEMI, Hiroyuki HONDA, Shinnosuke TAKAKI, Keigo KITAMURA
58	14:00-14:15	Experimental evaluation about carbon dioxide storativity due to the injection flow rate of low permeable rock Shinnosuke TAKAKI, Yasuhiro MITANI, Hiroaki IKEMI, Hiroyuki HONDA, Mitsunori IMASATO, Keigo KITAMURA
86	14:15-14:30	Rock mass and water coupling analysis by DDA (Discontinuous Deformation Analysis) and MPS (Moving Particle Simulation) Mikiko KUNO, Shigeru MIKI, Yuzo OHNISHI, Takeshi SASAKI, Harushige KUSUMI

■ 『Mining Engineering』 / January 11, 2017 (Wed.) 15:00-16:30 in Room-501

Presentation number	Time	Title and Authors
29	15:00-15:15	Effect of rock conditions and blasting designs on behavior of rock fragmentations in open pit mine Yoshiaki TAKAHASHI, Kotaro YAMAGUCHI, Takashi SASAOKA, Hideki SHIMADA, Takayuki FUJIWARA, Keisuke TAKEUCHI
111	15:15-15:30	AE activity induced by the coal fracturing during coal gasification Ken-ichi ITAKURA, Akihiro HAMANAKA, Fa-qiang SU, Hideki INOMATA, Ryota MIURA, Shinya SHIMAGUCHI, Gota DEGUCHI and Jun-ichi KODAMA
1	15:30-15:45	A consideration of field injection tests for enhanced recovery of methane hydrate using carbon dioxide Yojiro IKEGAWA, Hiroshi SUENAGA, Haruo KIMURA
39	15:45-16:00	Numerical study on stratum deformation during dissociation process of methane hydrate by depressurization Masayo KAKUMOTO, Yasuhide SAKAMOTO, Kuniyuki MIYAZAKI, Kazuo AOKI, Norio TENMA
62	16:00-16:15	Thermophysical properties measurement of artificial Nankai trough mud layer sample in high effective vertical stress condition Hiromitsu MORITA, Michihiro MURAOKA, Masayo KAKUMOTO, Shohei NODA, Sho KIMURA, Yasuhide SAKAMOTO, Yoshitaka YAMAMOTO
89	16:15-16:30	Evaluation of thermal conductivity using geophysical methods Kenji KUBOTA, Koichi SUZUKI, Yasuhiro FUJIMITSU

■ 『Discontinuity 1』 / January 11, 2017 (Wed.) 9:00-10:15 in Room-502

Presentation number	Time	Title and Authors
43	9:00-9:15	Development of a dynamic shear testing machine and shear properties of rock discontinuities under different loading regimes Ömer AYDAN, Naohiko TOKASHIKI, Jun TOMIYAMA, Naoki IWATA, Kou ADACHI
41	9:15-9:30	Determination of static and dynamic friction angles of rock discontinuities from tilting tests Ömer AYDAN, Naohiko TOKASHIKI, Naoki IWATA, Yasunori TAKAHASHI, Kou ADACHI
68	9:30-9:45	Effect of filling minerals on fracture permeability of granite Masaji KATO, Yoshitaka NARA, Masanori KOHNO, Toshinori SATO, Tsutomu SATO, Daisuke FUKUDA, Manabu TAKAHASHI
10	9:45-10:00	A study on estimation of rock mass classification used RQD Yuichi KOHMURA
31	10:00-10:15	Shear fracture analysis from triaxial extension tests on Kimachi sandstone Yukiyasu FUJII, Manabu TAKAHASHI, Naoki TAKAHASHI, Hyuck PARK, Takato TAKEMURA

■ 『Discontinuity 2』 / January 11, 2017 (Wed.) 10:45-12:00 in Room-502

Presentation number	Time	Title and Authors
104	10:45-11:00	Evaluation of change of deformation property in rock fracture induced by long-term hold experiments Tetsunori OKAMOTO, Hideaki YASUHARA, Naoki KINOSITA
59	11:00-11:15	Analysis of fracture surface formed from true triaxial stresses in Kimachi sandstone Minoru SATO, Manabu TAKAHASHI, Daisuke ASAHINA
28	11:15-11:30	Characteristics of fracture surface and formation mechanism in geomaterials under split-cylinder test Daisuke ASAHINA, Yukiyasu FUJII, Tomoki KAN, Takumi SHIMADA, Keiji KITAJIMA, Minoru SATO and Manabu TAKAHASHI
123	11:30-11:45	Experimental study of hydraulic fracture propagation in unconsolidated sands using X-ray CT Takatoshi ITO, Yu NAGANO
69	11:45-12:00	Measurement of rock fracture aperture from X-ray CT images based on edge detection method Shinichiro NAKASHIMA, Tomohiro ISHIKAWA, Takashi SAKAMOTO, Kiyoshi KISHIDA

■ 『Laboratory Measurement 1』 / January 11, 2017 (Wed.) 13:00-14:30 in Room-502

Presentation number	Time	Title and Authors
35	13:00-13:15	Dynamic deformation characteristics of granite under uniaxial compressive stress Naoto KAMOSHIDA, Hidekazu YAMAMOTO, Tsuyoshi SAITO
3	13:15-13:30	Creep test of Tage tuff for over nineteen years Kimihiro HASHIBA, Katsunori FUKUI, Masaki HATAKEYAMA
27	13:30-13:45	Tri-axial creep test on CO ₂ -injected mudstone Yasuki OIKAWA, Takashi TAKEHARA, and Xinglin LEI
81	13:45-14:00	Deformation mechanism of cement paste by multi-stage creep test Yuya SAKAI
93	14:00-14:15	Evaluating the deformation behavior of Horonobe mudstone using water retention curves Bimali Chaturika AMUNUGAMA, Thilini Nuwanradha ILLANKOON, Masahiko OSADA, Keisuke MAEKAWA
65	14:15-14:30	Trial development of high pressure torsional shear test system on hollow cylindrical specimens Shohei NODA, Sho KIMURA, Yasuhide SAKAMOTO, Hideki MINAGAWA, Norio TENMA

■ 『Laboratory Measurement 2』 / January 11, 2017 (Wed.) 15:00-16:30 in Room-502

Presentation number	Time	Title and Authors
114	15:00-15:15	Construction of electrical resistivity measurement system under controlled confining and pore pressure conditions and its application to rock samples Kentaro HATAKEDA, Weiren LIN, Takehiro HIROSE, Wataru TANIKAWA, Yohei HAMADA, Osamu TADAI
103	15:15-15:30	Consideration to exfoliation for Oya tuff block with microscopic observation Hideyasu TATENO, Jun IIMURA, Takafumi SEIKI
82	15:30-15:45	Non-axisymmetric deformation of tuff including bedding plane and determination of stiffness anisotropy Yota TOGASHI, Mamoru KIKUMOTO, Kazuo TANI, Koichi HOSODA, Koji OGAWA
67	15:45-16:00	Development of sampling device and triaxial test device to take samples from fault Tetsuji OKADA, Tomonori TANIGUCHI, Nobuyuki HIRAYAMA, Ryuzou ORITA
22	16:00-16:15	Study on the strength properties of softrock using tri-axial tension test using hollow cylindrical specimen Risa NISHIYAMA, Masashi OOTA, Takaaki SAWADA, Haruhiko UNO, Tetsuji OKADA, Kensei KANAYA
85	16:15-16:30	Heat transfer characteristics of Tago tuff under freeze-thaw environment Nabin Kumar IJAM, Tadashi YAMABE, Rangga SUDISMAN

(2) Poster Presentations

■ Location: 3rd floor in Kobe International Conference Center

■ Core time: January 10, 2017 (Tue.) 15:00~15:45

Presentation number	Title and Authors
2	Assessment of the functions of the impervious plug based on several monitoring results for groundwater recovery experiment Hiroya MATSUI, Shinichiro MIKAKE, Koki IKEDA, Sadao SASAKI
6	Subcritical crack growth in rock in water with high calcium ion concentration Tomoki HARUI, Yoshitaka NARA
8	Fracture sealing in rock by precipitation of calcium compound Yusaku HAMADA, Yoshitaka NARA, Masanori KOHNO, Kazutoshi SHIBUYA
13	Analysis of slope displacement during the snowmelt season using differential interferometric SAR Fujio TSUNODA, Yoshinori YAJIMA, Toshiyuki KURAHASHI, Yoshihiko ITO
21	A laboratory test considering time-dependent rock degrading Hiroumi NIWA, Hideyuki MURAYAMA, Kenji OKAZAKI, Syusaku YAMAZAKI, Toshiyuki KURAHASHI, Yoshihiko ITO
32	Numerical study of spalling test of rock with 3-D DFPA method Erina NIHEI, Daisuke FUKUDA, Sang-Ho CHO, Se-Wook OH, Jun-ichi KODAMA, Yoshiaki FUJII
42	Damage situation of masonry structures caused by the 2016 Kumamoto earthquake: stone walls in Kumamoto castle Tomofumi KOYAMA, Mamoru KIKUMOTO, Ryota HASHIMOTO, Ryuto KUWAJIMA
44	The characteristics of damage to rock engineering structures induced by the 2016 Kumamoto earthquakes Ömer AYDAN, Jun TOMIYAMA, Hitoshi MATSUBARA, Naohiko TOKASHIKI, Naoki IWATA

48	Fundamental study on modelling rock-like materials through 3D printing Kenichiro SUZUKI, Koichi OKUZAWA, Kenichi NAKAOKA, Takato TAKEMURA
52	Induced oxidation effects on hydraulic conductivity of fractured lignite AKM Badrul ALAM, Noritaka ARAMAKI, Shuji TAMAMURA, Akio UENO, Takuma MURAKAMI, Daisuke FUKUDA, Katsuhiko KANEKO
57	Influence of moisture content on tri-axial creep property of diatomaceous earth Takashi TAKEHARA
80	Development of the invert displacement gauge for monitoring heaving of roadbed Satoshi ITO, Hideo KINASHI, Daisuke FUJIOKA, Koji HATA, Koji TSUJIMURA
110	Development of a hard rock tunnel excavator, TM-100 –an excavator for a tunnel with a non-limited profile in hard rocks with their unconfined compressive strength over 100 MPa- Masanori WAKAYAMA, Masataka UCHIDA, Motoki AMANO, Takuya TANI
122	Characteristics of fractures induced by hydraulic fracturing in shale Yuya MORISHIGE, Syota WATANABE, Yuto TOMONAGA, Youqing CHEN, Tsuyoshi ISHIDA
127	Numerical analysis of the grout injection conducted in the ventilation shaft of the Horonobe underground research laboratory Hiroyoshi NAKASHIMA, Tomofumi KOYAMA, Keisuke TATSUTA, Tatsuo KATAYAMA, Kazuhei AOYAGI