

# Third International Symposium on Coupled Phenomena in Environmental Geotechnics

## CPEG2020+1 Online Program (ver.01, September 6)

UTC -6 (e.g. Denver)	UTC +2 (e.g. Paris, Rome)	Time Kyoto, Japan	October 20, 2021 (Wednesday)		
18:00-18:15	2:00-2:15	9:00-9:15	<b>Opening Ceremony</b> Opening address: Prof. Takeshi Katsumi (Chair of CPEG2020) Prof. Mamoru Mimura (President of JGS) Prof. Abdelmalek Bouazza (Chair of ISSMGE-TC215) etc.		
18:15-19:00	2:15-3:00	9:15-10:00	Prof. Craig H. Benson (University of Virginia, USA) Stress-induced pore water pressures in the unsaturated zone beneath a composite-lined landfill		
19:00-19:15	3:00-3:15	10:00-10:15	Break		
19:15-20:45	3:15-4:45	10:15-11:45	<i>Bentonite-based barriers (1)</i> (Session 01—Online Room 1)	<i>Environmental monitoring and risk assessment (1)</i> (Session 02—Online Room 2)	<i>Soil-water-chemical interactions</i> (Session 03—Online Room 3)
20:45-21:00	4:45-5:00	11:45-12:00	Break		
21:00-22:00	5:00-6:15	12:00-13:15	<i>Bentonite-based barriers (2)</i> (Session 04—Online Room 1)	<i>Geotechnical and environmental characterisation (1)</i> (Session 05—Online Room 2)	
3:00-3:45	11:00-11:45	18:00-18:45	Prof. Toru Inui (Osaka University, Japan) Acid buffering and arsenic immobilization performances of MgO based agent for excavated acid rock		
3:45-4:00	11:45-12:00	18:45-19:00	Break		
4:00-5:30	12:00-13:30	19:00-20:30	<i>Waste landfills (1)</i> (Session 06—Online Room 1)	<i>Environmental monitoring and risk assessment (2)</i> (Session 07—Online Room 2)	<i>Remediation and contaminant characterisation (1)</i> (Session 08—Online Room 3)
5:30-5:45	13:30-13:45	20:30-20:45	Break		
5:45-7:00	13:45-15:00	20:45-22:00	<i>Radioactive wastes</i> (Session 09—Online Room 1)	<i>Energy geotechnics</i> (Session 10—Online Room 2)	

UTC -6 (e.g. Denver)	UTC +2 (e.g. Paris, Rome)	Time Kyoto, Japan	<b>October 21, 2021 (Thursday)</b>	
18:00-18:45	2:00-2:45	9:00-9:45	<b>Dr. Dimitrios Zekkos (UC Berkeley, USA)</b> Coupling the biochemical, physical and mechanical processes during biodegradation of municipal solid waste through large-size experiments and modeling	
18:45-19:15	2:45-3:15	9:45-10:15	<b>Prof. Abdelmalek Bouazza</b> Geosynthetic clay liners: Pushing the application boundaries, but how far?	
19:15-19:30	3:15-3:30	10:15-10:30	Break	
19:30-20:45	3:30-4:45	10:30-11:45	<i>Waste landfills (2)</i> (Session 11—Online Room 1)	<i>Geotechnical and environmental characterisation (2)</i> (Session 12—Online Room 2)
20:45-21:00	4:45-5:00	11:45-12:00	Break	
21:00-22:15	5:00-6:15	12:00-13:15	<i>Remediation and contaminant characterisation (2)</i> (Session 13—Online Room 1)	<i>Geotechnical and environmental characterisation (3)</i> (Session 14—Online Room 2)
5:00-5:45	13:00-13:45	20:00-20:45	<b>Prof. Catherine Mulligan (Concordia University, Canada)</b> Heavy metal pollution in surface sediments from a shallow harbour in Quebec, Canada	
5:45-6:00	13:45-14:00	20:45-21:00	Break	
6:00-7:30	14:00-15:30	21:00-22:30	<i>Special session on column testing</i>  <b>Dr. Tetsuo Yasutaka (National Institute of Advanced Industrial Science and Technology—AIST, Japan)</b> The upgrade international standard of up flow-percolation test for evaluation the leaching characteristics of soil and soil like materials  <b>Prof. Charles D. Shackelford (Colorado State University, USA)</b> Fundamental considerations for column testing of engineered, clay-based barriers	
7:30-8:00	15:45-16:00	22:30-23:00	<b>Closing Ceremony</b>	

Paper ID	Title	Authors	Session No. & Time
CPEG2020-139	Stress-induced pore water pressures in the vadose zone beneath a composite-lined landfill	<b>Craig H. Benson</b> , Jiannan Chen and Kuo Tian	Keynote Lecture 1, Wednesday, October 20, 2021, 9:15-10:00 (JST)
CPEG2020-091	Acid buffering and arsenic immobilization performances of MgO based agent for excavated acid rock	<b>Toru Inui</b> , Tsutomu Takata and Hiroto Mori	Keynote Lecture 2, Wednesday, October 20, 2021, 18:00-18:45 (JST)
CPEG2020-111	Coupling the biochemical, physical and mechanical processes during biodegradation of municipal solid waste through large-size experiments and modeling	<b>Dimitrios Zekkos</b>	Keynote Lecture 3, Thursday, October 21, 2021, 9:00-9:45 (JST)
CPEG2020-101	Heavy metal pollution in surface sediments from a shallow harbour in Quebec, Canada	<b>Catherine Mulligan</b> and Masoumeh Javid	Keynote Lecture 4, Thursday, October 21, 2021, 20:00-20:45 (JST)
CPEG2020-025	Comparison of coupled solute flux through sodium- and enhanced-bentonite barriers leveraging two decades of experimental data	<b>Kristin M. Sample-Lord</b> , Gretchen Bohnhoff, Joseph Scalia and Michael Malusis	Session 01, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-068	Shear characteristics of compacted bentonites immersed in KOH and KOH-NaOH solutions	<b>Yasutaka Watanabe</b> and Shingo Yokoyama	Session 01, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-030	Observation of autogenous sealing of bentonite clay with X-ray computerized tomography	<b>Yifei Gao</b> and Abbas El-Zein	Session 01, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-002	Comparison of unconfined compressive strength on heated bentonite-sand mixture by chemical exposure	<b>Tomoyoshi Nishimura</b> and Junichi Koseki	Session 01, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-121	Visualization of microstructure and measurement of mass transport parameters for granulated bentonite mixtures	<b>Mazhar Nazir</b> , Akihiro Matsuno, Takeshi Saito, Ken Kawamoto and Toshihiro Sakaki	Session 01, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-041	Influence of lead and copper on behaviour of compacted bentonite	<b>Saswati Ray</b> , Anil K. Mishra and Ajay S. Kalamdhad	Session 01, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-127	A preliminary study of environmental monitoring using embedded sensors in the soil	<b>Kazuhiro Mukai</b> , Yunshun Zhong, Peter Hubbard and Kenichi Soga	Session 02, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-053	Effect of coupling hydro-mechanical-biodegradation process on the slope stability of a bioreactor landfill	<b>Shi-Jin Feng</b> , Wen-Ding Fu, Qi-Teng Zheng and Shi-Feng Lu	Session 02, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-004	The fate and transfer of post-fire soil and aquifers contamination: A review	<b>Zahra Ghahremani</b> , Pierrette Iradukunda and Arvin Farid	Session 02, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-119	Applicability of silty material brought by black tsunami to estimation of inundation area	<b>Kosuke Nakamura</b> and Takeshi Komai	Session 02, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-122	Hydrological and mechanical effects of vegetation on slope stability	<b>Hongwei Liu</b>	Session 02, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-125	Examining the effects of layering on the seismic behavior of tailings dams using dynamic centrifuge tests	<b>Zitao Zhang</b> , Jing Hu, Xuedong Zhang, Leiji Qi and Jianhui Liang	Session 02, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-138	Modelling of effects of water vapor and temperature gradient on moisture and gas transfer in unsaturated landfill cover	<b>Liang Tong Zhan</b> , Song Feng, Tao Wu and Ping Chen	Session 03, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-006	Capturing hysteresis in the suction-saturation relationship of a three-phase fluids system (Air-NAPL-Water) in porous media	<b>Lohit Krishna Puligadda</b> and Mamoru Kikumoto	Session 03, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-088	Coupled hydro-mechanical influence on hydraulic conductivity of well-graded sandy gravel	<b>Chenghao Chen</b> , Shiang Mei, Yi Tang and Shengshui Chen	Session 03, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-124	Characterization of hydrophobicity for artificially hydrophobized autoclave aerated concrete grains	<b>Zafar Muhammad Junaid</b> , Akihiro Matsuno, Takeshi Saito, Huyen Thi-Thanh Dang, Pham Thanh Huyen and Ken Kawamoto	Session 03, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-087	Characterizing water seepage damage in the chest-abdomen area of the Leshan Giant Buddha	<b>Sun Bo</b> , Zhang Peng, Shen Xiwang and Liu Yuyuan	Session 03, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-109	Probabilistic analysis of contaminant transport in fractured sedimentary rocks	<b>Geetha Manjari K.</b> and Sivakumar Babu G. L.	Session 03, Wednesday, October 20, 2021, 10:15-11:45 (JST)
CPEG2020-023	Assessing the influence of chemico-osmosis on solute transport in bentonite membranes based on combined phenomenological and physical modeling	<b>Michael Malusis</b> , Andrea Dominijanni, Joseph Scalia, Nicolò Guarena, Kristin M. Sample-Lord, Gretchen Bohnhoff, Charles Shackelford and Mario Manassero	Session 04, Wednesday, October 20, 2021, 12:00-13:15 (JST)
CPEG2020-033	Effect of polymer elution on interface shear strength between bentonite-polymer composite geosynthetic clay liners and geomembranes	<b>Jiannan Chen</b> , Sarah A. Gustitus and Craig H. Benson	Session 04, Wednesday, October 20, 2021, 12:00-13:15 (JST)

CPEG2020-063	Membrane behavior of an exhumed geosynthetic clay liner	<b>Nazli Yesiller</b> , James L. Hanson, Kristin M. Sample-Lord, Shan Tong	Session 04, Wednesday, October 20, 2021, 12:00-13:15 (JST)
CPEG2020-079	Temperature effect on adsorption and diffusion of ammonium through geosynthetic clay liner and in-situ clayey soil in Hanoi, Vietnam	<b>Thi Hoai Ta</b> , Toshifumi Mukunoki and Trong Nhuan Mai	Session 04, Wednesday, October 20, 2021, 12:00-13:15 (JST)
CPEG2020-026	Challenges and solutions in using geosynthetic clay liners exposed to thermal desiccation risks	<b>Bowel Yu</b> and Abbas El-Zein	Session 04, Wednesday, October 20, 2021, 12:00-13:15 (JST)
CPEG2020-115	Effect of compaction degree on shear strength behavior of municipal solid waste incinerator bottom ash in Vietnam	<b>Nguyen Chau Lan</b> , Nguyen Anh Tuan and Nguyen Hai Ha	Session 05, Wednesday, October 20, 2021, 12:00-13:15 (JST)
CPEG2020-116	Effects of fines content and maximum particle size on mechanical properties and saturated hydraulic conductivity of recycled concrete aggregates for unbound roadbed materials in Vietnam	<b>Hong Nam Thai</b> , Akira Kato, Hoang Giang Nguyen, Tien Dung Nguyen, Ton Kien Tong, Van Tuan Nguyen, Taro Uchimura, Takeshi Maki and Ken Kawamoto	Session 05, Wednesday, October 20, 2021, 12:00-13:15 (JST)
CPEG2020-064	Beneficial use of Savannah River dredged material in large-scale geotechnical applications	<b>Hejintao Huang</b> , Susan E. Burns and Kimberly E. Kurtis	Session 05, Wednesday, October 20, 2021, 12:00-13:15 (JST)
CPEG2020-032	Mechanical properties of geomaterials made of steelmaking slag mixed with fibrous wood chips or chemical fibers	<b>Akihiro Oshino</b> , Yoshiaki Kikuchi, Shohei Noda, Tomotaka Yoshikawa, Taiki Sugihara and Tomotaka Watanabe	Session 05, Wednesday, October 20, 2021, 12:00-13:15 (JST)
CPEG2020-107	Numerical analysis of dynamic loads in pavement structures based on the subgrade material of MSWI bottom ash	<b>Ji Chen</b> , Jianxin Yang, Yanhong Chen, Bin Li, Yucheng Huang and Qiang Tang	Session 05, Wednesday, October 20, 2021, 12:00-13:15 (JST)
CPEG2020-027	Geotechnical and environmental aspects of landfill reclamation: A case study of an old municipal solid waste landfill in Poland	<b>Eugeniusz Koda</b> , Anna Podlasek, Piotr Osirski, Anna Markiewicz and Magdalena Daria Vaverková	Session 06, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-145	Geotechnical characterisation for landfill disposal of phosphoric acid production residues	<b>Andrea Dominijanni</b> , Paolo Fagiani, Nicolò Guarena, Camilla Lanari, Mario Manassero, Alfonso Modica and Manlio Rossini	Session 06, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-016	Phase relations and physical indicators of municipal waste from old landfills in Serbia	<b>Dragoslav Rakic</b> , Irena Basarickodinovic, Jovana Jankovic and Tina Djuric	Session 06, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-012	Relative contribution of chemico-osmosis and electro-osmosis to the experimental determination of the reflection coefficient in semipermeable clay soils	<b>Nicolò Guarena</b> , Andrea Dominijanni and Mario Manassero	Session 06, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-047	Assessment of shear strength for liner cover layers at different environmental exposures	<b>Muawia Dafalla</b> , Abdullah Shaker, Abdullah Almajed and Lemboye Kehinde	Session 06, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-092	PVD-assisted consolidation of dredged sediments in a CDF: Design of the test field	<b>Mirko Felici</b> , Evelina Fratolocchi, Marta Di Sante, Federica Pasqualini and Erio Pasqualini	Session 06, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-028	Risk assessment procedure for the performance-based design of landfill lining systems and cutoff walls	<b>Andrea Dominijanni</b> , Nicolò Guarena and Mario Manassero	Session 07, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-051	Estimation of geotechnical properties of municipal solid waste by field methods	<b>Vadim G. Ofrikhter</b> , Ian V. Ofrikhter, Mikhail A. Bezgodov	Session 07, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-150	Thermo-osmosis in silica nanochannels	<b>Weiqiang Chen</b> , Majid Sedighi and Andrey Jivkov	Session 07, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-034	Development of nondestructive techniques for preliminary soil foundations geotechnical assessment	<b>Vadim.V. Antipov</b> and Vadim.G. Ofrikhter	Session 07, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-066	Sustainable use of recycled concrete aggregates and waste rubber shreds in drainage layer of landfills	<b>Sunil B. Malegole</b> and Prateek Pranab	Session 07, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-130	Characterization of arsenic contaminated groundwater in Hanoi City and a treatment option by using recycled autoclaved aerated concrete (AAC)	<b>Son Hoai Tran</b> , Nga Thi Viet Tran, Satoh Hiroyasu and Ken Kawamoto	Session 07, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-022	Optimal design of ZVI /lapillus mixtures for nickel removal in permeable reactive barriers	<b>Stefania Bilardi</b> , Paolo S. Calabrò and Nicola Moraci	Session 08, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-017	Coupling simulation of microbial growth and MICP phenomena based on reaction-diffusion system	<b>Ibuki Nishimura</b> and Hitoshi Matsubara	Session 08, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-147	Cyclic behavior of bio-cemented soils using relatively large grains	<b>Tong Yu</b> , Hanene Souli, Yoan Pechaud and Jean-Marie Fleureau	Session 08, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-049	Compatibility of landfill leachate with compacted biocemented lateritic soil through microbial induced calcite precipitation technique	<b>Kolawole J. Osinubi</b> , Emmanuel W. Gadzama, Adrian O. Eberemu and Thomas S. Ijimdiya	Session 08, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-054	A study on reduction and transport of Cr(VI) in two-dimensional soils with root systems	<b>Zentaro Furukawa</b> , Kiyonobu Kasama, Yuichi Yahiro and Tomoki Morimoto	Session 08, Wednesday, October 20, 2021, 19:00-20:30 (JST)

CPEG2020-038	Diffusion study of municipal solid waste contaminants in compacted lateritic soil treated with <i>Bacillus Coagulans</i>	<b>Paul Yohanna</b> , Thomas S. Ijimdiya, Adrian O. Eberemu and Kolawole J. Osinubi	Session 08, Wednesday, October 20, 2021, 19:00-20:30 (JST)
CPEG2020-021	Reversibility of micro and macrostructure in compacted bentonite under chemo-mechanical couplings	<b>Kunlin Ruan</b> , De'an Sun, Xianlei Fu, Hailong Wang, Hideo Komine and Daichi Ito	Session 09, Wednesday, October 20, 2021, 20:45-22:00 (JST)
CPEG2020-045	Multi-physics simulation for predicting the permeability change of single rock fracture due to geochemical effect depending on pH condition	<b>Sho Ogata</b> , Hideaki Yasuhara, Naoki Kinoshita, Takeru Kumagai, Toru Inui, Seiki Mishima and Kiyoshi Kishida	Session 09, Wednesday, October 20, 2021, 20:45-22:00 (JST)
CPEG2020-095	Peridynamic modelling of coupled hydro-chemical processes in clay erosion	<b>Huaxing Yan</b> , Majid Sedighi and Andrey Jivkov	Session 09, Wednesday, October 20, 2021, 20:45-22:00 (JST)
CPEG2020-031	Alkaline degradation of GMZ bentonite as HLW barrier in China	<b>Yanmei Tong</b> and Huyuan Zhang	Session 09, Wednesday, October 20, 2021, 20:45-22:00 (JST)
CPEG2020-148	Analysis of key thermal coupled factors in modelling of bentonite barriers	<b>Abhishek Gupta</b> , Ayman Abed and Wojciech Solowski	Session 09, Wednesday, October 20, 2021, 20:45-22:00 (JST)
CPEG2020-014	Feasibility of total system for ground protection-power generation-construction waste material reusing	<b>Shoji Yokohama</b>	Session 10, Wednesday, October 20, 2021, 20:45-22:00 (JST)
CPEG2020-046	Image analysis of natural gas hydrate-bearing sand during shear with different plane strain shear rate	<b>Qi Wu</b> , Norimasa Yoshimoto, Shintaro Kajiyama and Yukio Nakata	Session 10, Wednesday, October 20, 2021, 20:45-22:00 (JST)
CPEG2020-057	Thermo-hydro-mechanical behavior of an embankment thermal storage	<b>Masrouri Farimah</b> , Mojdeh Lahoori and Sandrine Rosin	Session 10, Wednesday, October 20, 2021, 20:45-22:00 (JST)
CPEG2020-132	Geotechnical characteristics of carbonated incineration bottom ash using exhaust and CO <sub>2</sub> discharged from waste incineration facilities	<b>Takuro Fujikawa</b> , Kenichi Sato, Chikashi Koga, Hirofumi Sakanakura and Hiroshi Kubota	Session 10, Wednesday, October 20, 2021, 20:45-22:00 (JST)
CPEG2020-128	Thermal diffusivity of municipal solid waste based on inverse analysis of in-situ heat extraction test	<b>Leticia M. Nocko</b> , Keaton Botelho, Jeremy W. F. Morris, Ranjiv Gupta and John S. McCartney	Session 11, Thursday, October 21, 2021, 10:30-11:45 (JST)
CPEG2020-114	Multiphysics of seismic analysis and reactive chemical transport analysis for long-term environmental safety evaluation of RC-built hazardous waste landfill	<b>Hiroyuki Ishimori</b> , Kazuto Endo, Tomonori Ishigaki, Kazuo Yamada and Masato Yamada	Session 11, Thursday, October 21, 2021, 10:30-11:45 (JST)
CPEG2020-035	Climate change effects of gases from municipal solid waste landfills	<b>Derek Manheim</b> , Nazli Yesiller and James L. Hanson	Session 11, Thursday, October 21, 2021, 10:30-11:45 (JST)
CPEG2020-133	Construction and demolition waste illegal dumping: Environmental, social and economic impacts assessment for a growing city	<b>Luu Ngoc Cham</b> , Nguyen Lan Huong, Tran Thi Viet Nga, Yugo Isobe, Mikio Kawasaki and Ken Kawamoto	Session 11, Thursday, October 21, 2021, 10:30-11:45 (JST)
CPEG2020-106	Organic pollutants removal by MSWI bottom ash as permeable subgrade material: experimental and numerical studies	<b>Angran Tian</b> , Ruilin Xie, Jianfeng Xu, Bin Li and Qiang Tang	Session 11, Thursday, October 21, 2021, 10:30-11:45 (JST)
CPEG2020-050	A biochemical-thermo-hydro-mechanical coupling of degradable soils	<b>Ke Li</b> , Wenjie Xu and Yunmin Chen	Session 12, Thursday, October 21, 2021, 10:30-11:45 (JST)
CPEG2020-103	Neutralization of bauxite residues by gas purging	<b>Ganaraj Kuntikana</b> , Devendra N. Singh and Nageswar Kapuri	Session 12, Thursday, October 21, 2021, 10:30-11:45 (JST)
CPEG2020-078	Experimental study of the effect of salinity and surfactant on mass transfer characteristics of oxygen micro-nano bubbles	<b>Mei Bai</b> , Zhibin Liu, Jinpeng Zhang, Yanjun Du, Liangliang Lu and Zichao Zhu	Session 12, Thursday, October 21, 2021, 10:30-11:45 (JST)
CPEG2020-120	Development of simple and environmentally friendly soil solidification technique	<b>Takamichi Nakamura</b> , Eri Taniguchi, Daiki Kawamura and Yusuke Sakai	Session 12, Thursday, October 21, 2021, 10:30-11:45 (JST)
CPEG2020-039	A preliminary study of carbonate sand stabilization by bio-stimulation based MICP method	<b>Yijie Wang</b> , Ning-Jun Jiang and Xiaole Han	Session 12, Thursday, October 21, 2021, 10:30-11:45 (JST)
CPEG2020-052	Formation of pyromorphite by hydroxyapatite in soil during lead migration through water-unsaturated soils	<b>Masahiko Katoh</b> and Kazuki Hamada	Session 13, Thursday, October 21, 2021, 12:00-13:15 (JST)
CPEG2020-073	Assessment of heavy metal contaminated agricultural soils affected by mining in Ganzhou China	<b>Liang Wang</b> , Jiawei Wu, Jing Hua, Hao Ding, Haijian Xie, Zhilin Sun and Zhanhong Qiu	Session 13, Thursday, October 21, 2021, 12:00-13:15 (JST)
CPEG2020-149	Behavior of hazardous metal(loid)s release from excavated marine sedimentary rock under atmospheric exposure with drying-wetting cycles	<b>Yuto Yoshida</b> , Hirofumi Sakanakura, Toshihiko Miura and Masahiko Katoh	Session 13, Thursday, October 21, 2021, 12:00-13:15 (JST)
CPEG2020-129	Study of heavy metals transport in the vadose zone of contaminated soil	<b>Prathima B.</b> , Sughosh P. and Sivakumar Babu G. L.	Session 13, Thursday, October 21, 2021, 12:00-13:15 (JST)
CPEG2020-153	Anaerobic batch leaching tests of shale rock grains	<b>Tomohiro Kato</b> , Yusuke Masaki, Lincoln W. Gathuka, Atsushi Takai and Takeshi Katsumi	Session 13, Thursday, October 21, 2021, 12:00-13:15 (JST)

CPEG2020-067	Bio-mediated improvement process in a reinforced soil with waste paper fiber	<b>Hitoshi Matsubara</b>	Session 14, Thursday, October 21, 2021, 12:00-13:15 (JST)
CPEG2020-048	A laboratory investigation of sand stabilization using biochar-enhanced alkali-activated slag	<b>Xiaole Han</b> , Ningjun Jiang and Yi-jie Wang	Session 14, Thursday, October 21, 2021, 12:00-13:15 (JST)
CPEG2020-076	Shear strength-related properties of clayey soil mixed with converter steelmaking slag under overburden pressure for short-time curing	<b>Yuka Kakiyama</b> , Yoshiaki Kikuchi, Shohei Noda, Takamune Yamaguchi, Risa Tomimatsu, Kosuke Nakayama and Tomotaka Yoshikawa	Session 14, Thursday, October 21, 2021, 12:00-13:15 (JST)
CPEG2020-146	Contribution of immobilization material for arsenic immobilization in excavated rock with different particle size	<b>Noriko Manabe</b> and Masahiko Katoh	Session 14, Thursday, October 21, 2021, 12:00-13:15 (JST)
CPEG2020-058	Property of mixture of foam shield tunneling surplus excavation soil and steelmaking slag under water casting	<b>Takamune Yamaguchi</b> , Yuka Kakiyama, Yoshiaki Kikuchi, Shohei Noda, Tomotaka Yoshikawa, Takatoshi Noguchi, Risa Tomimatsu and Kosuke Nakayama	Session 14, Thursday, October 21, 2021, 12:00-13:15 (JST)
CPEG2020-140	The upgrade international standard of up flow-percolation test for evaluation the leaching characteristics of soil and soil like materials	<b>Tetsuo Yasutaka</b> , Ute Kalbe and Hirofumi Sakanakura	Session 15, Thursday, October 21, 2021, 21:00-22:30 (JST)
CPEG2020-024	Fundamental considerations for column testing of engineered, clay-based barriers	<b>Charles D. Shackelford</b>	Session 15, Thursday, October 21, 2021, 21:00-22:30 (JST)
CPEG2020-089	Lysimeter tests for change in leachate quality from the modified removed soil: Interaction between soil and polymer modification agent	<b>Jialin Mo</b> , Kazuto Endo, Arai Hiroyuki, Takuya Miura and Kosuke Nakamura	Session 15, Thursday, October 21, 2021, 21:00-22:30 (JST)
CPEG2020-093	Migration parameters and interaction of saline solutions through cement-bentonite cutoffs	<b>Jonathan Domizi</b> , Mirko Felici and Evelina Fratolocchi	Session 15, Thursday, October 21, 2021, 21:00-22:30 (JST)
CPEG2020-154	Geosynthetic clay liners: Pushing the application boundaries, but how far?	<b>Abdelmalek Bouazza</b>	Special Lecture, Thursday, October 21, 2021, 9:45-10:15 (JST)