

TABLE OF CONTENTS

00001 Preface

Rafaela Cardoso, Cristina Jommi and Enrique Romero

Field studies and engineering applications

01001 Effect of hydraulic parameters on the computed serviceability of infrastructure slopes
Aikaterini Tsiampousi, Lidija Zdravkovic and David M Potts

01002 The TERRE project: Towards low-carbon geotechnical engineering by exploiting suction as natural untapped soil reinforcement
Alessandro Tarantino, Grainne El Mountassir, Simon Wheeler, Domenico Gallipoli, Giacomo Russo, Charles Augarde, Gianfranco Urciuoli, Marianna Pirone, Alexia Stokes, Jan Willem van de Kuilen, Wolfgang Gard, Thierry Fourcaud, Enrique Romero, Angel Priegue, Colin C Smith, Pyrène Larrey-Lassalle, Patrick Becker and Alessio Ferrari

01003 Probabilistic analysis of flood embankment stability: the case study of the Adige River embankment in Italy
Alessia Amabile, Fabio De Polo and Alessandro Tarantino

01004 A numerical study on the effect of salinity on the stability of an unsaturated railway embankment under rainfall
Ali Kolahdooz, Hamed Sadeghi and Mohammad Mahdi Ahmadi

01005 Centrifuge tests to evaluate the effect of depth of water table on seismic response of shallow foundations on silty sands
Amin Borghei, Majid Ghayoomi and Matthew Turner

01006 Numerical study on bearing capacity of a pile group next to a slope in unsaturated soils
Amirreza Pourfatollah, Ali Pirjalili and Aliakbar Golshani

01007 Volume change behaviour of root-permeated soils under partially saturated conditions
Anil Yildiz, Frank Graf and Sarah M. Springman

4th European Conference on Unsaturated Soils E-UNSAT 2020

19 - 21 October 2020
ONLINE CONFERENCE



- 01008 Monitoring of thermo-hydrological behaviour in Green Infrastructure
Anil Yildiz, Ross Stirling and Stephanie Glendinning
- 01009 Analysis of massive sulphate attack to cement-treated compacted soils
Anna Ramon Tarragona and Eduardo Alonso
- 01010 Behavior of unsaturated pelitic soil in a railway context
Bilal Yoka Khail, Pierre Breul and Mathilde Morvan
- 01011 Shear strength and retention models of a partially saturated riverbank silty soil
Carmine Gerardo Gragnano, Mariagiovanna Moscariello, Sabatino Cuomo and Guido Gottardi
- 01012 Calibration of a simple 1D model for the hydraulic response of regional dykes in The Netherlands
Ching-Yu Chao, Maarten Bakker and Cristina Jommi
- 01013 Development of a Thornthwaite Moisture Index Map for Trinidad and Tobago
Damian Alexander, Derek Gay and Kyung Park
- 01014 Stabilization of soil erosion using vetiver (*Chrysopogon zizanioides* L.) in slopes: a field case study of selected grounds at Guatemala
Eduardo Garzón Garzón, Flor M. González-Miranda, Juan Reca and Pedro José Sánchez-Soto
- 01015 Stability Analysis of Unsupported Vertical Cuts in the Vadose Zone using 2D and 3D Numerical Methods
Gregory Brennan, Won Taek Oh and Othman Nasir
- 01016 Leachate production estimation for a landfill in south of Brazil using Hydrus-1D
Jonathan Tenório and Débora Hianca Da Rosa Waisczik
- 01017 Field and laboratory investigation of rainfall-triggered slope failure in unsaturated loess soils, New Zealand
Katherine Yates, Adrian Russell and Clark Fenton
- 01018 Rainfall infiltration simulation on embankment containing soluble material
Katsuyuki Kawai, Kaito Arinishi, Satsuki Kataoka and Koji Nakashima
- 01019 Water retention and characteristic curves representing tropical clay soils from Africa
Khalid Alhaj Abdalla, Giovanna Biscontin, Mohamed Elshafie and Ashraf Osman
- 01020 Subsidence in cultivated peatlands, is it due to shrinkage, consolidation or oxidation?
Leon van Paassen, Nor Hazwani Md Zain and Cristina Jommi
- 01021 Physical modelling of piles under lateral loading in unsaturated soils
Leonardo Maria Lalicata, Giada Rotisciani, Augusto Desideri, Francesca Casini and Luc Thorel

4th European Conference on Unsaturated Soils
E-UNSAT 2020

19 - 21 October 2020
ONLINE CONFERENCE



- 01022 Effect of Extreme Rainfall Intensity On Matric Suction and Ground Movement
Mastura Azmi, Muhammad Hazwan Zaki, Muhd Harris Ramli and Siti Aimi Nadia Mohd Yusoff
- 01023 Long-term suction measurements in Greece & Cyprus. A continuous update.
Michail Bardanis and Dimitrios Loukidis
- 01024 Fully-coupled analysis for the behaviour of flexible retaining structures under seismic conditions
Nicola Pontani, Kateryna Oliynyk and Claudio Tamagnini
- 01025 Hydro-mechanical modelling of rammed earth structures
Parul Chauhan, Elio Moussa, Noémie Prime, Olivier Plé and Simon Wheeler
- 01026 Unsaturated Seepage Analysis at Guayabo´s Archaeological Site, Costa Rica
Rafael Baltodano-Goulding
- 01027 Numerical study of the application of capillary barrier systems for prevention of rainfall-induced slope instabilities
Riccardo Scarfone, Simon Wheeler and Colin Smith
- 01028 Coupled hydro-mechanical modelling of a 1995 Hong Kong landslide
Sabatino Cuomo, Angela Di Perna and Mario Martinelli
- 01029 Field monitoring of soil-moisture to understand the hydrological response of a road-cut slope
Samprada Pradhan, David G. Toll, Nick J. Rosser and Matthew J. Brain
- 01030 Performance of a driven battered mini-pile group against expansive soil induced ground movement
Shirin Aminzadeh Bostani Taleshani, Robert Evans, Emad Gad and Mahdi Miri Disfani
- 01031 Monitoring of earthen long linear embankments by geophysical tools integrated with geotechnical probes
Stefano Utili
- 01032 Infiltration behaviour of dike covers made of dredged material on the Rostock Research dike
Tim Jurisch, Stefan Cantre and Fokke Saathoff
- 01033 Hydro-mechanical behaviour of a sandy silt from a river embankment
Vincenzo Butticè, Alessio Ferrari, Carmine Gerardo Gragnano and Guido Gottardi

4th European Conference on Unsaturated Soils E-UNSAT 2020

19 - 21 October 2020
ONLINE CONFERENCE



Theoretical and numerical models

- 02001 A single-stress model for the prediction of yielding of unsaturated cemented soils under isotropic loads
Agostino Walter Bruno, Domenico Gallipoli, Mohamed Rouainia and Marti Lloret-Cabot
- 02002 Exponential Functions for Modelling Hysteresis of Soil-Water Characteristic Curves
Alfredo Satyanaga, Jong Kim, Sung-Woo Moon and Martin Wijaya
- 02003 M4EKR, Multiphysics for ElectroKinetic Remediation of Polluted Soils
Angel Yustres, Rubén López-Vizcaíno, Virginia Cabrera and Vicente Navarro
- 02004 An extended generalized effective stress for active clays
Angelica Tuttolomondo, Alessio Ferrari and Lyesse Laloui
- 02005 Modelling of unsaturated gas flow by Thebes code: Validation tests
Ayman Abed and Wojciech Sołowski
- 02006 Modelling the hydromechanical behaviour of expansive granular mixtures upon hydration
Benjamin Darde, Anh Minh Tang, Jean-Michel Pereira, Jean-Noël Roux, Patrick Dangla, Jean Talandier and Minh Ngoc Vu
- 02007 Bounding surface constitutive model for unsaturated soils considering microscopic pore structure and bonding effect
Bowen Han, Guoqing Cai, Jian Li, Chenggang Zhao and Hao Li
- 02008 A micromechanical analysis of a drying sand castle using DEM
Carlos Pereira, João Ribas Maranhã and Rafaela Cardoso
- 02009 Modeling multiphase flow with a hybrid model based on Pore-network and lattice Boltzmann method
Eduard Puig Montellà, Chao Yuan, Bruno Chareyre and Antonio Gens
- 02010 Determination of soil water retention curve: an artificial intelligence-based approach
Ehsan Nikooee, Amir Mohammad Nouri, Alireza Ghadamgahi Khorassani, Rasoul Mirghafari and Ghassem Habibgahi
- 02011 A water retention curve model for compacted clays subjected to salinization and desalinization processes
Gabriele Della Vecchia, Giulia Scelsi and Guido Musso
- 02012 Numerical modelling of the response of an unsaturated silty soil under wetting and gravitational loading processes
Giada Maria Rotisciani, Leonardo Lalicata, Augusto Desideri and Francesca Casini

4th European Conference on Unsaturated Soils
E-UNSAT 2020

19 - 21 October 2020
ONLINE CONFERENCE



- 02013 Overview and conceptual constitutive framework for pellet-based buffer materials
Giulia Marianna Ghiadistri, Lidija Zdravković, David M. Potts and Aikaterini Tsiampousi
- 02014 A deformation-dependent soil-water characteristic surface model considering hysteresis
Guoqing Cai, Tianchi Wu, Hao Li, Chenggang Zhao, Jingjing Tian and Jian Li
- 02015 Theoretical modeling of retention curve
Jacques Monnet, Boutonnier Luc, Saïd Taïbi, Dino Mahmutovic and Denis Branque
- 02016 A plastic volumetric strain dependent soil water retention curve
Jayantha Kodikara and Chathurika Jayasundara
- 02017 A frost heave model of unsaturated coarse-grained soil considering vapour transfer
Jianlong Liu, Jidong Teng, Sheng Zhang and Daichao Sheng
- 02018 Development of an unfrozen water retention curve for capturing soil density and specific surface effects
Jiwen Zhang, Qingyi Mu, Hongjian Liao and Jie Cao
- 02019 The mechanical behavior of an expansive soil due to long-term seasonal rainfalls
Kai Li, Liang Kong, Hossein Nowamooz and Cyrille Chazallon
- 02020 Calibration of a generalized plasticity model for compacted silty sand under constant-suction shearing tests
Marcos García-García, Ujwalkumar Patil, Diego Manzanal, Laureano Hoyos, Anand Puppala and Manuel Pastor
- 02021 Modelling of simple shear tests on volcanic unsaturated sands
Mariagiovanna Moscariello, Yanni Chen, Sabatino Cuomo and Giuseppe Buscarnera
- 02022 Application of single-board computers in experimental research on unsaturated soils
Marius Milatz
- 02023 Swelling Curve in Terms of Effective Stress for Expansive Clays
Rafael Baltodano-Goulding
- 02024 Evaluation of prediction models applied to the soil-water characteristic curve of ideal materials
Roberto Alves, Gilson Gitirana and Sai Vanapalli
- 02025 Numerical investigation on water exchange of shale samples
Sara Incollingo, Alessio Ferrari and Guido Musso
- 02026 A semi-empirical model to predict excess pore pressure generation in partially saturated sand
Sayedmasoud Mousavi and Majid Ghayoomi

4th European Conference on Unsaturated Soils E-UNSAT 2020

19 - 21 October 2020
ONLINE CONFERENCE



02027 Modelling free gas overpressure in peat layers
Stefano Muraro and Cristina Jommi

02028 Evaluation of direct shear strength of compacted bentonite having pore-water pressure
Tomoyoshi Nishimura and Masaaki Fukaya

02029 Modelling evaporation processes of cement-bentonite mixtures
Vincenzo Sergio Vespo, Gabriele Della Vecchia and Guido Musso

02030 Water-entry pressure in water repellent soils: a review
Xin Xing and Sérgio Lourenço

Experimental evidence and techniques

03001 Tensile strength of a vegetated and partially saturated soil
Alessandro Fraccica, Enrique Romero, Thierry Fourcaud, Mercedes Sondon and Luis Gandarillas

03002 Very-small to large strain dynamic behaviour of unsaturated sand in a wide range of suction
Ali Akbar Karimzadeh and Anthony Kwan Leung

03003 Effect of stress state on the water retention curve of pyroclastic soil
Ana Sofia Dias, Abhijith Kamath, Marianna Pirone and Gianfranco Urciuoli

03004 Effect of Coal on Mine Tailings' Water Permeability and Water Retention
Andrew Vidler, Stephen Fityus and Olivier Buzzi

03005 The influence of rates of drying and wetting on measurements of soil water retention curves
Arash Azizi, Ashutosh Kumar and David Geoffrey Toll

03006 Expansive Clay Cracking Behavior through Digital Image Correlation
Arthur Gomes Dantas De Araújo, Nayara Torres Belfort, Felipe Araujo Silva Barbosa, Thalita Cristina Rodrigues Silva, Silvio Romero De Melo Ferreira and Leonardo José Do Nascimento Guimarães

03007 Evaluating the Maximum Shear Modulus (G_0) for different bender-soil coupling energies
Caio de Mattos Azevedo de Paula and Thiago de Souza Carnavale

03008 Changes on diametral compression behaviour of compacted marls due to drying
Carmen Covadonga Garcia-Fernandez, Rafaela Cardoso, Martina Inmaculda Alvarez-Fernandez and Celestino Gonzalez-Nicieza

4th European Conference on Unsaturated Soils
E-UNSAT 2020

19 - 21 October 2020
ONLINE CONFERENCE



- 03009 An Estimation of the Soil Water Characteristics Curves of Trinidad's Expansive Clays
Damian Alexander, Kyung Park and Derek Gay
- 03010 Image-based measurements of degree of saturation
Ferran Parera, Núria M. Pinyol and Eduardo E. Alonso
- 03011 Water retention and transfer properties of a Green roof volcanic substrate
Filip Stanic, Pierre Delage and Yu Jun Cui
- 03012 A new approach of accounting for impedance effects in Gardner's method of determining the hydraulic conductivity of unsaturated soils
Filip Stanic, Pierre Delage and Yu Jun Cui
- 03013 A physical model for the interaction between unsaturated soils and retaining structures
Gianluca Speranza, Alessio Ferrari and Lyesse Laloui
- 03014 Measurement of xylem water pressure using High-Capacity Tensiometer and benchmarking against Pressure Chamber and Thermocouple Psychrometer
Giuseppe Tedeschi, Roberta Dainese and Alessandro Tarantino
- 03015 Monitoring drying and wetting of a cement bentonite mixture with Electrical Resistivity Tomography
Guido Musso, Antonio Zibisco, Renato Maria Cosentini, Paolo Trischitta and Gabriele Della Vecchia
- 03016 Electric Conductivity Probes to Study Change in Degree of Saturation - Bench Top Laboratory Tests
Hadi Kazemiroodsari, Mishac K Yegjian, Akram Alshawabkeh and Seda Gokyer
- 03017 Capillary Rise Determination Using Simplified Image Analysis Method
Harris Ramli, Lee Zheng Xian, Mastura Azmi and Fauziah Ahmad
- 03018 Cyclic mechanical loading of silty clay soils
Henok Hailemariam and Frank Wuttke
- 03019 Preliminary study on the contribution of osmotic effects for the electrical resistivity of sands
Inês Borges, Vikas Gingine and Rafaela Cardoso
- 03020 Developing a high capacity axis translation apparatus for gas shale testing
Jinwoo Kim, Alessio Ferrari, Russell Ewy and Lyesse Laloui
- 03021 Experimental and numerical analysis of soil desiccating cracks in compacted and non-compacted specimens
Josbel Cordero, Abdallah Najdi, David Encalada, Pere C. Prat and Alberto Ledesma

4th European Conference on Unsaturated Soils
E-UNSAT 2020

19 - 21 October 2020
ONLINE CONFERENCE



- 03022 Determination of permeability and shear strength properties of unsaturated residual soil from flysch rock mass
Josip Peranić, Mariagiovanna Moscariello, Sabatino Cuomo and Željko Arbanas
- 03023 Failure mode transitions of unconfined granular media from dry, to unsaturated, to “quasi-fully” saturated states
Katherine Winters, Woodman Berry, Greg Siemens and Oliver-Denzil Taylor
- 03024 Unsaturated Shear Strength Parameters of Compacted Clayey Soil via Suction-controlled Ring Shear Testing
Laureano R. Hoyos, Jairo E. Yepes and Anand J. Puppala
- 03025 Wetting-induced collapse behaviour of a natural and vegetated coarse pyroclastic soil
Leonardo Cascini, Vittoria Capobianco, Sabatino Cuomo and Vito Foresta
- 03026 Retention behaviour of compacted and reconstituted scaly clays
Marco Rosone and Alessio Ferrari
- 03027 Comparison between Soil-Water Characteristic Curves based on filter paper method and grain-size distribution/volume-mass prediction: An evaluation of input data stemmed from hydrometer and Cilas grain-size analyser.
Marcos Felipe da Silva André and Thiago de Souza Carnavale
- 03028 A comparative assessment of chemical stabilisers including waste materials, for the treatment of swelling-shrinking soils
Maria Mavroulidou, Christopher Gray, Fortunate Gumbochuma and Michael Gunn
- 03029 Modeling Unsaturated Soil Response Beyond Residual Suction State via Vapor-Pressure Controlled Triaxial Testing
Mathilde Morvan, Ujwalkumar Patil, Laureano Hoyos, Anand Puppala and Surya S.C. Congress
- 03030 Laboratory testing of seepage in concrete
Miklós Pap, András Mahler and Salem Georges Nehme
- 03031 Analysis of the suction evolution during direct shear test in a silty sand soil
Omar Al-Emami, Gabriela Medero, Fernando Marinho and Melis Sutman
- 03032 Preliminary investigation on the water retention behaviour of cement bentonite mixtures
Paolo Trischitta, Renato Maria Cosentini, Gabriele Della Vecchia and Guido Musso
- 03033 An experimental study of the behaviour of two rockfills accounting for the effects of degree of saturation
Roberta Ventini, Alessandro Flora, Stefania Lirer, Claudio Mancuso and Antonio Cammarota

4th European Conference on Unsaturated Soils E-UNSAT 2020

19 - 21 October 2020
ONLINE CONFERENCE



03034 Characterization of Sand and Zeolite Stabilized Expansive Soil as Landfill Liner Material under Environmental and Climatic Effects
Şerife Öncü and Huriye Bilsel

03035 Effect of external hydraulic head on swelling of unsaturated clay
Shay Nachum, Mark Talesnick and Sam Frydman

03036 Frost heave and thaw settlement of initially saturated-slurried and compacted-saturated materials
Snehasis Tripathy, Osama Mahdi Al-Hussaini, Peter John Cleall, Stephen William Rees and Han-Lin Wang

03037 Cyclic behavior of an unsaturated silty soil subjected to hydro- mechanics damages
Tomoyoshi Nishimura

03038 Yielding of partially saturated soils from saturated to dry state
Vincenzo Butticè, Alessio Ferrari and Marco Rosone

03039 Hydrophobisation of clays and nano silica for ground engineering
Yunesh Saulick and Sérgio Lourenço

03040 Effect of wetting and drying on menisci structures in hydrophobic sands
Zeynep Karatza, Jim Buckman, Gabriela Medero and Christopher Thomas Stone Beckett

03041 Fall cone test on biopolymer-treated clay
Zhanbo Cheng, Jing Ni, Haotian Ding and Xueyu Geng

03042 Hydromechanical behaviour of hydrophobised soils of varying degrees of saturation: a comprehensive review
Zheng Zhou and Anthony Leung

03043 Investigating the contribution of claystone to the swelling pressure of its mixture with bentonite
Zhixiong Zeng, Yu-Jun Cui, Nathalie Conil and Jean Talandier

03044 Changes in microstructure and mineralogy of a lime-treated silty soil during curing time
Zi Ying, Yu-Jun Cui, Nadia Benahmed and Myriam Duc

Special session on energy geotechnics

04001 Numerical simulation of a water infiltration test on a proposed backfill material in nuclear waste repositories
Abhishek Rawat, Anne Catherine Dieudonne, Wiebke Baille and Frederic Collin

4th European Conference on Unsaturated Soils E-UNSAT 2020

19 - 21 October 2020
ONLINE CONFERENCE



- 04002 Development of a THMC code for bentonites in Comsol Multiphysics
Angel Yustres, Rubén López-Vizcaíno, Virginia Cabrera and Vicente Navarro
- 04003 Hydro-mechanical behaviour of binary bentonite pellet and powder mixtures
Arisleidy Mesa Alcantara, Enrique Romero, Nadia Mokni and Sebastia Olivella
- 04004 Modelling of oedometer tests on pellet-powder bentonite mixtures to support mock-up test analysis
Arisleidy Mesa Alcantara, Nadia Mokni, Enrique Romero and Sebastia Olivella
- 04005 Impacts of Unsaturated Conditions on The Ultimate Axial Capacity of Energy Piles
Fatemah Behbehani and John S. McCartney
- 04006 A coupled hydro – mechanical approach for modelling the volume change behaviour of compacted bentonite
Jose A. Bosch, Alessio Ferrari and Lyesse Laloui
- 04007 Effects of temperature, test time duration and heat flux in thermal conductivity measurements under transient conditions in dry and fully saturated states
Kamar Aljundi, Ana Vieira, José Lapa and Rafaela Cardoso
- 04008 Gas transport in compacted bentonite and their coupled hydro-mechanical interactions
Laura Gonzalez Blanco, Enrique Romero and Paul Marschall
- 04009 Hydro-mechanical behaviour of a pellets based bentonite seal: Numerical modelling of lab scale experiments
Liliana Gramegna, Robert Charlier, Jean Talandier, Frederic Collin and Christophe Imbert
- 04010 Low-suction water retention capacity of bentonite at high temperature
María Victoria Villar, Carlos Gutiérrez-Álvarez and Rubén Iglesias
- 04011 Swelling behavior of unsaturated claystone/ bentonite mixtures
Marvin Middelhoff, Olivier Cuisinier, Farimah Masrouri, Jean Talandier and Nathalie Conil
- 04012 Restoring initial conditions in a deep argillaceous rock with induced suction on retrieval
Nuria Sau Valenzuela, Enrique Romero Morales and Hervé Van Baelen
- 04013 Effect of initial conditions on the predicted response of thermally-activated piles
Peter John Bourne-Webb, Teresa Maria Bodas Freitas, Donatella Sterpi and Martina Zito
- 04014 Effect of Elevated Temperatures on Lateral Earth Pressures in Unsaturated Soils
Sannith Kumar Thota and Farshid Vahedifard

4th European Conference on Unsaturated Soils E-UNSAT 2020

19 - 21 October 2020
ONLINE CONFERENCE



04015 Numerically reproduced HE-E experiment of Mt Terri project by Thermo-Hydro-Mechanical coupled model
Shin Sato, Shuichi Yamamoto, Masaaki Fukaya, Yasuhiro Tawara, Kei Tanaka, Florian Kober and Seda Torisu

Special session on biocementation

05001 BOREAL, Bio- reinforcement of embankments by biocalcification
Annette Esnault Filet, Ira Gutjahr, Aurelie Garandet, Amandine Viglino, Rémi Béguin, Jean-Michel Monier, Laurent Oxarango, Fabrice Emeriault and Sabine Castanier Perthuisot

05002 Physical and geotechnical properties of a silty sand soil treated with calcium carbonate fixing bacteria
Eduardo Garzón Garzón, Laura Morales, Juan Reca, Enrique Romero and Pedro José Sánchez-Soto

05003 Unsaturated Fluid Flow through Granular Soils Treated with Microbial Induced Desaturation and Precipitation
Elizabeth Stallings Young, Leon van Paassen and Claudia Zapata

05004 Comparison of experimental techniques for biocementation of sands considering homogeneous volume distribution of precipitated calcium carbonate
Francisco Centeno Dias, Inês Borges, Sofia O.D. Duarte, Gabriel A. Monteiro and Rafaela Cardoso

05005 Discrete Element Modelling for biocemented sand: effect of calcite distribution at the microscopic scale
Mohammad Abbas, Deepak Kunhappan, Abdelali Dadda, Christian Geindreau, Fabrice Emeriault, Annette Esnault-Filet and Aurélie Garandet

05006 Implementation of biocementation for a partially saturated problematic soil of the UK railway network
Muhammad Umair Safdar, Maria Mavroulidou, Michael Gunn, Christopher Gray, Diane Purchase, Jonathan Garelick and Ian Payne

05007 Benefits and drawbacks of electrically assisted carbonate mineralization for soil bio-improvement
Patrick Hicher, Dimitrios Terzis and Lyesse Laloui

05008 Effect of the soil type on the biocementation process by enzymatic way
Paulo Venda Oliveira and Luís Freitas

05009 The effect of microbial calcite precipitation on the retention properties of unsaturated fine-grained soils: discussion of the governing factors
Rahim Saffari, Ehsan Nikooee and Ghassem Habibagahi

4th European Conference on Unsaturated Soils E-UNSAT 2020

19 - 21 October 2020
ONLINE CONFERENCE



Special session on the reuse of waste geomaterials

- 06001 Use of class C fly ash for stabilization of fine grained soils
Canan Turan, Akbar Javadi, Raffaele Vinai, Nader Shariatmadari and Raziye Farmani
- 06002 Characterisation of geomaterials and non-conventional waste streams for their reuse as engineered materials
Claudio Oggeri and Raffaele Vinai
- 06003 Hydro-mechanical behaviour of alkali-activated binder treated soil
Enza Vitale, Antonello Marocco, Michael Khatib and Giacomo Russo
- 06004 Water retention curves of lightweight cemented soils
Enza Vitale, Olivier Cuisinier, Giacomo Russo, Dimitri Deneele, Domenico De Sarno, Marco Valerio Nicotera, Raffaele Papa and Gianfranco Urciuoli
- 06005 Biochar for the improvement of soil and rock with acid potential
Erlend Sørmo, Erika Kämäräinen, Matilda Edvardsson and Christian Maurice
- 06006 Amelioration of permeable soil with green liquor dregs for the construction of sealing layers for mine waste storage facilities
Ida Kronsell, Susanne Nigéus, Anna Virolainen, Yu Jia, Thomas Pabst and Christian Maurice
- 06007 Experimental study on the effect of chitosan biopolymer on sandy soil stabilization
Nader Shariatmadari, Mohammad Reza Amiri Tasuji, Pooria Ghadir and A. Akbar Javadi
- 06008 Impact of successive wetting and drying cycles on the hydromechanical behaviour of a treated soil
Olivier Cuisinier
- 06009 Hydromechanical properties and microstructure of a kaolin treated with vinyl-based copolymer
Olivier Cuisinier, Alper Sezer, Sossio Fabio Graziano and Giacomo Russo