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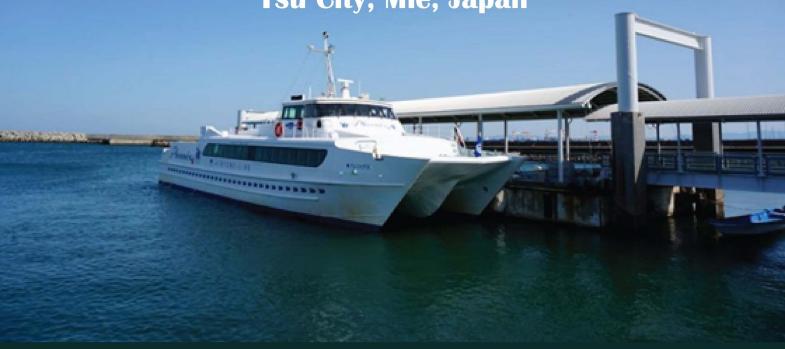
# **GEOMATE Program**



# THE 13th INTERNATIONAL CONFERENCE ON

Geotechnique, Construction Materials & Environment

14-16 November 2023 Hotel Tsu Center Palace Tsu City, Mie, Japan



Edited by Prof. Zakaria Hossain





GEOMATE 2023 - The 13th International Conference on Geotechnique, Construction Materials and Environment, from 14-16 November 2023, Tsu, Mie, Japan.

## **Welcome Participants**

Welcome to the GEOMATE 2023 - The Thirteenth International Conference on Geotechnique, Construction Materials and Environment, GEOMATE 2023, Tsu, Mie, Japan, organized by The GEOMATE International Society and Mie University Research Center for Environmental Load Reduction, Japan.

We would like to thank you for your participation, especially the authors who have submitted interesting and important papers, with most of them here to share their valuable experiences with fellow participants. We appreciate the contribution of session chairpersons, conference advisors, and all those who have helped in one way or another to make this conference a success.

The Secretariat desk has been set up to serve you and ensure you participate actively in the deliberations. Please get in touch with any secretariat staff for any assistance you may require during these three days of the conference.

Please wear your name badge at all times during the conference and the associated events, as it will create a friendlier atmosphere where fellow participants can address you by your name. This will also serve as an identification for your participation in the conference activities.

Kindly identify all materials and documentation handed to you or sent by post with your name so that we can return them to you if you have inadvertently forgotten to take them with you. Please regularly check the CONFERENCE WEBSITE and NOTICE BOARD for program changes and announcements.

On behalf of the organizing committee, we invite you to stay on after the conference to enjoy discussions, sights of Tsu City, Mie Prefecture, and the nearby places of interest.

Yours Sincerely,

Professor Dr. Zakaria Hossain Conference Chairman

14 November 2023

# **GEOMATE 2023 Program Summary with ID**

## Day 1: Tuesday, 14 November 2023

**1500-1800** Registrations

1800-1900 Welcome Cocktails

1900-2000 Special Dinner for Keynote Speakers

## Day 2: Wednesday, 15 November 2023

"All meeting times are in Japan time."

0830-1700 Registration

0900-0910 Opening and Welcome Address

Welcome address by Prof Zakaria Hossain

0910-1010 Keynote Session

Chair: Dr. John Smith

Speaker: Prof. Toshinori Sakai

Title: BREAKAGE PROPERTIES OF GROUND ANCHORS UNDER BENDING DEFORMATION

Speaker: Prof. Satoshi Kaneco

Title: PHOTOCATALYTIC HYDROGEN PRODUCTION FROM AQUEOUS OXALIC ACID SOLUTION

1010-1030: Morning Refreshments

1030-1130 Oral Session 1

Chair: Prof. Orlean Dela Cruz

g13131, g13145, g13148, g13150, g13152, g13418

1130-1230 Oral Session 3

Chair: Dr. Hamidou Hamadoum Tamboura

g13154, g13161, g13163, g13164, g13167, g13168

1030-1130 Oral Session 2

Chair: Prof. Chinumani Choudhury

g13151, g13198, g13232, g13242, g13249

1130-1230 Oral Session 4

Chair: Prof. Daniel Nichol Valerio

g13251, g13257, g13269, g13297, g13299, g13300

1230-1330 Lunch

1330-1430 Oral Session 5

Chair: Prof. Kyra Kamille Toledo

g13169, g13170, g13171, g13176, g13177, g13182

1430-1530 Oral Session 7

Chair: Dr. Samudra Jayasekera

g13185, g13197, g13200, g13204, g13207, g13212

1330-1430 Oral Session 6

Chair: Dr. Chinumani Choudhury

g13301, g13311, g13323, g13339, g13341, g13342

1430-1530 Oral Session 8

Chair: Dr. Kasam Kasam

g13346, g13381, g13394, g13407, g13424, g13120

ZOOM 1: 1430-1530

(Oral and Poster Session)

Chair: Prof. Matthew

Travis Alcantara

g13132, g13143, g13159,

g13186, g13188, g13227

1530-1550: Afternoon Refreshments

Chair: Prof. Michiko Masuda

Poster Session-1 (hang at 1300 ~, remove at 1700) Q&A 1530

g13135, g13139, g13142, g13146, g13155, g13156, g13157, g13166

1550-1600 Group Photo

1600-1620 Journal Publications Guidance (Room Oral Session 5)

1620-1720 Oral Session 9

Chair: Dr. Kristianto Kristianto

g13221, g13226, g13228, g13230, g13237, g13241

1720-1820 Oral Session 11

Chair: Dr. Gaoyuan Lyu

g13243, g13247, g13252, g13256, g13258, g13264

1620-1720 Oral Session 10

Chair: Dr. Sutasinee Intui

g13122, g13140, g13141, g13149, g13172, g13352

1720-1820 Oral Session 12

Chair: Prof. Vuttichai Chatpattananan

g13179, g13180, g13181, g13184, g13187, g13192

ZOOM 2: 1720-1820

(Oral and Poster Session) **Chair:** Prof. Md Aftabur

Rahman

g13253, g13261, g13274, g13302, g13303, g13344

1830-2030 Banquet & Awards Ceremony

1830 Group Photo in Banquet Hall

1930-2030 Awards Ceremony

2030 Adjournment for the Day

# **GEOMATE 2023 Program Summary with ID**

## Day 3: Thursday, 16 November 2023

"All meeting times are in Japan time."

**0830-1600** Registration

0830-0930 Oral Session 13

**Chair:** Dr. Premalatha K g13272, g13278, g13295, g13298, g13304, g13306

0930-1030 Oral Session 15

Chair: Prof. Rajiv Eldon Abdullah

g13307, g13310, g13315, g13327, g13353, g13354

0830-0930 Oral Session 14

Chair: Prof. Rolando Orense

g13193, g13196, g13201, g13202, g13213, g13215

0930-1030 Oral Session 16

Chair: Dr. Komsoon Somprasong

g13218, g13225, g13235, g13246, g13255, g13260

1030-1050: Morning Refreshments

Chair: Prof. Joe Robert PaulLucena

Poster Session-2 (hang at 0900~, remove at 1250) Q&A 1030

g13174, g13175, g13208, g13219, g13229, g13279, g13289

1050-1150 Oral Session 17

Chair: Dr. Nurmunira Muhammad

g13366, g13367, g13406, g13408, g13440, g13449

1150-1250 Oral Session 19

Chair: Prof. Mohd Nazip Suratman

g13262, g13266, g13268, g13285, g13288, g13292

1050-1150 Oral Session 18

Chair: Prof. Mark Paulo Alcala

g13294, g13308, g13309, g13317, g13324, g13371

1150-1250 Oral Session 20

Chair: Dr. Ryan Ramirez

g13326, g13330, g13332, g13334, g13343, g13457

ZOOM 3: 1150-1250

(Oral and Poster Session)

Chair: Prof. Joe Robert

PaulLucena

g13345, g13379, g13380,

g13382, g13399, g13413,

g13438

1250-1350 Lunch

1350-1450 Oral Session 21

Chair: Prof. Cielo Frianeza

g13362, g13370, g13375, g13378, g13384, g13387

1450-1550 Oral Session 23

Chair: Prof. Michiko Masuda

g13348, g13452, g13453, g13454, g13455, g13460

1350-1450 Oral Session 22

Chair: Prof. Radim Cajka

g13392, g13398, g13411, g13430, g13431, g13331

1450-1550 Oral Session 24

Chair: Dr. Zulfa Hanan Ashaari

g13441, g13369, g13368, g13459, g13458, g13461

**ZOOM 4: 1350-1450** 

(Oral and Poster Session)

Chair: Dr. Nurmunira

Muhammad

g13425, g13427, g13428, g13442, g13325, g13447,

~121E2

1550-1610: Afternoon Refreshments

Chair: Dr. Kusno Kamil

Poster Session-3 (hang at 1300 ~, remove at 1700) Q&A 1630 g13291, g13296, g13313, g13390, g13404, g13405, g13437

1610-1630 Journal Publications Guidance (Room Oral Session 5)

1630-1640 Closure of Conference, Group Photo

Day 4: Friday, 17 November 2023

1300-1700 Technical Tour

	Day 1: Tuesday, 14 November 2023 Onsite only
1500-1800	Registrations Onsite Only
1800-2000	Welcome Dinner
	Day 2: Oral Sessions - Wednesday, 15 November 2023  All online & onsite meeting times are in Japan time.
0830-1700	Registration
0900-0910	Opening and Welcome Address
	09:00-09:10 Welcome address by Professor Dr. Zakaria Hossain, Mie University, Japan
	0910-1010 Keynote Session
0910-1000	Chair: Dr. John Smith Speaker: Prof. Toshinori Sakai Title: BREAKAGE PROPERTIES OF GROUND ANCHORS UNDER BENDING DEFORMATION Speaker: Prof. Satoshi Kaneco Title: PHOTOCATALYTIC HYDROGEN PRODUCTION FROM AQUEOUS OXALIC ACID SOLUTION
1010-1030	Morning Refreshments
1030-1130	Chair: Prof. Orlean Dela Cruz g13131, g13145, g13148, g13150, g13152, g13418  g13131 THE SHEAR STRENGTH OF EXPANSIVE SOIL STABILIZED WITH AGRICULTURAL WASTES UNDER VARIOUS CURING METHODS Mary Ann Adajar, Earl Matthew Gallardo, Hans Kenneth Garcia, Shean Berwin Gonzales, and Jeffrey Christian Phi g13145 LESSON LEARNED FROM CIANJUR EARTHQUAKE (DISASTER): CASE STUDY EVALUATION ON NEW ACTIVE FAULT IN WEST JAVA AND DISASTER MITIGATION FOR ROAD AUTHORITIES Fahmi Aldiamar, Desyanti and Muhammad Rizaldi Nuraulia g13148 A CASE STUDY ON THE EFFECTIVENESS OF DEEP WELLS IN LANDSLIDE COUNTERMEASURES Takeshi Kusumoto and Toshinori Sakai g13150 STUDY ON MANAGEMENT VALUES OF FREEWAY SLOPES CONSIDERING ANCHOR RESIDUAL PRELOADS BY NUMERICAL SIMULATION METHOD Chia-Yun Wei, Pin-Lun Chen, Sao-Jeng Chao and Hao Yang g13152 PREDICTION OF GEOTECHNICAL SURVEY RESULTS USING MACHINE LEARNING WITH BAGGING

## 1030-1130 Oral Session 2 Wednesday, 15 November 2023

Chair: Prof. Chinumani Choudhury

g13151, g13198, g13232, g13242, g13249

g13151 CONSIDERATION OF AIRCRAFT LATERAL WANDER IN AIRPORT PCI ANALYSIS THROUGH VARIATION OF SAMPLE AREA

Aris Wibowo, Bambang Sugeng Subagio, Harmein Rahman and Russ Bona Frazila

g13198 DEVELOPMENT OF AUTOMATIC DENSITY MEASUREMENT SYSTEM FOR SOIL SUSPENSION Hidetake Matsui, Noriyuki Yasufuku, Tadafumi Fujiwara and Hiroki Ikegami

1030-1130

g13232 STUDY ON THE EFFECT OF ELECTRIC ARC FURNACE SLAG UNDER DIFFERENT ENVIRONMENTAL CONDITIONS

Wei-Chien Wang, Tzu-Hsuan Chen, Jia-Chen Xue, Ting-Ji Hong and Chia-Yun Huang

g13242 STUDY OF ENGINEERING PROPERTIES OF CELLULOSE AS A DISPERSANT FOR GRAPHENE IN CEMENT MORTAR

Wei Chien Wang, Chia Yun Huang, Ming Gin Lee, Hao Ting Wu and Tzu Hsuan Chen

g13249 COMPARISON OF REDUCING SUGARS AS CORROSION INHIBITORS

Yoko Sakakihara, Yoshishige Motobayashi, Tomoko Takashita, Shinichiro Okazaki, Tomohiko Ishii and Hidenori Yoshida

#### 1130-1230 Oral Session 3 Wednesday, 15 November 2023

Chair: Dr. Hamidou Hamadoum Tamboura

g13154, g13161, g13163, g13164, g13167, g13168

g13154 FUNDAMENTAL STUDY OF THE EFFECT OF PARTICLE SHAPE AND RELATIVE DENSITY OF SAND ON THE ANGLE OF REPOSE TEST RESULTS

Eri Kamegaya and Hidetoshi Nishioka

g13161 BASIC STUDY ON ADAPTATION OF SUBBASE COURSE REINFORCEMENT METHOD USING GEOCELLS TO COLD REGIONS

Amarsaikhan Khanbayar, Dai Nakamura, Yuki Minabe, Shunzo Kawajiri, Takayuki Kawaguchi, Kenta Nakai and Masashi Kajimoto

1130-1230

g13163 LESSONS OF THE IMPLEMENTATION OF ROAD SLOPE EROSION CONTROL BY VEGETATION IN INDONESIA

Asep Sunandar, Sri Yeni Mulyani Rochendi, Dea Pertiwi and Zulfikar Ali Ibadurrahman

g13164 SHAPE-DEPENDENT RHEOLOGY OF DRY GRANULAR FLOWS STUDIED BY LS-DEM Haoran Jiang, Reid Kawamoto and Takashi Matsushima

g13167 STABILIZED SOIL BY USING RECYCLED ASPHALTIC PAVEMENT FOR SUBBASE AND BASE. Supong Wichaipibool and Rattamanee Nuntasarn

g13168 CASE STUDY OF THE SLOPE STABILITY OF BUENG NONG KOT AT BANPED, MUENG DISTRICT, KHON KAEN PROVICE

Panuwat Daenkasai and Rattamanee Nuntasarn

## 1130-1230 Oral Session 4 Wednesday, 15 November 2023

**Chair: Prof. Daniel Nichol Valerio** 

g13251, g13257, g13269, g13297, g13299, g13300

1130-1230	g13251 INVESTIGATION OF THE USE OF POLYSTYRENE PLASTIC WASTE AS COARSE AGGREGATES IN
	CONCRETE  Marc Adrian Kung, Albino Sablayan IV and Daniel Nichol R. Valerio
	g13257 WATER PENETRATION PROPERTY OF CONCRETE WITH COPPER SLAG FINE AGGREGATE Manami Kawano and Takuma Kadono
	g13269 STRESS-STRAIN RELATIONSHIP OF GEOPOLYMER CONCRETE UNDER COMPRESSIVE LOADING Apichat Janpila, Piyawat Foytong, Patcharapol Posi, Nonthaseith Laungekatin, Ampol Wongsa, Vanchai Sata and Prinya Chindaprasirt
	g13297 NUMERICAL MODEL OF MACRO-CELL CORROSION CONTROLLED BY OXYGEN-DIFFUSION IN CONCRETE
	Shun Kusakabe, Keiyu Kawaai, Takahiro Nishida and Isao Ujike
	g13299 EFFECT OF INITIAL CURING ON CRACKING RESISTANCE AGAINST DRYING SHRINKAGE IN PCM SPECIMENS
	Kandai Fujishima, Keiyu Kawaai and Isao Ujike
	g13300 QUALITY EVALUATION ON THE SIDE WALL OF BOX CULVERT BASED ON AIR PERMEABILITY TESTS
	Haruto Nakagawa, Isao Ujike and Keiyu Kawaai
12:30-13:30	Lunch
	1330-1430 Oral Session 5 Wednesday, 15 November 2023
	Chair: Prof. Kyra Kamille Toledo
	g13169, g13170, g13171, g13176, g13177, g13182
1330-1430	g13169 DESIGNING AN EFFICIENT SUPPORT SYSTEM USING AN EMPIRICAL APPROACH: A CASE STUDY IN BATU LUBANG TUNNEL, CENTRAL TAPANULI, NORTH SUMATERA, INDONESIA Muhammad Rizaldi Nuraulia and Susy Kartikasari Ariestianty
	g13170 THE BEHAVIOR OF COMPACTED KHONKAEN LOESS AS BACKFILL ON RETAINING WALL BETWEEEN WET AND DRY CONDITION IN FIELD Viriya Thawaro, Prommin Thaowandee and Ratamanee Nuntasarn
	g13171 MICROSCOPY AND MECHANICAL BEHAVIOR OF PUMICE SINGLE PARTICLE I Wayan Ariyana Basoka, Kiyonobu Kasama, Zentaro Furukawa, Noriyuki Yasufuku, Ahmad Rifa'i
	g13176 SENSITIVITY ANALYSIS OF SOIL PARAMETERS FOR MPS-CAE SIMULATION ON SOIL BEHAVIOURS
	Sudip Shakya, Koichi Tayama and Shinya Inazumi
	g13177 CONFIGURATION EFFECTS OF AGRICULTURE EQUIPMENT ON SOIL DEFORMATION: EXPERIMENT AND NUMERICAL ANALYSIS
	Juthanee Phromjan, Michael Kaliske and Chakrit Suvanjumrat
	g13182 MECHANICAL PROPERTIES OF SIMULATED UNDER-SIEVE RESIDUE MIXED WITH STEEL SLAG Hanli Hu and Yoshiaki Kikuchi
	1330-1430 Oral Session 6 Wednesday, 15 November 2023
	Chair: Dr. Chinumani Choudhury
	g13301, g13311, g13323, g13339, g13341, g13342

g13301 AI ASSISTED CAUSE ESTIMATION OF CRACKING IN CONCRETE BASED ON STANDARD INVESTIGATION

Daiki Chikahara, Keiyu Kawaai, Takahiro Nishida and Isao Ujike

g13311 CHARACTERIZATION OF PHYSICAL AND BENDING PROPERTIES OF THE BAMBOO SPECIES BAMBUSA PHILIPPINENSIS

Marielle Angelique Bayangos, Kenneth De Leon, Toby Miguel Orduña, Angelica Trisha Panganiban, Shikara Poblete and Carlo Joseph Cacanando

g13323 BEHAVIOR OF FOAM CONCRETE USING HIGH-VOLUME FLY ASH

Yohans Sunarno, Parea Rusan Rangan and Miswar Tumpu

1330-1430

g13339 STRUCTURAL ASSESSMENT AND SEISMIC RETROFITTING OF IBNU SINA HOSPITAL BUILDING IN WEST PASAMAN, INDONESIA, USING RC SHEAR WALL

Fauzan and Geby Aryo Agista

g13341 EVALUATION OF A BUILDING STRUCTURE WITH DIFFERENTIAL SETTLEMENTS IN PADANG CITY, INDONESIA

Fauzan and Chintya Chairani

g13342 ANALYTICAL STUDY ON SEISMIC BEHAVIOR OF URM HOUSES IN WEST PASAMAN STRENGTHENED USING FERROCEMENT LAYERS

Fauzan, Nilda Tri Putri, Febrin Anas Ismail and Jody Kelvin

## 1430-1530 Oral Session 7 Wednesday, 15 November 2023

Chair: Dr. Samudra Jayasekera

g13185, g13197, g13200, g13204, g13207, g13212

g13185 EFFECT OF SOFT CLAY PROPERTIES AND THICKNESS ON LAND SUBSIDENCE IN BANGKOK PLAIN, THAILAND

Sutasinee Intui, Shinya Inazumi, Suttisak Soralump and Daraporn Phusing

g13197 ESTIMATION OF THE BEARING CAPACITY OF AN OPEN-ENDED PILE WITH CONTROLLING THE FRICTION COEFFICIENT OF THE INSIDE OF THE PILE WALL

Ryosuke Saegusa, Yoshiaki Kikuchi, Syunsuke Nomura and Rikuto Hirayama

1430-1530

g13200 TWO - DIMENSIONAL MODEL EXPERIMENT ON PILE GROUP EFFECT BETWEEN PILES WITH DIFFERENT STIFFNESS

Tsubasa Ohata, Hidetoshi Nishioka and Takatoshi Sagawa

g13204 DEVELOPMENT OF MULTI-POINT NEEDLE PENETRATION APPARATUS FOR GROUND IMPROVEMENT QUALITY EVALUATION

Makiko Kobayashi, Tadafumi Fujiwara and Kiyonobu Kasama

g13207 PRELIMINARY EVALUATION OF THE VIABILITY OF SINGLE-USE FACE MASK AS A SUBSTITUTE NONWOVEN GEOTEXTILE

Ella Jotojot, Donn Caryl Cabase, Chester Piolo Cruz, Marvin Lester Chu and Ryan Ramirez

g13212 INVESTIGATION OF THE ACTUAL CONDITIONS AT STRUCTURES IN SHIKOKU BASED ON THE SAFETY ASSESSMENT OF EXISTING TRANSMISSON TOWER FOUNDATIONS

Toma Otani and Shinichiro Okazaki

#### 1430-1530 Oral Session 8 Wednesday, 15 November 2023

Chair: Dr. Kasam Kasam

g13346, g13381, g13394, g13407, g13424, g13120

	g13346 EXPERIMENTAL STUDY ON A VIBRATION ISOLATOR USING A Cu-Al-Mn-BASED SHAPE MEMORY ALLOY
	Takumi Sasaki, Suguru Miyoshi and Hiroki Cho
	g13381 THE EFFECT OF FIRING TEMPERATURE ON THE PROPERTIES OF BRICKS IN WEST SUMATRA Nevy Sandra, Fajri Yusmar, Annisa Prita Melinda, Lukman Murdiansyah and Muhammad Akbar Caronge
	g13394 DEVELOPMENT OF COLOR SCALE DIGITAL IMAGE PROCESSING FOR AGGREGATE SIZE CLASSIFICATION Tanapon Khunin and Komsoon Somprasong
1430-1530	g13407 STEAM-CURED CALCIUM SULFOALUMINATE-BASED EXPANSIVE CONCRETE: AN ALTERNATIVE FOR PRECAST MATERIALS
	Adhitya Leonard Wijaya and Kenichiro Nakarai
	g13424 PERFORMANCE EVALUATION OF PRESTRESSED BRIDGE STRUCTURES IN PADANG PARIAMAN DISTRICT, INDONESIA AGAINST EARTHQUAKE LOADS USING FRAGILITY CURVES Fauzan and Dani Iswara Sundari
	g13120 IMPACTS OF THE JANUARY-FEBRUARY 2023 SEVERE WEATHER EVENTS ON GEOSTRUCTURES IN AUCKLAND, NZ Rolando P Orense
	1430-1530 ZOOM 1 Oral & Poster Session Wednesday, 15 November 2023
	Chair: Prof. Matthew Travis Alcantara
	g13132, g13143, g13159, g13186, g13188, g13227
	g13132 EFFECTIVENESS OF SAND COMPACTION PILE IN ALLUVIAL SOILS: A CASE STUDY OF A REAL STRUCTURE IN BANGLADESH Md. Aftabur Rahman, Robin Khastagir and Opu Chandra Debanath
	g13143 PROPOSAL FOR A MIXED-USE PLAN FOR BRIDGES PLANNING OF ENVIRONMENT-FRIENDLY DISASTER PREVENTION BASE FACILITIES BY CONSOLIDATING FUNCTIONS Shinji Sato and Hiroki Yamakawa
1430-1530	g13159 UNDERSTANDING LATERAL SPREADING CASE HISTORIES USING INTERPRETABLE MACHINE LEARNING Emerzon S. Torres and Jonathan R. Dungca
	g13186 MATERIAL PROPERTIES OF CONCRETE MIXED WITH MUNICIPAL SOLID WASTE INCINERATION ASH FOR CEMENT REPLACEMENT
	Ayane Yanaka, Taku Higashino, Shinichiro Okazaki, Naomichi Matsumoto and Hidenori Yoshida
	g13188 ON SPACE DESIGN OF SIDEWALK CAFÉ AND ACTIVATION OF STREET SPACE Tatsuki Watanabe and Kazunari Tanaka
	g13227 A STUDY ON BIOPOLYMER AS A SUSTAINABLE SLOPE STABILIZER FOR AN ACTIVE CUT SLOPE IN GUWAHATI CITY Zenia Karam and Chinumani Choudhury
1530-1550	Afternoon Refreshments
1550-1600	Group Photo
1600-1620	Journal Publications Guidance (Room Oral Session 5)

## 1620-1720 Oral Session 9 Wednesday, 15 November 2023

Chair: Dr. Kristianto Kristianto

g13221, g13226, g13228, g13230, g13237, g13241

g13221 ESTIMATING GROUNDWATER ELEVATION USING MACHINE LEARNING MODELS: A CASE OF METRO MANILA, PHILIPPINES

Joenel Galupino and Jonathan Dungca

g13226 THREE-DIMENSIONAL PHYSICAL MODELING ON SOFT SOIL IMPROVEMENT BY RIGID INCLUSIONS

Parita Bunchob, Chainarong Songsiri, Palinee Sumitsawan, Kwansirinapa Thanawong and Suriyavut Pra-ai

#### 1620-1720

g13228 A STUDY OF IMPACT FORCE OF DRY GRANULAR FLOW DOWN AN INCLINE PLANE Artid Reangyos, Thossapon Thungfonphum, Phuttigon Dhammarak, Kwansirinapa Thanawong and Suriyavut Pra-ai

g13230 THE SWELL-SHRINK PROPERTIES OF INTACT AND DISTURBED CLAYEY AND MARLY SOILS: THE DISTURBANCE EFFECT

Lamis Makki, Myriam Duc and Fabien Szymkiewicz

g13237 HYDRAULIC CONDUCTIVITY BEHAVIOR OF MINE TAILINGS DURING WETTING AND DRYING CYCLE

Miller DL. Cutora, Ma. Elizabeth Ann L. Uy and Mary Ann Q. Adajar

g13241 MECHANICAL EFFECTS OF TREATED BAMBOO AND POLYPROPELENE FIBERS AS REINFORCEMENT IN SOIL

Maria Emilia P. Sevilla, Miller DL. Cutora, Maynuel S. Carpio, David Emmanuel D. Diaz, Ruther P. Ebero and Al Christian Paul Z. Orbista

#### 1620-1720 Oral Session 10 Wednesday, 15 November 2023

Chair: Dr. Sutasinee Intui

 $\mathtt{g13122}, \mathtt{g13140}, \mathtt{g13141}, \mathtt{g13149}, \mathtt{g13172}, \mathtt{g13352}$ 

## 1620-1720

g13122 REMOTE MONITORING AND HYDRAULIC ANALYSIS OF IRRIGATION SYSTEMS: JALAUR RIVER MULTIPURPOSE PROJECT II

Mark Paulo S.D. Alcala

g13140 THEORETICAL AND EXPERIMENTAL EVALUATIONS ON NEUTRALIZATION OF CONSTRUCTION-GENERATED ALKALINE SOILS

Koki Nakao, Kohei Maru, Sudip Shakya and Shinya Inazumi

g13141 BASIC PROPERTIES OF SUPER FLUIDIZED SOIL USING RECYCLED CONSTRUCTION-GENERATED SLUDGE

Yuji Shigematsu, Ryusuke Nakano, Koki Nakao and Shinya Inazumi

g13149 STUDY ON SEDIMENT ANALYSIS AND QUANTITATIVE SANDBAR MONITORING OF UAV AT BABAMEGAWA RIVER

Yoshitaka Jiken, Kazuya Watanabe and Noritoshi Saito

g13172 ENVIRONMENTAL IMPACT STUDY OF VIBRATION AND SOUND SIGNALS OF AIR-CONDITIONER COOLING UNITS

Suphattharachai Chomphan, Attaphon Chaimanatsakun and Sutartip Wittayapiyanon

	g13352 EFFECT OF SEASONAL VARIATION ON MICROPLASTICS CONTAMINATION IN SEDIMENT OF
1620-1720	THE MIDDLE CHI RIVER, THAILAND
2020 2720	Pattira Kasamesiri, Wipavee Thaimuangphol and Banthita Sawasdee
	1720-1820 Oral Session 11 Wednesday, 15 November 2023
	Chair: Dr. Gaoyuan Lyu
	g13243, g13247, g13252, g13256, g13258, g13264
	g13243 SOUTH-EAST VIADUCT OF THE NEW TOULOUSE METRO LINE: CFA PILES BEHAVIOR IN THE TOULOUSE MOLASSE
	Fabien Szymkiewicz, Charlotte Cochez, Jean-Yves De Lamballerie, Carlos Minatchy, Olivier Givet and Marie Lafon
	g13247 SLOPE FLOW BEHAVIOR OF GRANULAR MATERIALS WITH DIFFERENT SIDE CONSTRAINT CONDITIONS
	Naoto Naito, Yuto Okugawa, Tatsuya Matsuda and Kinya Miura
1720-1820	g13252 AN INVESTIGATION OF SCOUR AND EROSION PROCESS DUE TO WAVES AROUND MONOPILE FOUNDATION
	Tatsuya Matsuda, Kinya Miura, Naoto Naito and Daiki Shirakura
	g13256 PARAMETER ESTIMATION OF A FOUR-PARAMETER RAMBERG-OSGOOD POWER LAW FOR MODELLING STRAIN SOFTENING SOILS Matthew Travis Alcantara and Mark Albert Zarco
	g13258 DYNAMIC PROBING (DPSH) INVESTIGATION FOR EMBANKMENTS AND BACK-FILL IN
	SEQUENTIAL EXTRACTIVE LAND USE  John Victor Smith, Peter Corr and Sanjaya Perera
	g13264 APPLICATION OF BY-PRODUCT MG-RICH SYNTHETIC GYPSUM AS AN ADDITIVE IN THE STABILIZATION OF PEAT SOIL
	Ayah Almsedeen, Nurmunira Muhammad and Mohd Fakhrurrazi Ishak
	1720-1820 Oral Session 12 Wednesday, 15 November 2023
	Chair: Prof. Vuttichai Chatpattananan
	g13179, g13180, g13181, g13184, g13187, g13192
1720-1820	g13179 STUDY OF PAVEMENT CONTACT PATCH EFFECTS ON THE AIR VOLUME BY FINITE ELEMENT METHOD
	Thanat Saisaengtham and Chakrit Suvanjumrat
	g13180 VERIFICATION OF MATHEMATICAL MODELS FOR THE TIRE-SOIL INTERACTION BY EXPERIMENTS
	Siwakorn Phakdee, Ravivat Rugsaj and Chakrit Suvanjumrat
	g13181 Cu, Zn, Fe AND Mn CONCENTRATIONS OF SOME CRUSTACEANS IN THE WAKAGAWA ESTUARY TIDAL FLAT Kazuko Kubo and Hiroyuki Ii
	g13184 DEVELOPMENT OF FIRED CLAY GRANULES AS ECO-FRIENDLY SUBSTANCES FOR NITROGEN FIXING BACTERIAL CELLS Piyawadee Saraphirom, Piyarat Namsena, Mullika Teerakun, Songklot Phonphuak, Anusorn
	Chanprathak, Sarawut Dakaew and Nonthaphong Phonphuak

g13187 WATER ENVIRONMENT IN BUMIAYU TEMPLE AREA (PLACE AND FUNCTION REVIEW) Sondang Martini Siregar, Retno Purwanti, Taqyuddin, Retno Susanti and Hudaidah

g13192 METHOD OF PRACTICAL LEARNING ON SDGs FOR UNIVERSITY STUDENTS—BASED ON EXPERIENCE OF WORKSHOP-STYLE DIALOGUE AT CAMPUS

Tomomi Maekawa

#### 1720-1820 ZOOM 2 Oral & Poster Session Wednesday, 15 November 2023

Chair: Prof. Md Aftabur Rahman

g13253, g13261, g13274, g13302, g13303, g13344

g13253 LSP (LOGIC SCORE PREFERENCE) METHOD FOR READY-TO-BUILD AREAS AND READY-TO-BUILD ENVIRONMENTS AS AN EARLY WARNING AND DISASTER MITIGATION SYSTEM RM Masri and IM Purwaamijaya

1720-1820

g13261 INTEGRATING GEODETIC CONTROL POINTS AND SPATIOTEMPORAL VARIATION IN MONITORING LAND SUBSIDENCE IN SUB-OPTIMAL TERRAIN
Sri Rezki Artini, Rosidawani and Dinar Dwi Anugerah Putranto

g13274 STABILIZATION OF KAOLINITIC CLAY SOIL USING SILICA FUME, EGGSHELL ASH AND LIME Muhammad Syamsul Imran Zaini and Muzamir Hasan

g13302 RESEARCH ON PSYCHOLOGICAL MODELS OF TRANSPORTATION Shion Muramoto and Kazunari Tanaka

g13303 RESEARCH ON THE EXTRAORDINARY BASED ON TRANSPORTATION Shonosuke Kajita and Kazunari Tanaka

g13344 EXPLORING THE DYNAMICS OF RIVER INFLOW AND ITS EFFECTS ON THE DEEP LAYER OF LAKE BIWA THROUGH NUMERICAL SIMULATIONS
Jinichi Koue

## Day 2: Poster Session - Wednesday, 15 November 2023

All online & onsite meeting times are in Japan time.

## 1300-1700 Poster Session 1 Wednesday, 15 November 2023

**Chair: Prof. Michiko Masuda** (Poster hang at 1300 ~, remove at 1700) Q&A 1530 g13135, g13139, g13142, g13146, g13155, g13156, g13157, g13166

g13135 REMOVAL OF SILVER(I) FROM AQUEOUS SOLUTION USING JAPANESE NATURAL ZEOLITES (MORDENITE AND CLINOPTILOLITE): A COMPARATIVE STUDY Takaaki Wajima

1300-1700

g13139 EXPERIMENTAL STUDY ON STRENGTH DEVELOPMENT AND DURABILITY OF CHEMICAL-GROUTED SAND

Toshiyuki Motohashi, Shigeo Sasahara, Sudip Shakya and Shinya Inazumi

g13142 U-NET ENSEMBLE LEARNING-BASED AUTOMATIC DETECTION OF LANDSLIDE AREAS FROM AERIAL PHOTOGRAPHS

Jonpaul Nnamdi Opara, Ryo Moriwaki and Pang-jo Chun

g13146 A SMALL-SCALE LABORATORY TEST FOCUSING ON SLOPE FAILURE PROCESS AND ACCUMULATION

Masanori Kohno and Mizuki Niwa

1300-1700	g13155 MANUFACTURING BONE CHARCOAL FOR CONSTRUCTING A FLUORINE REMOVAL SYSTEM IN GROUNDWATER Tatsuhide Hamasaki
	g13156 DECOMPOSITION OF ARTIFICIAL SWEETENERS BY OZONE OXIDATION Bingzi Chen, Yichen Chen, Shogo Taniguchi and Tatsuhide Hamasaki
	g13157 EFFECT OF PH ON OXALIC ACID DECOMPOSITION BY O3/H2O2 ADVANCED OXIDATION Yichen Chen, Bingzi Chen and Tatsuhide Hamasaki
	g13166 THE RELATIONSHIP BETWEEN SHIKISHIMA PARK USERS' BEHAVIOR AND EXTERNAL FACTORS DURING COVID-19 PANDEMIC, A CASE STUDY IN MAEBASHI CITY, GUNMA Shinya Tsukada, Xingyu Tao and Tetsuo Morita
1830-2030	Banquet & Awards Ceremony
1830	Group Photo in Banquet Hall
1930-2030	Awards Ceremony
2030	Adjournment for the Day
2030	
	Day 3 (Onsite & ZOOM): Thursday, 16 November 2023
	All online meeting times are in Japan time.
0830-1600	Registration
	0830-0930 Oral Session 13 Thursday, 16 November 2023
	Chair: Dr. Premalatha K
	g13272, g13278, g13295, g13298, g13304, g13306
	g13272 BEARING CAPACITY ESTIMATION OF STRIP FOOTING ON TWO-LAYERED c-φ SOILS BASED ON THE RIGID PLASTIC FINITE ELEMENT METHOD Hamidou Hamadoum Tamboura and Koichi Isobe
	g13278 THE INFLUENCE OF COMPACTED KHON KAEN LOESS ON THE GRAVITY RETAINING WALL Ratamanee Nuntasarn
0830-0930	g13295 A COMPARATIVE STUDY OF CANTILEVER CONCRETE RETAINING WALL AND MECHANICALLY STABILIZED EARTH WALL IN RESISTING THAILAND SEISMIC LOADS Vuttichai Chatpattananan, Vatanavongs Ratanavaraha and Chainarong Athisakul
	g13298 SEISMIC BEHAVIOR ANALYSIS OF UNDERGROUND PIPELINES CONSIDERING EARTHQUAKE MOTIONS WITH PHASE DIFFERENCE AND FAULT DISPLACEMENT Shinzan Narahara, Junji Kiyono and Aiko Furukawa
	g13304 EVALUATION OF LANDSLIDE ON METAMORPHIC ROCKS: A CASE STUDY OF KULAWARA- KULAWI NATIONAL ROAD IN CENTRAL SULAWESI Dea Pertiwi, Fahmi Aldiamar and Maulana Iqbal
	g13306 EVALUATION OF INFINITE SLOPE STABILITY WITH VARIOUS SOILS UNDER WET-DRY CYCLE Depu Hu, Shoji Kato and Byeong-Su KIM
	0830-0930 Oral Session 14 Thursday, 16 November 2023
	Chair: Prof. Rolando Orense
	g13193, g13196, g13201, g13202, g13213, g13215

0830-0930	g13193 HEAVY METAL CONCENTRATIONS IN JAPANESE RED PINE AT TADA SILVER MINE AND RYUMON MOUNTAIN Tomoaki Takeda
	g13196 THE DIFFERENT CHARACTERISTICS OF GROUND-MOTION RECORDED FOR TWO SOURCE OF DESTRUCTIVE EARTHQUAKES NEAR VOLCANO ZONE IN INDONESIA Sigit Pramono, Septian Farandi Angesthi, Muhammad Reza July Utama, Rika Swastikarani and Retno Yogi Wijayanti
	g13201 CONJUGATE FORCED CONVECTION HEAT TRANSFER THROUGH RECTANGULAR PLATE FIN HEAT SINKS BY COMPUTATIONAL FLUID DYNAMICS Supachok Chokngamvong, Jetsadaporn Priyadumkol, Machimontorn Promtong and Chakrit Suvanjumrat
	g13202 DEVELOPMENT OF CONTACT AREA MODEL FOR HYDROPLANING ESTIMATION OF MOTORCYCLE TIRES BY EXPERIMENT Weerachai Chaiworapuek , Chakrit Suvanjumrat, Natnaree Worajinda and Ravivat Rugsaj
	g13213 EFFECTS OF BIOMASS DISCHARGED IN TOYAMA PREFECTURE ON THE MODIFIED CALIFORNIA BEARING RATIO (CBR) OF MASA SOIL Tatsuya Yoshizaki, Taichi Hyodo, Naoki Tatta and Shinya Uchida
	g13215 APPLICATION OF THE ACASA MODEL AT A DRY DIPTEROPCARP FOREST IN THAILAND Srisunee Wuthiwongyothin, Kyaw Tha Paw U, and Montri Sanwangsri
0930-1030	Chair: Prof. Rajiv Eldon Abdullah g13307, g13310, g13315, g13327, g13353, g13354 g13307 ASSESSING RESIDUAL SETTLEMENT IN COLUMN FOUNDATIONS AFTER AN EARTHQUAKE USING HORIZONTAL LOADING MODEL TESTS Hiroki Yoshida, Yuki Isobe and Hidetoshi Nishioka g13310 GEOTECHNICAL DESIGN CONSIDERATION OF LOCALLY PEAT POND ON TOLL ROAD WORKS IN INDONESIA Ahmad Numan and Rinhenda Sarasati g13315 HYDRAULIC AND STRUCTURAL STABILITY OF OVERTOPPING PROTECTION OF SOIL EMBANKMENT USING GABION MATTRESSES Ryuhei Kobayashi, Syuichi Kobayashi, Naoya Takahashi and Toshihiro Morii g13327 3D MODEL OF COMPLEX LANDSLIDE ON THE PONOROGO – PACITAN ROAD, EAST JAVA PROVINCE, INDONESIA Arief Rachmansyah, Azizi Dermawan and Mayang Bunga Puspita g13353 INVESTIGATION ON GEOTECHNICAL PROPERTIES OF WEATHERED MARBLE AS AN ALTERNATIVE EMBANKMENT MATERIAL FOR ROADWAY DEVELOPMENT IN NORZAGARAY, BULACAN Engr. Jomari F. Tan, Engr. Maria Emilia P. Sevilla, Jilmar John Mateo Contreras, Kristan Aldrinn Ramos Rosales, Mayvel Yambot Cortes and Reniel Stephen Tanyag Lacanilao g13354 SLOPE FAILURE DUE TO THE 2011 OFF THE PACIFIC COAST OF TOHOKU EARTHQUAKE AT KADOI DISRICT IN HITACHIOHMIYA-CITY — COMPARISON OF SOIL LAYER COMPOSITION BASED ON SIMPLE PENETRATION TEST —

	0930-1030 Oral Session 16 Thursday, 16 November 2023
	Chair: Dr. Komsoon Somprasong
	g13218, g13225, g13235, g13246, g13255, g13260
	g13218 EVALUATING THE INFLUENCE OF TREATED BANANA FIBER ON THE STRENGTH OF SOIL SUBGRADE
	Zachary O. Datuin, Freddierick Kyle M. Garcia, Joaquin Alfonzo N. Ramos, Ron Michael O. Rieta, Erica Elice S. Uy and Miller DL. Cutora
	g13225 CHANGES IN THE NETWORK PROPERTY OF PORES DUE TO THE FORMATION OF AGGREGATES
	Atsushi Goto, Junichiro Takeuchi, Yuto Takeuchi and Masayuki Fujihara
0930-1030	g13235 CFD INVESTIGATION OF SUBCOOLED BOILING FLOW AT HIGH PRESSURE USING TWO-FLUID MODEL AND RPI CLOSURES ON OPENFOAM
0000 1000	Baramee Muangput, Patchara Udomkum, Khem Tongpricha, Tinnapob Phengpom, Jetsadaporn Priyadumkol, Chakrit Suvanjumrat and Machimontorn Promtong
	g13246 DOWNSCALING ANALYSIS OF PRECIPITATION AND TEMPERATURE USING REGIONAL CLIMATE MODEL (RCM) OVER SOUTHEAST ASIA Pramet Kaewmesri
	g13255 INVESTIGATION INTO AERODYNAMIC AND MECHANICAL PERFORMANCES OF POTENTIAL
	VERTICAL-AXIS WIND TURBINES USING CFD TECHNIQUE Jetsadaporn Priyadumkol, Baramee Muangput, Tinnapob Phengpom, Chakrit Suvanjumrat and Machimontorn Promtong
	g13260 CONCENTRATION OF HEAVY METALS SUCH AS TUNGSTEN IN PLANTS GROWING AROUND THE KIWADA MINE Daiki Yamamoto and Hiroyuki Ii
1020 1050	
1030-1050	Morning Refreshments  1050-1150 Oral Session 17 Thursday, 16 November 2023
	Chair: Dr. Nurmunira Muhammad
	g13366, g13367, g13406, g13408, g13440, g13449
1050-1150	g13366 IDENTIFICATION OF THE GOVERNING MECHANISM IN THE BEHAVIOR OF SILTY SAND Premalatha K, Arivazhagan R and Akshaya R
	g13367 QUANTIFYING THE SURFACE ROUGHNESS EVALUATION OF RAILWAY BALLAST GRAIN UNDER ROTATING DRUM ABRASION One Chandra Debanath Takashi Matsushima Shuishi Adashi and Masahira Miwa
	Opu Chandra Debanath, Takashi Matsushima, Shuichi Adachi and Masahiro Miwa
	g13406 ESTIMATION OF BOUNDARY OF CUTTIN AND FILLING OF RESIDENTIAL EMBANKMENT USING S-WAVE VELOCITY
	Akinobu Ogasawara, and Shunzo Kawajiri, Takayuki Kawaguchi and Dai Nakamura
	g13408 A SPONTANEOUSLY DISASTER EVACUATION DRILL FOR TSUNAMI BY IMITATING A GAME OF TAG
	Hiroto Tanouchi, Tomomi Nakano and Nobuyuki Egusa
	g13440 THE ROLE OF DYNAMIC CONE PENETROMETER TESTING IN ASSESSING PAVEMENT SUBGRADE STRENGTH: A LITERATURE REVIEW
	Kevin E. Garcia, Orlean G. Dela Cruz, Manuel M. Muhi and Abdollah Tabaroei

g13449 GEOTECHNICAL DAMAGE CAUSED BY 2022 PAKTIKA EARTHQUAKE IN AFGHANISTAN AND SOME CONSIDERATIONS

Abdul Bari Jahed, Takashi Ito and Ömer Aydan

## 1050-1150 Oral Session 18 Thursday, 16 November 2023

Chair: Prof. Mark Paulo Alcala

g13294, g13308, g13309, g13317, g13324, g13371

g13294 ATTENUATION CHARACTERISTICS OF PEAK-TO-PEAK OF UNDERWATER ULTRASONIC BY SUSPENDED SOLIDS

Nozomu Urahata and Kenji Okajima

1050-1150

g13308 ADSORPTION PROPERTIES OF HYDROXYAPATITE PRODUCED FROM FISH BONES FOR FLUORINE

Ayane Yanaka, Naho Ikeda, Yoshihiro Suenaga, Naomichi Matsumoto and Hidenori Yoshida

g13309 ASSESSMENT OF THE PROBABILITY OF ROAD INTERRUPTION CAUSED BY RAINFALL-INDUCED LANDSLIDES ALONG KENNON ROAD, PHILIPPINES USING REMOTE SENSING TECHNIQUES Nikki Faereolin S. Acierda, Leanna Mae T. Alarilla, Thomas Eladio David A. Cansino, Dave Lemuel H. Pagdonsolan and Rajiv Eldon E. Abdullah

g13317 NATURAL VIBRATION CHARACTERISTICS ESTIMATION OF BRIDGE CABLES BASED ON THE SUBSPACE METHOD

Aiko Furukawa and Minjiu Jiang

g13324 MAPPING THE FLOOD INUNDATION AREAS USING HEC-GEORAS AT BATANG MAHAT, LIMA PULUH KOTA REGENCY, WEST SUMATERA Junaidi, Darwizal Daoed and Diva Syandriaji

g13371 CHEMICAL RESISTANCE OF PERVIOUS CONCRETE SUBJECTED ACID AND SULPHATE ATTACK Mudasir Nazeer, Kanish Kapoor and Surinder Pal Singh

## 1150-1250 Oral Session 19 Thursday, 16 November 2023

**Chair: Prof. Mohd Nazip Suratman** 

g13262, g13266, g13268, g13285, g13288, g13292

g13262 A STUDY ON PRIORITIZATION OF RESTORATION TREATMENT OF TRANSITIONAL WETLANDS Michiko Masuda, Takumi Yokoyama and Fumitake Nishimura

g13266 HEAVY METAL CONCENTRATIONS OF CICADA SHELL AND CICADA ADULT FOR METAL MINES Hiroyuki Ii

1150-1250

g13268 LATERAL SHRINKAGE OF COMPACTED POLYURETHANE-CLAY SUBJECTED TO A SINGLE WET-DRY CYCLE

Cielo Frianeza and Mary Ann Adajar

g13285 EFFECT OF GIVING ECOENZYME PLUS ON GROWTH KALOPO (Calopogonium Mucunoides) IN MEDIA LAND OF THE FORMER COAL MINING OF PT BARA ALAM UTAMA, LAHAT, SOUTH SUMATRA Abdul Razak, Andri Wijaya Kesuma and Muhammad Agus

g13288 DEVELOPMENT OF A BAGHOUSE FILTER MODEL USING COMPUTATIONAL FLUID DYNAMICS Angtida Punyaponchai, Jetsadaporn Priyadumkol, Sommart Thongkom and Chakrit Suvanjumrat

g13292 VARIATIONAL ITERATION METHOD AND ANALYTIC SOLUTION FOR LAPLACE EQUATION FOR STEADY GROUNDWATER FLOW Dalal Adnan Maturi

## 1150-1250 Oral Session 20 Thursday, 16 November 2023

Chair: Dr. Ryan Ramirez

g13326, g13330, g13332, g13334, g13343, g13457

g13326 AT-SITE FLOOD FREQUENCY ANALYSIS OF BAN BANG LUANG STATION IN CHAO PHRAYA RIVER BASIN

Christabel Jane P. Rubio, Florence Rossette S. Dimagiba, Kate Andrei B. Salamat, Karl Richard M. Sorongon and John William C. Vedeja

g13330 REDOX REACTION MECHANISMS OF REDUCING SUGARS CONSIDERED FROM THE VIEWPOINT OF DIFFERENCES IN MOLECULAR STRUCTURES

Yoko Sakakihara, Tsuyoshi Kobayashi, Tomoko Takashita, Shinichiro Okazaki, Tomohiko Ishii and Hidenori Yoshida

1150-1250

g13332 STUDY ON THE EFFECT OF SILICA FUME AND SLAG CEMENT AS RCA ADDITION TO IMPROVE CONCRETE PROPERTIES STRENGTH BY USING SONREB NDT METHOD

Nota Praxticee Syaira, Fairuz khoirunisa, Indradi Wijatmiko and Christin Remayanti Nainggolan

g13334 GREENHOUSE GAS EMISSIONS FROM THAMMASAT UNIVERSITY (LAMPANG CAMPUS), THAII AND

Pantitcha Thanatrakolsri, Lalin Lektua and Daranphon Buasamli

g13343 INVESTIGATION OF SPATIAL AND TEMPORAL VARIABILITY OF SOIL MOISTURE AND ITS EFFECT OF VEGETATION AND SNOW COVER IN MONGOLIA BASED ON FIELD MEASUREMENT AND SATELLITE DATA

Nozomu Hirose, Jun Asamuna, Ichirow Kaihotsu and Kentaro Aida

g13457 ENHANCING SOIL STABILITY AND GEOTECHNICAL PROPERTIES OF SUBGRADE LAYERS USING RICE HUSK ASH: A SUSTAINABLE APPROACH FOR GROUND IMPROVEMENT

Abdelmageed Atef Abdelmageed Shehata, Md. Yachin Islam, Alex Otieno Owino, Md. Aminul Islam, Md. Soybur Rahman and Zakaria Hossain

#### 1150-1250 ZOOM 3 Oral & Poster Session Thursday, 16 November 2023

Chair: Prof. Joe Robert PaulLucena

g13345, g13379, g13380, g13382, g13399, g13413, g13438

g13345 EVALUATION OF SABO DAM PERFORMANCE FRO DEBRIS FLOW PREVENTION: VERTICAL AND INCLINED FORM

1150-1250

Gaoyuan Lyu, Akihiko Hirooka and Hajime Kiyokuni

g13379 THE EFFECT OF TOLL ROAD CHARACTERISTICS ON ACCIDENT RATE IN INDONESIA: A MODELLING STUDY

Kristianto, Carunia Mulya Firdausy and Najid

g13380 GIS AND REMOTE SENSING INTEGRATION FOR SOIL EROSION ASSESSMENT BASED ON A RUSLE MODEL IN UPNM CATCHMENT

Zuliziana Suif, Jestin Jelani, Nordila Ahmad, Maidiana Othman, Wan Mohamed Syafuan Wan Mohamed Sabri and Syakir Ikmal Mahazir

g13382 GEOTECHNICAL INVESTIGATION OF A LANDSLIDE INCIDENT IN KEMENSAH HEIGHT, MALAYSIA

Jestin Jelani, Muhammad Shafiq Soffian Abdul Rahman, Suriyadi Sojipto, Wan Mohamed Syafuan Wan Mohamed Sabri, Lee Min Lee and Nordila Ahmad

g13399 THE EFFECT OF GEOTECHNICAL PARAMETERS TO DETERMINE LANDSLIDE SUSCEPTIBILITY ASSESSMENT ALONG PADALARANG – PURWAKARTA HIGHWAY

Cahya Ahmad Gumilar

	g13413 EFFECT OF SHREDDED RUBBER TIRE AS PARTIAL REPLACEMENT FOR COARSE AGGREGATES IN FLY ASH-BASED PERVIOUS CONCRETE
1150-1250	Joanne Nicole Arac, Joaquin Bitong, Alden Justin Hao, Brennan Lorenz Tiu, Kenneth Jae Elevado and
	Cheryl Lyne C. Roxas
	g13438 MATRIX-BASED ANALYSIS AND SIMULATION OF A GLUBAM SPACE TRUSS WITH CARBON FIBER- REINFORCED COMPOSITE JOINT
	Joe Robert Paul G. Lucena, Aaron Paul I. Carabbacan, Franklyn F. Manggapis, Sanjie Dutt A. Kumar,
	Manuel M. Muhi and Orlean G. Dela Cruz
1250-1350	Lunch
	1350-1450 Oral Session 21 Thursday, 16 November 2023
	Chair: Prof. Cielo Frianeza
	g13362, g13370, g13375, g13378, g13384, g13387
	g13362 INTEGRATED SPATIAL RISK ASSESSMENT FROM ATMOSPHERIC INVERSION OVER THE DEEP OPEN PIT COAL MINE
	Komsoon Somprasong, Panlop Hattagosol, Thanyalak Inta and Mongkolchai Assawadithalerd
	g13370 APPLICATION OF ARTIFICIAL NEURAL NETWORK TO EVALUATE THE FINE-BLANKED EDGE QUALITY OF A ROLLED STEEL SHEET
1350-1450	Thanyaphon Nakkhlai, Watcharapong Chookaew and Chakrit Suvanjumrat
1550 1450	g13375 MODELLING OF FLOW AND SCOUR AROUND THE PIERS WITH DIFFERENT GEOMETRIC SHAPES
	Dhemi Harlan, Ilmiadin Rasyid, Joko Nugroho, Mohammad Bagus Adityawan and Dantje Kardana Natakusumah
	g13378 MODELLING OF CARBON STOCKS OF EUCALYPTUS PLANTATIONS USING WORLDVIEW-2 IMAGERY IN SABAH, MALAYSIA Ahmad Farid Mohsin and Mohd Nazip Suratman
	g13384 REPRODUCTION OF HISTORICAL ROAD MAPS ON THE KUMANO KODO USING GEOGRAPHIC INFORMATION, DISASTER PREVENTION, AND USE OF SPRING WATER Masanobu Taniguchi
	g13387 APPLICATION OF BIOPOLYMER FOR SOIL IMPROVEMENT: LABORATORY AND FIELD EXPERIENCE
	Ivan Gratchev, Pouyan Bagheri and Jun Sugawara
	1350-1450 Oral Session 22 Thursday, 16 November 2023
1350-1450	Chair: Prof. Radim Cajka
	g13392, g13398, g13411, g13430, g13431, g13331
	g13392 DEVELOPMENT OF UAV-BASED EMPIRICAL FORMULA FOR NDVI'S ESTIMATION IN THE MAEMOH MINE, LAMPANG, THAILAND Thitinan Hutayanon and Komsoon Somprasong
	g13398 SPATIAL ANALYSIS OF ENVIRONMENTAL FACTORS FOR SUSTAINABLE RECREATIONAL BUSINESS DISTRICT DEVELOPMENT IN KUTA BEACH, CENTRAL LOMBOK REGENCY Dewi Susiloningtyas, Andini Dwi Khairunnisa Daulay, Abinawanto, Annisa Azzahara and Bintang Mahakarya Sembahen

g13411 HIGH EFFICIENCY REMOVAL METHOD OF RADIOACTIVE CESIUM FROM THE SLUDGE BY USING PURIFICATION SYSTEM OF CIRCULATION TYPE WITH CONSIDERATION OF THE VOLUME REDUCTION OF ADDED SUBSTANCE

Tomoe Komoriya, Kyoichi Okamoto and Takeshi Toyama

g13430 PARTIAL REPLACEMENT OF FINE AGGREGATE IN CONCRETE WITH A COMBINED MIX OF WASTE GLASS & STEEL SLAG

Samudra Jayasekera

g13431 DESIGN AND EVALUATION OF VERTICAL EVACUATION BUILDING AT KELUMBAYAN USING TSUNAMI MODELLING

Dyah Kusumastuti, Hanan Fadhilah Ramadhani and Mohammad Bagus Adityawan

g13331 DEVELOPMENT OF SURFACE SETTLEMENT OF TWIN TUNNELS UNDER THE INFLUENCE OF THE RIVER

1350-1450

Liang Jiaxin, Tang Xiaowu, Wang Tianqi, Lin Weikang, Li Keyi and Xiang Qingqing

## 1350-1450 ZOOM 4 Oral & Poster Session Thursday, 16 November 2023

Chair: Dr. Nurmunira Muhammad

g13425, g13427, g13428, g13442, g13325, g13447, g13153

g13425 TSUNAMI VULNERABILITY AMONG BUILDINGS IN RIKUZENTAKATA CITY: CASE STUDY OF THE 2011 TSUNAMI DISASTER IN JAPAN

Mohd Muhaimin Ridwan Wong, Nordila Ahmad, Afiqah Amirah Ismail, Anawat Suppasri and Syamsidik

g13427 TEMPORAL DEVELOPMENT OF SCOUR AROUND WIDE PIERS Nordila Ahmad, Zuliziana Suif, Jestin Jelani and Maidiana Othman

g13428 ASSESSMENT OF WASTE CHARACTERISTICS AND POTENTIAL RESOURCE RECOVERY AT THE PIYUNGAN LANDFILL IN YOGYAKARTA: A STUDY BASED ON LANDFILL AGE Kasam, Fajri Mulya Iresha, Hijrah Purnama Putra, Annisa Nur Lathifah and Ali Rahmat

g13442 SLOPE STABILITY ANALYSIS OF A SILICA SAND SLOPE MODEL SUBJECTED TO SURCHARGE LOAD

Aina Syahirah Ahmad Ishak, Jestin Jelani, Soon Yee Wong, Zuliziana Suif and Ahmad Loqman Ahmad Mazuki

1350-1450

g13325 IDENTIFICATION OF MICROPLASTICS IN THE HOUSEHOLD WELL AROUND INDUSTRIAL AREAS IN SLEMAN REGENCY, YOGYAKARTA, INDONESIA

Suphia Rahmawati, Vebi Anggelina, Ayu Sulistiawati, Elita Nurfitriani Sulistyo and Awaluddin Nurmiyanto

g13447 INFLUENCE OF IMMERSION WEATHERING ON THE MECHANICAL PROPERTIES OF rHDPE COMPOSITES REINFORCED BY BAMBOO FIBRES

Maidiana Othman, Nur Fadzilatulhuda Abd Halimee, Siti Khadijah Che Osmi, Nurul Ain Nor Azlam and Norakmar Ahmad Sabri

g13153 THE POTENTIAL APPLICATION OF FRUIT SCLEROMETER TO ESTIMATE UNDRAINED SHEAR STRENGTH OF BANGKOK CLAY
Sitthiphat Eua-apiwatch

## 1450-1550 Oral Session 23 Thursday, 16 November 2023

Chair: Prof. Michiko Masuda

g13348, g13452, g13453, g13454, g13455, g13460

g13348 EXPERIMENTAL MEASUREMENTS AND NUMERICAL VERIFICATION OF SOIL – FOUNDATION INTERACTION ON REAL STRUCTURES

Radim Cajka, Jana Vaskova, Zdenka Neuwirthova, Petr Mynarcik and Kamil Burkovic

g13452 IMPACT OF DISPLACEMENT BEHAVIOR AND THE GROUNDWATER CHANGE ON SLOPE FAILURE INITIATION DUE TO RAINFALL

Xin Qin, Masamitsu Fujimoto and Yoshifumi Satofuka

g13453 EFFECT OF TEMPERATURE AND SOLUTION PH ON CALCIUM CARBONATE PRECIPITATION AS BIO-BASED REPAIR MATERIAL IN CONCRETE

Prima Yane Putri, Isao Ujike, Nevy Sandra and Faisal Ashar

1450-1550

g13454 ZnO/g-C3N4 COMPOSITES FOR REMOVAL OF AQUEOUS ORANGE II SOLUTION VIA ADSORPTION AND PHOTODEGRADATION

Mahmudul Hassan Suhag, Aklima Khatun, Ikki Tateishi, Mai Furukawa, Hideyuki Katsumata and Satoshi Kaneco

g13455 PHOTOCATALYTIC METHANE PRODUCTION FROM ACETIC ACID UNDER VISIBLE LIGHT IRRADIATION

Monir Uzzaman, Ikki Tateishi, Mai Furukawa, Hideyuki Katsumata and Satoshi Kaneco

g13460 STABILIZING OF EXPANSIVE SOIL WITH AGRICULTURAL WASTE AGGREGATES: A CRITICAL REVIEW

Md. Aminul Islam, Md. Soybur Rahman, Abd Elmageed Atef, Md. Yachin Islam, Md. Mahabub Alam and Zakaria Hossain

## 1450-1550 Oral Session 24 Thursday, 16 November 2023

Chair: Dr. Zulfa Hanan Ashaari

g13441, g13369, g13368, g13459, g13458, g13461

g13441 COMPARISON OF STATIC AND DYNAMIC LOAD TESTING: A REVIEW Vincent Carl Cuajao, Abdollah Tabaroei and Orlean G. Dela Cruz

1450-1550

g13369 COLD-FORMED STEEL BUCKLING UNDER VARIOUS LOAD CONDITIONS: THE ROLE OF WEB STIFFENING, SCREW CONNECTION DESIGN, AND DESIGN PROCEDURE

Jhun M. Jacinto, Orlean G. Dela Cruz, Guillermo O. Bernabe and Ernie D. Tombado

g13368 TEXTILE-REINFORCED MORTARS (TRM): AN ECOLOGICALLY FRIENDLY RETROFITTING ALTERNATIVE FOR CONCRETE STRUCTURES

Aldrine Paul P Bornales and Orlean G. Dela Cruz

g13459 A COMPARISON OF THE FRICTIONAL RESISTANCE OF THE GROUND IN JAPAN AND BANGLADESH BY STABILANKA GEOTEXTILE

Md. Mahabub Alam, Md. Soybur Rahman, Zakaria Hossain, Abd Elmageed Atef, Md. Yachin Islam and Md. Aminul Islam

g13458 CRITICAL REVIEW ON UTILIZATION OF RIVER SLUDGE, RICE HUSK ASH, AND CEMENT: SUSTAINABILITY AND IMPLICATIONS

Md. Yachin Islam, Alex Otieno Owino, Abdelmageed Atef Abdelmageed Shehata, Md. Aminul Islam, Md. Soybur Rahman and Zakaria Hossain

	g13461 EFFECTS OF MUNICIPAL SOLID WASTES ON PHYSICO-CHEMICAL PROPERTIES ON SOIL
1450-1550	AROUND DUMPSITE AT MYMENSINGH, BANGLADESH Md. Soybur Rahman, Md. Mahabub Alam, Zakaria Hossain, Abd Elmageed Atef, Md. Yachin
	Islam, Md. Aminul Islam
	Day 2. Dayton Consists. There does 46 November 2022
	Day 3: Poster Session - Thursday, 16 November 2023  All online & onsite meeting times are in Japan time.
	0900-1250 Poster Session 2 Thursday, 16 November 2023
	Chair: Prof. Joe Robert PaulLucena (Poster hang at 0900~, remove at 1250) Q&A 1030
	g13174, g13175, g13208, g13219, g13229, g13279, g13289
	g13174 A NEW VIBRATION ACTUATOR CAPABLE OF COMBINED LINEAR AND ROTATIONAL MOTIONS Hiroyuki Yaguchi and Ryusei Sato
	g13175 ELECTROMAGNETIC-VIBRATION RESONANCE PUMP WITH HIGH EFFICIENCY AND FLOW RATE
	Hiroyuki Yaguchi and Takuya Watanabe
	g13208 INVESTIGATION OF STRESS BEHAVIOR IN EMBANKMENT DUE TO RAINFALL INFILTRATION Daiki Yamashita, Shin-ichi Kanazawa and Hayato Suzuki
0900-1250	g13219 STUDY ON COLLAPSE MECHANISM OF RIVER LEVEE DUE TO EXTERNAL WATER LEVEL FLUCTUATION Hayato Suzuki and Shin-ichi Kanazawa
	g13229 A COMPREHENSIVE STATISTICAL MODEL FOR WATER ENVIRONMENT RANKING BASED ON MULTIPLE ENVIRONMENTAL INDICATORS Shengping Zhang and Jie Qi
	g13279 EFFECTS OF DIFFERENT RAILWAY MANAGEMENT ON VEGETATION OF THE TRACKS Taizo Uchida, Masaaki Furuno, Hiroaki Furuno, Teruo Arase and Tetsuo Okano
	g13289 THE EFFECT OF CURING TIME ON SWELLING PRESSURE OF EXPANSIVE SOIL STABILIZED BY FLY ASH-BASED GEOPOLYMERS Moh. Muntaha, Taurina Suhardji and Yuyun Tajunnisa
	1300-1700 Poster Session 3 Thursday, 16 November 2023
	Chair: Dr. Kusno Kamil (Poster hang at 1300 ~, remove at 1700) Q&A 1630
	g13291, g13296, g13313, g13390, g13404, g13405, g13437
1300-1700	g13291 RESEARCH ON THE BEHAVIOR OF METRO TUNNEL SUB-RECTANGULAR CROSS SECTION IN HETEROGENEOUS SOIL CONDITION AT HANOI VK DANG, Augustin Bracco and NA DO
1000 1700	g13296 BASIC STUDY ON FROST HEAVE AND THAW BEHAVIOR OF PILES AND FOUNDATIONS USED IN PHOTOVOLTAIC POWER GENERATION FACILITIES
	Kenta Nakai, Dai Nakamura, Masashi Kajimoto, Yuki Minabe, Shunzo Kawajiri, Takanori Kadota and

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g13313 EFFECTIVESS OF PEANUT OIL AS A CORROSION INHIBITOR FOR MILD STEEL

Gabriel N. Malabag, Mariah Angelique S. Malabanan, Kaela B. Aningat, Alex Jean Marx Arcilla, Carl

Takayuki Kawaguchi

Tristan D. Gile and Kyra Kamille A. Toledo

g13390 A STUDY ON NEW WATER-BLOCKING METHOD APPLYING BENTONITE MIXED SOIL AND ITS PREDICTION OF INFILTRATION LINES Yuki Sakoda, Shushi Sato, Masayuki Mizuno and Peter Kaba	
g13404 DEVELOPMENT OF EXPERIMENTAL APPARATUS TO SIMULATE EARTHQUAKES, TSUNAMIS, AND RAINFALL ON SCALED MODEL OF GEOTECHNIAL STRUCTURE Shota Hayashizaki, Shunzo Kawajiri, Masahiro Kurokawa, Takayuki Kawaguchi, Dai Nakamura and Akinobu Ogasawara	
g13405 DEVELOPMENT OF COMPACT PULL-OUT TEST APPARATUS APPLICABLE TO X-RAY CT SCANNER	
Evan-seiya Asano, Akinobu Ogasawara, Shunzo Kawajiri, Shota Hayashizaki, Dai Nakamura and Takayuki Kawaguchi	
g13437 RAPID GIS-BASED FLOOD SUSCEPTIBILITY MODEL BASED ON REMOTE SENSING DATA IN THE UPPER OF SOLO RIVER WATERSHED Jumadi Jumadi, Umrotun Umrotun, Dewi Novita Sari, Steve Carver and Chintania A.T. Normantyo	
Afternoon Refreshments	
Journal Publications Guidance (Room Oral Session 5)	
Group Photo, Closure of Conference	
Day 4: Friday, 17 November 2023	
All online meeting times are in Japan time.	
Technical Tour	

## Access info-Tsu, Mie, Japan

## From Chubu International Airport (Centrair):

The nearest international airport to Mie, Tsu city venue hotel is Chubu International Airport (Centrair) (<a href="http://www.centrair.jp/en/">http://www.centrair.jp/en/</a>). From Centrair to Tsu city, it takes about 45 minutes via high speed ferry. There are 14 round trips per day, leaving Centrair on every hour from 7am to 10pm, and a one-way ticket costs 2500 yen to Tsu Nagisamachi Ferry Terminal. The Nagisamachi Marina website is: (<a href="http://www.nagisa.city.tsu.mie.jp/eng/index.html">http://www.nagisa.city.tsu.mie.jp/eng/index.html</a>)

## From Tsu Nagisamachi Ferry Terminal to Venue (Hotel Tsu Center Palace):

It takes 5 minutes by Taxi/bus (20mins by walk) from the Tsu Nagisamachi Ferry Terminal to <u>Hotel Tsu Center Palace</u>. For map and access details, please visit the conference website. https://www.rio-hotels.co.jp/tcp/

#### From Other Airports:

It is also possible to fly into Kansai International Airport in Osaka, or even Narita International Airport in Tokyo, but transferring to Mie will take time and require additional train fares etc. If possible please make sure your flight is to Chubu International Airport Centrair (Nagoya).

#### By Train:

From Nagoya city, it takes about 50 minutes by JR's "Kaisoku Mie" (JR Nagoya station to Tsu station), or by Kintetsu Limited Express (Kintetsu Nagoya station to Tsu station).

From Osaka city, it takes about 85 minutes by Kintetsu Limited Express from Kintetsu Nabma or Uehonmachi station to Tsu station.

## From Tsu station to Venue (Hotel Tsu Center Palace):

Once you have arrived at Tsu Train station via bus or train, the easiest way is to hail a cab "<u>Hotel Tsu Center Palace</u>", which takes about 5 minutes and costs about 1,000 yen. Alternatively, take a Bus to Mie Kaikan Mae. It is in front of Hotel Tsu Center Palace.

## From Kansai Airport: Limousine Bus to Uehonmachi:

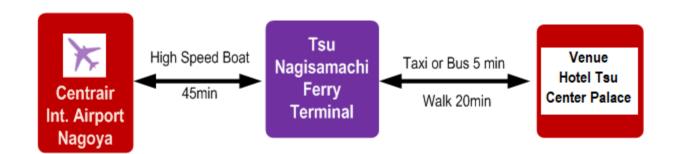
http://www.kansai-airport.or.jp/en/access/bus/index.html

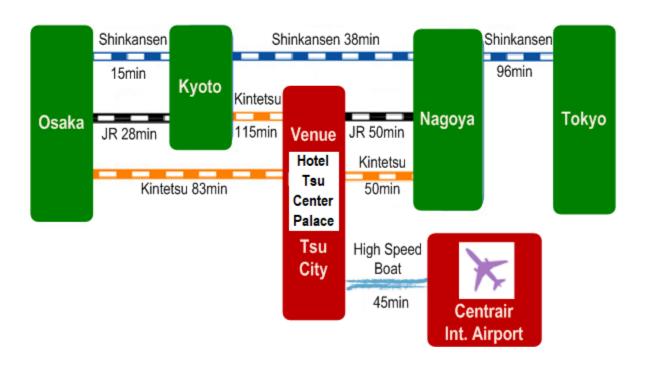
Access information is given in GEOMATE web page as follows: <a href="https://geomate.org/themesvenue.html">https://geomate.org/themesvenue.html</a>

## From Osaka to Mie Venue:

Take Kintetsu Train (Limited Express) at Uehonmachi Station, Get off at Tsu Station

## Access info-Tsu-Mie, Japan





## **General Information**

1) Are participants allowed to shuffle between Rooms A and B to attend different sessions throughout the day?

Ans: Yes

2) When do participants have to select which Room to attend? Is there a program booklet providing information on which topics will be held in each session?

Ans: Participants can attend any Room at any time during each session. Yes, topics are on the program details.

3) Each session is allocated 60 min, and there are 6 topics per session. Do the 10 minutes allocated to each speaker include Q&A?

Ans: Yes

4) Will there be a Q&A after each topic or a combined Q&A at the end of each session?

Ans: A combined Q&A will be held at the end of each session. The questioner should ask using the chat. They should write the ID for whom the question is intended.

5) Is it still necessary to prepare a poster?

Ans: It is up to the presenter's preference to present orally using ppt, word, pdf, or poster.

6) When is the deadline for submission of the oral presentation slides?

Ans: We will send a link and the deadline to all in a few days.

Work Flow:

To avoid interruption and confusion, the ZOOM Room will have one zoom ID for the whole day. Anyone can join and leave at any time.

The moderator/Host will control everything, including the guidance to the Session Chair. They will start/continue the session if any session chair is absent according to the program. If any presenter does not show up, the session will move to the next presenter. Early finishing is ok, but delaying is not acceptable.

The staff promises to maintain the non-stop ZOOM ROOM for the day. They always keep an eye to permit/allow the delegates to enter at any time. If any interruption occurs (unexpectedly), the host will create an emergency ZOOM ID and send it to all to start the program quickly.

# GEOMATE 2024 Pattaya, Thailand 13-15 November 2024

https://www.geomate2024.com/

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