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4TH ASIA PACIFIC MEETING ON

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2021

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GEOSCIENCE &
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30 NOVEMBER – 2 DECEMBER 2021 • ONLINE

PROGRAMME |

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Dr. Mohd Hariri Arifin	Universiti Kebangsaan Malaysia (UKM)
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Technical World company was established on January 2006; with head office located at TW Building, No. 25-27, Do Thua Tu Street, Tan Quy Ward, Tan Phu District, Ho Chi Minh City, Vietnam. We focused on construction consultancy services which are specialist for geotechnical investigation and monitoring, topographic survey, construction quality inspection, designing and project management for high-rise building construction, bridge and road construction, seaport-airport terminal, windfarm & renewable energy projects.

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Geoport Scientific Technical and Trade Ltd. was established in 1993. The main profile of the company is the production and sale of deep drilling geophysical devices, instruments and probes. For this, the forty years of production and development experience of the Hungarian State Eötvös Loránd Geophysical Institute in the field of geophysics are available, so we managed to maintain the high quality standard achieved in the production of borehole instruments during the 24 years of Geoport's operation.

GENERAL INFORMATION

Accessing The Virtual Portal

The conference will be using InEvent Portal. Delegates will receive the login credentials containing the portal URL and unique password which can only be used by registered delegates 4 days prior to the event. All attendees are advised to follow the event guidelines for optimal event experience.

Conference Abstracts

Digital abstracts will be made available on the virtual portal under each session and it will also be made available on EarthDoc.

EAGE Live Support

Should delegates face any issue during the event days, you may click on "Support" tab on the Virtual Lobby.

Photo and Video Regulations

EAGE strives to bring you the greatest and latest of scientific and technical advances. Due to the importance of the technical content, EAGE upholds a photography and videography policy, in an endeavor to protect these leading-edge technologies.

Photography and video/audio recording of any kind are strictly prohibited in the technical sessions.



EVENT HIGHLIGHTS

Monday, 29 November 2021

Workshop 1: Land Subsidence in the Me Kong Delta and other Deltaic Plains: Causes, Monitoring, Prediction and Impacts
0900 – 1225 hrs

Keynote Lecture



Dr. P.H. Giao

Vietnam's Association of Engineering Geology and Environment (VAEGE), Petroleum Vietnam University (PVU) & Vietnam Petroleum Institute (VPI)

"An Overview on Studies of Land Subsidence in the Southern Delta of Vietnam"

Invited Speakers



Dr. Laura Erban

US Environmental Protection Agency's Office of Research and Development

"Remotely Sensed Land Subsidence Rates (2006-2010) in the Mekong Delta Linked to Groundwater Extraction"



Dr. Philip S.J. Minderhoud

University of Wageningen, University of Padova, Deltares

"Modelling Mekong Delta Subsidence, Challenges and How to Improve Quantifications"



Dr. Tran Van Anh

Hanoi University of Mining and Geology (HUMG)

"Monitoring Subsidence in Ca Mau City and Vicinities using the Multi Temporal Sentinel-1 Radar Images"



Pham Van Hung

Division of Water Resources Planning and Investigation for the South of Vietnam, NAWAPI, MONRE

"Introduction on the Fresh Groundwater Resources in the Vietnamese Mekong Delta under Large Extraction Rates using a 3D Variable-Density Groundwater Model"

Workshop 2: Offshore Wind and other Renewable Energy Resources for Energy Transition
1400 – 1825 hrs

Keynote Lecture



Dr. Nguyen Dinh
Offshore Wind Consultants (OWC)
"Marine Spatial Planning and Development of National Offshore Wind Energy: Europe Experience"

Invited Speakers



Dr. Nguyen Huu Luong
Vietnam Petroleum Institute (VPI)
"Current Status of Hydrogen Production and Uses in PetroVietnam (PVN)"



Dr. Guillaume Sauvin
Norwegian Geotechnical Institute (NGI)
"Towards Data-Driven, Quantitative Ground Models: From Current Practice to State-of-the-Art"



Nguyen Tien Dung
FECON
"Construction of High-Rise Pile Cap Foundations for Nearshore Wind Turbines in Southern Vietnam: Some Experiences of FECON"



Jeroen Godtschalk
Blix Consultancy, The Netherlands
"The Challenges and Opportunities for Offshore Wind Soil Site Investigations"



Pham Quy Ngoc
Vietnam Petroleum Institute (VPI)
"Geodata for Offshore Wind Development in Vietnam"



Nguyen Duc Thanh
Technical World
"A Review for Geotechnical Investigation of Soft Clay at Nearshore Sites in the Mekong Delta for Windfarm Development"



Dr. Bui Viet Dung
Vietnam Petroleum Institute (VPI)
"Shallow Subsurface Geohazards on the South East Vietnam Shelf: Implications for Offshore Wind Farm Site Investigation"



Complimentary Short Course: From AEM Data to 3D Hydrogeological Conceptual Model
1100 - 1700 hrs (UTC+7)



Dr. Mats Lundh Gulbrandsen
I-GIS

Tuesday, 30 November 2021

Keynote 1
0930 – 1000 hrs

Dr. Robert Supper



Austrian Geological Survey
"New Frontiers in Geophysics in Connection with Climate Change Mitigation"

Keynote 2
1000 – 1030 hrs



Dr. Takao Aizawa
Suncoch Consultants Co., Ltd
"Thoughts on Application Manual of Geophysical Methods for Engineering and Environmental Problems- Sharing Japanese Experience with Asian Countries"

Wednesday, 1 December 2021

Keynote 3
0900 – 0930 hrs



Dr. M.H. Loke
Geotomo Software
"An Asian-Pacific Perspective on New Developments in the Geoelectrical Method"

Keynote 4
0930 – 1000 hrs



Prof. Dr. Andreas Weller
Clausthal University of Technology
"Permeability Prediction Based on Geoelectrical Parameters"

Thursday, 2 December 2021

Keynote 5
0900 - 0930 hrs



Prof. Dr. Yoichi Watabe
Hokkaido University
"Sedimentary History of Intertidal Flats
Evaluated by MASW"

Keynote 6
0930 - 1000 hrs



Dr. Nick Ramsey
FUGRO
"Optimising Geotechnical Engineering Models
by Integrating Geological, Geophysical and
Geotechnical Data"

Invited Speakers



Dr. Tada-nori Goto
University of Hyogo
"Resistivity Structures below Pre- and Post-
Landslide Slopes: A Case Study and the Future
Exploration"



Prof. Diego Arosio
*Università Degli Studi di Modena E
Reggio Emilia*
"Seismic Noise for Slope Stability"



Dr. Taeseo Ku
National University of Singapore
"Near-Surface Geophysics for Geotechnical
Site Investigation: Case Studies in Singapore"



Dr. Sanjay Rana
Parsan Overseas (P) Limited
"Subsurface Utility Engineering Detection
& Mapping of Subsurface Utilities"



Dr. Victor Mocanu
University of Bucharest
"Integrated Geophysical Investigations in a
Roman Archaeological Site: Resca (Romula), Olt
County, Romania"



Wolfgang Soyer
CGG
"3D Inversion Modeling of Controlled Source
EM in Complex Terrain"

Friday, 3 December 2021

1-Day TEM Method with Hands-on Exercises
1300 - 1700 hrs (UTC+7)



Toke SØltoft
Aarhus GeoSoftware

About the Instructor:

Toke has an MSc in Geophysics from Aarhus University (Denmark) and he is also an Electronics Engineer educated at Mercantec Technical College in Viborg (Denmark). He has worked at CSIRO, Perth (Australia) with airborne EM data, Engineers without borders as project manager on groundwater projects (Ghana), Avannaa in seismic field projects (Greenland), SkyTEM Surveys (Denmark) as field manager, and the HydroGeophysics Group from Geoscience, Aarhus University as geophysicist working with hardware development. Since 2015, Toke has been the Director of Aarhus GeoSoftware (Denmark) which is a software company developing software for processing, inversion and visualization of electromagnetic and electrical imaging data.

Course Description:

The purpose of the course is to provide the participants with an insight into the ideas and theories behind processing and inversion of TEM data and in principle how the instruments work. The focus will be on ground-based data, collected for geological (mineral exploration), hydrological, and geotechnical purposes. We will demonstrate how processing and inversion of TEM data is carried out in practice. For this, we use the software packages SPIA and Aarhus Workbench.



WORKSHOP PROGRAMME

29 November 2021

WORKSHOPS	
Workshop 1: Land Subsidence in the Me Kong Delta and other Deltaic Plains: Causes, Monitoring, Prediction and Impacts	
Moderators: P. H. Giao (PVU), P. Q. Nhan (Hanoi University of Natural Resources and Environment)	
09:00	Welcome Opening - D. Orłowski ^{1*} ¹ EAGE
09:05	Welcome and Keynote Address - P. M. Q. Binh ^{1*} ¹ PVU Rector
09:15	Keynote - An Overview on Studies of Land Subsidence in the Southern Delta of Vietnam - P. H. Giao ^{1,2,3*} ¹ Vietnam's Association of Engineering Geology and Environment (VAEGE), ² Petroleum Vietnam University (PVU), ³ Vietnam Petroleum Institute (VPI)
09:45	Remotely Sensed Land Subsidence Rates (2006-2010) in the Mekong Delta Linked to Groundwater Extraction - L. Erban ^{1*} ¹ US EPA
10:10	Joint Q&A
10:30	AM Break
10:50	Modelling Mekong Delta Subsidence, Challenges and How to Improve Quantifications - P. S. J. Minderhoud ^{1*} ¹ Wageningen University
11:15	Monitoring Subsidence in Ca Mau City and Vicinities using the Multi Temporal Sentinel-1 Radar Images - T. V. Anh ^{1*} ¹ Hanoi University of Mining and Geology
11:40	Introduction on the Fresh Groundwater Resources in the Vietnamese Mekong Delta Under Large Extraction Rates Using a 3D Variable-Density Groundwater Model - P. V. Hung ^{1*} ¹ NAWAPI, MONRE
12:05	Joint Q&A
12:25	End of Workshop 1
Workshop 2: Offshore Wind and other Renewable Energy Resources for Energy Transition	
Session Chairs: P. Q. Ngoc (VPI), K. D. Thong (HUMG)	
14:00	Marine Spatial Planning and Development of National Offshore Wind Energy Blueprint: Ireland Experience - D. V. Nguyen ^{1*} ¹ University College Cork
14:30	Current Status of Hydrogen Production and Uses in PetroVietnam (PVN) - H. L. Nguyen ^{1*} ¹ VPI
14:55	Towards Data-Driven, Quantitative Ground Models: From Current Practice to State-Of-The-Art - G. Sauvin ^{1*} ¹ Norwegian Geotechnical Institute
15:20	Construction of High-Rise Pile Cap Foundations for Nearshore Wind Turbines in Southern Vietnam: Some Experiences of FECON - T. D. Ngyuen ^{1*} ¹ FECON
15:45	Joint Q&A
16:05	PM Break
16:25	The Challenges and Opportunities for Offshore Wind Soil Site Investigations - J. Godtschalk ^{1*} ¹ BLIX Consultancy
16:50	Geodata for Offshore Wind Development in Vietnam - P. Q. Ngoc ^{1*} ¹ VPI
17:15	A Review for Geotechnical Investigation of Soft Clay at Nearshore Sites in the Mekong Delta for Windfarm Development - N.D. Thanh ^{1*} ¹ Technical World
17:40	Shallow Subsurface Geohazards on the South East Vietnam Shelf: Implications for Offshore Wind Farm Site Investigation - B. V. Dung ^{1*} ¹ VPI
18:05	Joint Q&A
18:25	End of Workshop 2



TECHNICAL PROGRAMME

Day 1 | 30 November 2021

ORAL PRESENTATIONS	
Welcome Remarks	
09:00	Opening Remarks - P. H. Giao ^{1,2,3*} ¹ Vietnam's Association of Engineering Geology and Environment (VAEGE), ² Petroleum Vietnam University (PVU), ³ Vietnam Petroleum Institute (VPI)
09:10	Welcome Note - L. C. Minh ^{1*} ¹ VAEGE
09:20	Welcome Note - D. Orłowski ^{1*} ¹ EAGE
Keynote Sessions Session Chairs: V. Mocanu (Bucharest University), P.H. Giao (VAEGE, PVU, VPI)	
09:30	Keynote 1: New Frontiers in Geophysics in Connection with Climate Change Mitigation - R. Supper ^{1*} ¹ Austrian Geological Survey
10:00	Keynote 2: Thoughts on Application Manual of Geophysical Methods for Engineering and Environmental Problems - Sharing Japanese Experience with Asian Countries - T. Aizawa ^{1*} ¹ Suncoch Consultants Co. Ltd.
10:30	AM Break
Technical Sessions	
TRACK A: INTEGRATED GEOTECHNICAL AND GEOPHYSICAL ENGINEERING	TRACK B: NATURAL RESOURCES EXPLORATION
Session A1: Investigation of Man-made and Natural Hazards Session Chairs: K.Hayashi (Geometric Inc.), N.Q. Dinh (VIGMR)	Session B1: Petroleum and Energy Resources Exploration and Engineering Session Chair: D.H. Hien (Vietnam Association of Geophysicists (VAG))
10:50	10:50
Invited: Resistivity Structures below Pre- and Post-Landslide Slopes: A Case Study and the Future Exploration - T. Goto ^{1*} ¹ University of Hyogo	59. RPT Constructed by Stiff Sand and Adapted Stiff Sand Models for Characterization of a Gas Sand - P.H. Giao ¹ , P.H. Trang ^{1,2*} , D.H. Hien ¹ , P.Q. Ngoc ¹ , K.D. Thong ³ ¹ Vietnam Petroleum Institute; ² Institute of Geological Sciences, Vietnam Academy of Science and Technology (VAST); ³ Hanoi University of Mining and Geology
11:10	11:10
48. Vs30 Site Characterization of Chiang Rai Province, Northern Thailand - P. Pananont ^{1*} , K. Hayashi ² , K. Furlong ³ , K. Prasertwongphilai ¹ ¹ Kasetsart University; ² Geometric Inc.; ³ Pennsylvania State University	36. Porosity Evaluation Based on Epithermal Neutron Cross Section from Pulsed Neutron Logging - X. Fu ^{1*} , W. Wu ¹ , H. Wang ² , Y. Ge ² ¹ China University Of Petroleum, Beijing; ² China Petroleum Logging CO., Ltd.
11:30	11:30
69. Developing and Testing a Software for Search and Rescue in Rubble Piles Based on Microseismic Signals - V. Villacci ^{1*} , A. Hojat ^{2,1} , L. Zanzi ¹ ¹ Politecnico Di Milano; ² Shahid Bahonar University of Kerman	45. Short Results of the Research on Micromechanics of Sand Production - A. Shabdirova ^{1*} , A. Kozhagulova ¹ , F. Khamitov ¹ , N. Minh ² , Y. Zhao ¹ ¹ Nazarbayev University; ² Fulbright University Vietnam
11:50	11:50
Joint Q&A	Joint Q&A
12:10	
Demo Session	
12:40	
Lunch Break	

Day 1 | 30 November 2021

Poster Presentation 1 - Landslide	
Session Chair: J. Sugawara (Department Of Transport And Main Roads)	
14:00	66. Laboratory Experience on Landslide Dam Failure using ERT Monitoring - E. Zadehali ^{1*} , K. Tavakoli ¹ ¹ Politecnico di Milano, Lecco Campus
14:15	51. The Effect of the Normalized Difference Vegetation Index to Landslide Susceptibility using Optical Imagery Sentinel 2 and Landsat 8 - L. Doan Viet ^{1*} , C. Nguyen Chi ¹ , C. Nguyen Tien ² , D. Nguyen Quoc ³ ¹ The University Of Danang, University Of Science And Technology; ² Phenikaa University; ³ Vietnam Institute of Geosciences and Mineral Resources
14:30	52. Predicting Landslide Spatial Probability in Quang Ngai, Vietnam using Deep Learning Technique - V. Nguyen Ba Quang ¹ , L. Doan Viet ^{2*} , C. Nguyen Chi ² , P. Vo Nguyen Duc ² , B. Nguyen Quang ² ¹ International University-Vietnam National University Ho Chi Minh City; ² The University of Danang, University of Science and Technology
14:45	PM Break
Technical Sessions	
Session A2: Passive Seismic and Microtremor Session Chair: C. Lin (National Yang Ming Chiao Tung University)	Session B2: Energy Resources Exploration and Engineering Session Chairs: P. Amatyakul (Mahidol University), M.H. Arifin (Universiti Kebangsaan Malaysia)
15:00	Invited: Seismic Noise for Slope Stability - D. Arosio ^{1*} ¹ University of Modena and Reggio Emilia
15:20	20. Three-Dimensional Velocity Model of Napa obtained from Microtremor Array Measurements and Horizontal to Vertical Spectral Ratio - K. Hayashi ^{1*} , S. Burns ¹ , C. Roughley ² ¹ Geometrics, Inc.; ² Napa Valley College
15:40	26. Geotechnical Engineering Applications using 2D Ambient Noise Tomography in Singapore - Y.S. Seik ^{1*} , K. Hayashi ² ¹ Pacific Geoscience (S) Pte. Ltd.; ² Geometrics, Inc.
16:00	53. Predicting N-Value from Shear Wave Velocity: Nonlinear Curve Fitting Analysis - Hisyam Jusof ¹ , Muhammad Azrief Azahar ^{2*} , Mubarak A. Wahab ³ , Nur Zulfa Abdul Kalid ² , Muhammad Noor Hazwan Jusof ⁴ ¹ Geo TriTech; ² Geoventure Solutions Sdn Bhd; ³ Civil and Environmental Engineering Department, Faculty of Engineering, Universiti Teknologi PETRONAS; ⁴ Department of Civil & Construction Engineering, Faculty of Engineering & Science, Curtin University
16:20	Joint Q&A
16:40	PM Break
Poster Presentation 2 - Application of Seismic, GPR, MT	
Session Chair: L. Zanzi (Politecnico Di Milano)	
17:00	31. Application of Energy Difference Properties by Velocity Spectrum Transformation Method in Ground Penetrating Radar: A Case Study in Vietnam - D. Dang Hoang ^{1,2*} , C. Le Van Anh ^{1,2} ¹ University of Science; ² Vietnam National University
17:15	28. Optimal Design for Expanding a Microseismic Monitoring Network on an Unstable Rock Face in Northern Italy - Z. Zhang ^{1*} , D. Arosio ² , A. Hojat ^{3,4} , L. Zanzi ³ ¹ Liaoning Technical University; ² Università di Modena e Reggio Emilia; ³ Politecnico di Milano; ⁴ Shahid Bahonar University of Kerman
17:30	40. A Comparison of WAL Rotational Invariants and GB Decomposition Method for Magnetotelluric Data Analysis, Synthetic Studies - M. Montahaei ^{1*} ¹ Institute Of Geophysics, University Of Tehran
17:45	17. Detection of Voids Under the Dam Embankment Concrete Slabs using Elastic Standing Waves - Y. Kolesnikov ¹ , K. Fedin ^{1*} , L. Ngomayezwe ² ¹ Trofimuk Institute of Petroleum Geology & Geophysics SB RAS; ² Scientific and Industrial Research and Development Centre

Day 2 | 1 December 2021

ORAL PRESENTATIONS	
Keynote Sessions	
Session Chair: A. Hojat (Shahid Bahonar University of Kerman & Politecnico Di Milano)	
09:00	Keynote 3: An Asian-Pacific Perspective on New Developments in the Geoelectrical Method - M. H. Loke ^{1*} ¹ Geotomo Software
09:30	Keynote 4: Permeability Prediction based on Geoelectrical Parameters - A. Weller ^{1*} ¹ Clausthal University of Technology
10:00	AM Break
Technical Session	
TRACK A: INTEGRATED GEOTECHNICAL AND GEOPHYSICAL ENGINEERING	
Session A3: Electric Session Chairs: P. Amatyakul (Mahidol University), H. F. Sun (Shandong University)	
10:20	21. The Use of a Semi-Structured Finite-Element Mesh in 3-D Resistivity Inversion - M.H. Loke ^{1*} , P.B. Wilkinson ² , O. Kuras ² ¹ Geotomo Software Sdn Bhd; ² British Geological Survey
10:40	37. Constrained Inversion Applied to a 2D Resistivity Model of Shallow Sedimentary Basins in Central Zagros, Iran - M. Montahaei ^{1*} ¹ Institute Of Geophysics, University Of Tehran
11:00	70. Correcting the Effect of the Soil Covering Buried Electrodes for Permanent Electrical Resistivity Tomography Monitoring Systems - A. Hojat ^{1,2*} , G. Tresoldi ³ , L. Zanzi ² ¹ Department of Mining Engineering, Shahid Bahonar University of Kerman; ² Dipartimento di Ingegneria Civile e Ambientale, Politecnico di Milano; ³ LSI Lastem
11:20	Joint Q&A
11:40	Demo Session
TRACK B: NATURAL RESOURCES EXPLORATION, DEEP GEOPHYSICS	
Session B3: Water Resources Exploration and Engineering Session Chairs: M.H. Arifin (Universiti Kebangsaan Malaysia), A. Puttiwongrak (Asian Institute of Technology)	
10:20	44. Using Borehole Logging to Determine the Liquid-Phase Efficient Diffusion Coefficient - Q.N. Pham ^{1*} , T.L. TRAN ² , F. Larsen ³ ¹ Hanoi University of Natural Resources and Environment (HUNRE); ² Hanoi University of Science (HUS); ³ Geological Survey of Denmark and Greenland (GEUS)
10:40	13. Coupled Simulation of Groundwater Flow and Contaminant Transport Models: A Dispersion of Contaminations Along Bang-Yai, Phuket - A. Ranasinghe ^{1*} , A. Puttiwongrak ² ¹ Geotechnical and Earth Resources Engineering, Asian Institute of Technology; ² Faculty of Geotechnical and Earth Resources Engineering, Asian Institute of Technology
11:00	11. Groundwater Potential Assessment using Geoelectrical Data: A Case Study of Phuket Island, Thailand - S. Vann ^{1*} , A. Puttiwongrak ² , R. Men ³ , T. Suteerasak ⁴ ¹ Faculty of Technology and Environment, Prince of Songkla University; ² Geotechnical and Earth Resources Engineering, Asian Institute of Technology; ³ Faculty of Technology and Environment, Prince of Songkla University; ⁴ Faculty of Technology and Environment, Prince of Songkla University
11:20	Joint Q&A
Poster Presentation 3 - Application of Electric Resistivity Surveys Session Chair: P. Amatyakul (Mahidol University)	
12:10	34. 3D Image of Weathering Layer in Cumga Area, Dak Lak from 2D Electrical Resistivity Tomography Data - P. N. Dat ¹ , P. N. Kien ^{1,3*} , K.D. Thong ¹ , L. H. Phong ² , S. M. Lee ³ ¹ Hanoi University of Mining and Geology, ² Institute of Geological Sciences, ³ Seoul National University
12:25	56. Comparison of Adaptive Gradient Descent Optimization Algorithms for Estimating Wavenumbers K in 2.5D Electrical Resistivity Modeling - U. Mishra ^{1*} , A. Bansal ¹ , A. Mandal ¹ ¹ Indian Institute of Technology Kanpur
12:40	Lunch Break

Day 2 | 1 December 2021

Technical Session	
Session A4: Urban Geophysics (1) Session Chairs: K. D. Thong (Hanoi University of Mining and Geology); K. Hayashi (Geometrics Inc.)	
14:00 Invited: Near-surface Geophysics for Geotechnical Site Investigation: Case Studies in Singapore - T. Ku^{1*} ¹ NUS	14:00 16. Practical Use of Numerical Modelling in Underground Mining - N.V. Hoang^{1*}, P. Bogumita², N.Q. Dinh¹, T. Trung Vo³ ¹ Vietnam Institute of Geosciences and Mineral Resources; ² Wroclaw University of Science and Technology; ³ Bridge and Road Department, Danang Architecture University
14:20 58. Adapting Geo-Electric Imaging for Control and Evaluation of Underground Construction - C. Lin^{1*} ¹ National Yang Ming Chiao Tung University	14:20 18. Modeling of the Bouguer Gravity Anomalies for Mineral Prospection - J.S. Kayode¹, M.H. Arifin^{2*}, A. Omar³, N. Sulaiman², A. Dzulkifli², A. Hussien², A. Azmi² ¹ Universiti Sains Malaysia; ² Universiti Kebangsaan Malaysia.; ³ Minerals and Geoscience Department
14:40 10. Detailed Geophysical Mapping to Support Urban Planning in Nørrestrand, Horsens Denmark - T.R. Andersen^{1*} ¹ VIA University College	14:40 38. Application of GIS-AI for Detecting Geological Structure and Prospective Zoning of Mineral Resources in Vanyen Area - S. DOAN^{1*} ¹ PVU
15:00 Joint Q&A	15:00 Joint Q&A
15:20 PM Break	
Poster Presentation 4 - Petroleum and Energy Resources Exploration	
Session Chair: N. H. Minh (Fulbright University)	
15:40 61. Sedimentary Facies Interpretation of Middle Miocene Sediments in TM Structure - P.B. Ngoc^{1*}, H.T. Long¹, T. Nghi², T.T. Dong³, T.T. Anh⁴, P.T.T. Hang⁵ ¹ Petrovietnam University; ² Institute for Geo-Environmental Research and Adaptation of Climate Change; ³ Science Research & Engineering Institute, Vietsovpetro; ⁴ Vietnam Petroleum Institute; ⁵ Institute of Marine Geology and Geophysics, Vietnam Academy of Science and Technology	
15:55 12. Compaction Model for Shale in Differences of Geological Ages Using 3D Empirical Relationship in Northeastern Thailand - S. Nufus^{1*}, A. Puttiwongrak², C. Bunprasert², P.H. Giao³, T. Suteerasak¹, S. Vann⁴ ¹ Faculty of Technology and Environment, Prince of Songkla University Phuket Campus; ² Geotechnical and Earth Resources Engineering, Asian Institute of Technology; ³ Vietnam Petroleum Institute; ⁴ Andaman Environment and Natural Disaster Research Center, Prince of Songkla University Phuket Campus	
16:10 5. Multistage Test Procedure for Determining Residual Strength of Soil in the Ring Shear Test - D. Nguyen Thanh^{1*}, M. Suzuki² ¹ Ha Noi University of Mining and Geology; ² Yamaguchi University	
16:25 A Comparative Study on the Applicabilty of CPTu-based Soil Classification Offshore Test Sites - P. S. Khin^{1*} ¹ VNU Vietnam Japan University	



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ORAL PRESENTATIONS	
Keynote Sessions	
Session Chairs: K. Hayashi (Geometrics Inc.), J. Sugawara (Department of Transport and Main Roads)	
09:00	Keynote 5: Sedimentary History of Intertidal Flats Evaluated by MASW - Y. Watabe ^{1*} ¹ Hokkaido University
09:30	Keynote 6: Optimising Geotechnical Engineering Models by Integrating Geological, Geophysical and Geotechnical Data - N. Ramsey ^{1*} ¹ FUGRO
10:00	AM Break
Technical Session	
TRACK A: INTEGRATED GEOTECHNICAL AND GEOPHYSICAL ENGINEERING	TRACK B: NATURAL RESOURCES EXPLORATION, DEEP GEOPHYSICS
Session A5: Urban Geophysics (2) Session Chairs: K. D. Thong (Hanoi University of Mining and Geology), N. T. Dung (FECON)	Session B5: AI & ML in Geophysics Session Chairs: M.H. Arifin (Universiti Kebangsaan Malaysia), A. Puffiwongrak (Asian Institute of Technology)
10:20	Invited: Subsurface Utility Engineering Detection & Mapping of Subsurface Utilities - S. Rana ^{1*} ¹ Parsan Overseas
10:40	Invited: Integrated Geophysical Investigations in a Roman Archaeological Site: Re ca (Romula), Olt County, Romania - V. Mocanu ^{1*} ¹ Buchrest University
11:00	24. Assessment of the Influence of Traffic Induced Vibration on the Stability of the Sentinel - J. Sugawara ^{1*} , K. Suto ² , R. Moniaga ³ , J. Rowe ¹ , J. Smith ¹ ¹ Department Of Transport And Main Roads; ² Terra Geophysica Australis; ³ Geotesta
11:20	Joint Q&A
12:00	Demo Session
Poster Presentation 5 - Geophysical Modeling and Inversions Session Chair: P. Amatyakul (Mahidol University)	
12:30	25. Reflection of Compression Waves from Rough Water–Solid Boundaries (Physical Modeling) - Y. Kolesnikov ¹ , K. Fedin ^{1*} , R. Beisembaev ¹ , L. Ngomayezwe ² , G. Dugarov ¹ ¹ Trofimuk Institute of Petroleum Geology & Geophysics SB RAS; ² Scientific and Industrial Research and Development Centre
12:45	49. Single Parameter Full Waveform Inversion in Poroelastic Media using Damped-Inertia-Coefficient PSO - A. Sen ^{1*} , P. Chakraborty ¹ , D. Ghosal ¹ ¹ Indian Institute of Technology Kanpur
13:00	Lunch Break
10:20	46. An Attempt to Detect Events by Deep Learning on 3D GPR Data - R. Tottori ^{1*} , Y. Ito ¹ , H. Azuma ¹ , Y. Oda ¹ , T. Matsuoka ² ¹ Tokyo Metropolitan University; ² Fukada Geological Institute
10:40	71 ML-based analysis of fracture porosity using Genetic Algorithm (GA) for a shallow fractured igneous HC reservoir - P.T. Munasinghe ^{1*} , P.H. Giao ² ¹ Asian Institute of Technology (AIT); ² Vietnam Petroleum Institute (VPI)
11:00	57. Fuzzy C-Mean Clustering and Joint Inversion of Well Log Data for Porosity Prediction - D.T. Kieu ^{1*} , N. Pham Quy ² , M. Ha Quang ³ , G. Pham Huy ² , H. Doan Huy ² , D. Bui Viet ² , T. Pham Hong ² ¹ Hanoi University of Mining and Geology; ² Vietnam Petroleum Institute, Hanoi, Vietnam; ³ PetroVietnam Exploration Production Corporation - PVEP, Vietnam
11:20	68. Electrical Resistivity Tomography Image Enhancement using Autoencoder Neural Network with Synthetic Data Validation - K. Phueakim ^{1*} , P. Amatyakul ^{1,2} ¹ Department of Physics, Faculty of Science, Mahidol University; ² Thailand Center of Excellence in Physics, Ministry of Higher Education, Science, Research and Innovation
11:40	Joint Q&A

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Technical Session			
Session A6: Land Subsidence, Groundwater Pumping, Aquifer Salinization Session Chairs: N.Q. Dinh (VIGMR) & P.H. Giao (PVU)		Session B6: Geophysical Modeling and Inversion Session Chairs: P. Amatyakul (Mahidol University), A. Hojat (Politecnico Di Milano & Shahid Bahonar University of Kerman)	
14:00	67. Land Subsidence of Yangon Plain: An Overview and Preliminary Results of Consolidation Analysis - L.M. Ko Ko ^{1*} , P.H. Giao ² ¹ Asian Institute of Technology (AIT); ² PetroVietnam University (PVU)	14:00	Invited: 3D Inversion Modeling of Controlled Source EM in Complex Terrain - W.Soyer ¹ ¹ CGG
14:20	43. Mekong Delta Subsidence from Space by Radar Interferometry - D. HO TONG MINH ^{1*} ¹ INRAE	14:20	19. Inversion of 3-D Vector Arrays Geoelectrical Data Sets using Amplitude and Direction Components - M.H. Loke ^{1*} , J. Gance ² , P.B. Wilkinson ³ , J. Malet ⁴ , C. Truffert ² , O. Leite ² ¹ Geotomo Software Sdn Bhd; ² IRIS Instruments; ³ British Geological Survey; ⁴ EOST-IPES
14:40	54. Identification of Saline Groundwater Distribution in Coastal Aquifers: A Study in Ca Mau Peninsula, Mekong Delta - Q.K. Ha ^{1,2*} , Q.N. Pham ³ , L.P. Vo ^{1,2} , T.L. Tran ³ , T.T. Ta ³ , V.C. Doan ⁴ , H.G. Pham ⁵ ¹ Faculty of Environment and Natural Resources, Ho Chi Minh City University of Technology (HCMUT); ² Vietnam National University; ³ Hanoi University of Natural Resources & Environment; ⁴ Vietnam Association of Hydrogeologists (VAH); ⁵ PetroVietnam University (PVU)	14:40	62. Joint Seismic Refraction and Reflection Tomography - D.H. Hien ^{1*} , P.H. Giao ¹ , K.D. Thong ² ¹ Vietnam Petroleum Institute; ² Hanoi University of Mining and Geology
		15:00	72. Inversion of Synthetic and Measured 3D Geoelectrical Data to Study the Geomembrane below a Landfill - A. Aguzzoli ^{1*} , A. Fumagalli ² , A. Scotti ² , L. Zanzi ³ , D. Arosio ¹ ¹ Dipartimento di Scienze Chimiche e Geologiche, Università Degli Studi di Modena E Reggio Emilia; ² Dipartimento di Matematica, Politecnico di Milano; ³ Dipartimento di Ingegneria Civile e Ambientale, Politecnico di Milano
		15:20	65. Application of Simulated Annealing in Seismic Inversion: A Case Study from the Blackfoot Field, Canada - R. . ^{1*} , S.P. Maurya ¹ , A.K. Pandey ¹ ¹ Dept. of Geophysics, Banaras Hindu University
15:00	Joint Q&A	15:40	Joint Q&A
16:00	Closing Remarks - P. H. Giao ^{1*} , C. Lin ^{2*} ¹ PVU; ² National Yang Ming Chiao Tung University		

End of Conference



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