The 8th International Conference on Geotechnical and Transportation Engineering

GEOTROPICA 2010

"Sustainability in Geotechnical and Transportation Engineering"

1-3 December 2010 | SUTERA HARBOUR, SABAH, MALAYSIA

Organizer

UtM

Research University
Faculty of Civil Engineering
School of Professional and Continuing Education
Universiti Teknologi Malaysia

Supported by

Minerals and Geoscience Department Malaysia
Sabah State Government
Construction Industry Development Board
The Institution of Engineers, Malaysia
Public Works Department, Malaysia
Tourism Malaysia
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KEYNOTE

SPEAKERS

Prof. Dr. Adrian F.L. Hyde
University of Sheffield
Title: Sustainable Ground Engineering

Assoc. Prof. Dr. Johnnie Ben Edigbe
Universiti Teknologi Malaysia
Title: Trends in Transportation Engineering

INVITED

SPEAKERS

Dato' Prof. Ir. Dr. Azmi Hassan,
Highway Planning Unit, Ministry of Works Malaysia.
Title: Highway Planning in Malaysia

Prof. Dr. Kazuya Yasuhara,
Ibaraki University
Title: Geotechnical Technique Compatible for Reduction of Environmental Impact and Natural Disaster

Prof. Dr. Kenichi Soga,
University of Cambridge.
Title: Slope Monitoring Using Optical Fibre Technology

Prof. Dr. Hamid R. Soleymani,
University of Alberta
Title: Characterization of Subgrade and Urbound Granular Material for Flexible Pavements: Evolutions and Future Challenges

Dr. Che Hassandi Abdullah,
Public Works Department, Malaysia
Title: Sustainable Development in Geotechnical Engineering in Public Works Department, Malaysia.

Mr. Zakaria Mohamad,
Minreals and Geoscience Department Malaysia (Selangor/Fed. Territory)
Title: Geomorphological Approach to Study the Potential Debris Flow in Hulu Kelang Area.
Title: Geological Perspective of Site Investigation in Malaysia.

Mr. Zamri Ramli,
Minreals and Geoscience Department Malaysia (Sabah)
Title: The Importance of Geological Input for Land-Use Planning: “Case Study of Ranau Area, Sabah”.
# THE PROGRAMME

## DAY 1 - 01st December 2010 (Wednesday)

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<tr>
<td>8.00 am - 9.00 am</td>
<td>Arrival and Registration of Participants</td>
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<td>9.00 am - 9.45 am</td>
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<td>Venue: Grand Ballroom</td>
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<td>Arrival of the Vice Chancellor of Universiti Teknologi Malaysia (UTM)</td>
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<td>Arrival of the Chief Minister of Sabah</td>
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<td>Recital of Doa</td>
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<td>Welcoming Speech by the Chairman of Conference</td>
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<td>Y.Bhg. Prof. Dr. Aminaton Maro</td>
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<td>Speech by the Vice Chancellor of UTM</td>
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<td>Y.Bhg Dato' Prof Ir. Dr. Zaini bin Ujang</td>
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<td>Officiating Speech by the Chief Minister of Sabah</td>
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<td>Y'Amat Berhormat Datuk Seri Panglima Musa Haji Aman</td>
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<td>Press Conference</td>
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<td>9.45 am - 10.30 am</td>
<td>Refreshment</td>
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## KEYNOTE ADDRESS

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<th>Time</th>
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<tr>
<td>10.30 am - 11.10 am</td>
<td><strong>Keynote Address I</strong></td>
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<tr>
<td></td>
<td>Prof. Dr. Adrian F.L. Hyde</td>
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<tr>
<td></td>
<td>Title: Sustainable Ground Engineering</td>
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<tr>
<td>11.10 am - 11.50 am</td>
<td><strong>Keynote Address II</strong></td>
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<td>Assoc. Prof. Dr. Johnnie . Ben Edigbe</td>
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<td>Title: Trends in Transportation Engineering</td>
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<tr>
<td>11.50 am - 12.20 pm</td>
<td><strong>Special Invited Paper</strong></td>
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<td>Minerals and Geosciences Department Malaysia (Sabah)</td>
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<td></td>
<td>Title: The Importance of Geological Input for Land-Use Planning.“Case Study of Ranau Area, Sabah”.</td>
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<tr>
<td>12.30 pm - 2.00 pm</td>
<td>LUNCH</td>
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TECHNICAL SESSION 1: GEOTECHNICAL ENGINEERING

Venue: Grand Ballroom
Chairperson: Prof. Dr. Khairul Anuar Kassim

2.00 pm – 3.40 pm

**INVITED SPEAKER**
Prof. Kenichi Soga, University of Cambridge,
Title: Slope Monitoring Using Optical Fibre Technology

**ID 120:**
Prediction of Long-Term Settlement of Soft Clay using the Continuous Surface Wave Method & Damping Measurement
Mohamad Nor Omar, Public Works Department, Kuala Lumpur.

**ID 130:**
The Compaction of Laterite Using Gyratory Compactor
Nor Hazwani Md. Zain, Universiti Teknologi MARA.

**ID 135:**
Swelling Potential of Clay Mineral Contents of Soft Rocks in Northern Peninsular Malaysia
Intan Shafika Saiful Bahri, Universiti Teknologi MARA

**ID 142:**
Re-Evaluation of Unit Skin Friction in Instrumented Bored Pile in Kenny Hill Formation
Ramlee Othman, Public Works Department Malaysia.

Question and Answer

3.40 pm – 3.45 pm
Preparation of next technical session
TECHNICAL SESSION 2 : GROUND STABILIZATION

Venue : Room VII
Chairperson : Assoc. Prof. Dr. Nurly Gofar

2.00 pm – 3.40 pm

ID 112:
Design and Development of Large Scale Shear Box for Landfill Liner Interface Testing
Sumathi Subramaniam, Universiti Malaya.

ID 126:
Thermal Properties of Lime Stabilized Soils
Amin Esazadeh, Universiti Teknologi Malaysia.

ID 137:
Strength Characteristics of Clay Soil Stabilized With Mixtures of PFA-Lime and PFA-OPC
Norazlan Khalid. Universiti Teknologi MARA.

ID 150:
Subgrade Stabilization by Fly and Bottom Ash, Kuantan Clayey Case Study
Achmad Fauzi, Universiti Malaysia Pahang.

ID 177:
Strength Characteristics of Kaolin mixed with Bottom Ash
Mohammad Ehsan Jorat, Universiti Teknologi Malaysia.

ID 204:
Preliminary Characterization of Natural zeolites by using X-Ray Techniques
Felix Ling Ngee Leh, Universiti Teknologi Malaysia.

Question and Answer

3.40 pm – 3.45 pm Preparation of next technical session
TECHNICAL SESSION 3: HIGHWAY ENGINEERING

Venue: Room VIII
Chairperson: Assoc. Prof. Dr Mohd Rosli Hainin

2.00 pm – 3.40 pm

ID 113:
Bus Speed Acceleration and Accelerator Pedal Position Behaviour at Signalised Intersection
Munzilah Md. Rohani, Universiti Teknologi Tun Hussein Onn Malaysia

ID 124:
Estimating Critical Gap at Unsignalised T-Intersection Using Maximum Likelihood, Raff and Probit Methods
Ahmad Raqib Ab Ghani, Universiti Tun Hussein Onn Malaysia

ID 134:
Traffic Data Collection and Reduction Technique Using Specially Fabricated Portable Pole and Traffic
Analyser Software (POPTAS) for Malaysian Rural and Suburban Highway and Expressway
Mohd Azahar Awang, Universiti Sains Malaysia

ID 146:
Accident Trends and Accident Prediction Model at Federal Route 50, Malaysia
Mustakim Fajaruddin, Nagoya Institute of Technology, Japan

ID 147:
Comparison Study of Maintenance and Rehabilitation Method and Procedure: Case Study for Kuching-
Samarahan Road
Ron Aldrino Chan @ Ron Bukiing, Universiti Malaysia Sarawak

ID 183:
Signalling Practices of Drivers on Multilane Highways
Othman Che Puan, Universiti Teknologi Malaysia

Question and Answer

3.40 pm – 3.45 pm
Preparation of next technical session
***TECHNICAL SESSION 4 : PAVEMENT ENGINEERING***

**Venue** : Grand Ballroom  
**Chairperson** : Assoc. Prof. Dr Othman Che Puan

**3.45 pm – 5.15 pm**

**INVITED SPEAKER**  
Prof. Hamid R. Soleymani, University of Alberta  
**Title** : Characterization of Subgrade and Unbound Granular Material for Flexible Pavements: Evolutions and Future Challenges

**ID 169:**  
Stripping Performance Of Tender Mix  
Ekarizan Shaffie, Universiti Teknologi MARA.

**ID 160:**  
An Assessment of the Surface Roughness Index of Various Bituminous Pavements In Malaysia  
Suleiman Arafat Yero, Universiti Teknologi Malaysia.

**ID 143:**  
Properties of Dutch Twinlay Porous Asphalt Utilizing Local Aggregates  
Noor Halizah Abdullah, Universiti Sains Malaysia.

**ID 173:**  
Skid Resistance and the Effect of Temperature  
Haryati Yaacob, Universiti Teknologi Malaysia.

**Question and Answer**

**5.15 pm – 5.30 pm**  
**Refreshment**

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***TECHNICAL SESSION 5 : NUMERICAL MODELLING***

**Venue** : Room VII  
**Chairperson** : Dr Amin Ehsazadeh

**3.45 pm – 5.15 pm**

**ID 101:**  
Model Study on Root Pull-Out Failure  
Siti Sara Seera Mustapa Kamil, Universiti Malaya.

**ID 102:**  
The Effect of Capillary Barrier on Mitigating Rainfall-Induced Slope Failure  
Bimo Brata Adhitya, Universiti Teknologi Malaysia.
ID 109:
Numerical Analysis of Vegetative Induced Matric Suction Changes and Deformation
Mu’azu Mohammed Abdullahi, Universiti Malaya.

ID 110:
2-D Axi-Symmetric of Root Water-Uptake and Deformation
Nazri Ali, Universiti Teknologi Malaysia.

ID 111:
Comparative study of two-dimensional and three-dimensional stability analyses in an irregular soil slope with respect to intercolumn forces
Nazri Ali, Universiti Teknologi Malaysia.

ID 175:
Finite Element Simulation Analysis of Steel Frame with Concrete Panel Retaining Wall
Mohammad Ehsan Jorat, Universiti Teknologi Malaysia.

Question and Answer

5.15 pm – 5.30 pm Refreshment

TECHNICAL SESSION 6: GEOTECHNICAL ENGINEERING

Venue : Room VIII
Chairperson : Dr Hisham Mohamad

3.45 pm – 5.15 pm INVITED SPEAKER
Mr. Zakaria Mohamad, Minerals and Geoscience Department Malaysia (Selangor/Fed. Territory)
Title: Geomorphological Approach to Study the Potential Debris Flow in Hulu Kelang Area.

ID 149:
The Potential of Using Rubberchips as a Soft Clay Stabilizer Enhancing Agent
Meel-Hoan Ho, Universiti Tun Hussein Onn Malaysia.

ID 151:
Sustainability of Geosynthetic Clay Liners (Gcl) In Tropical Countries – Thermodynamic Modelling
E.W.K. Loh, Legenda Education Group.

ID 154:
Feasibility Of Lightweight Concrete Piles To Be Utilized for Deep Foundation of Particular Structures on Soft Soils
Agus Sulaeman, Universiti Tun Hussein Onn Malaysia.
ID 117:
Sediment Transport With A Hydrodynamic Perspective
Ravindra Jayaratne, University of East London, United Kingdom.

ID 191:
Risk Analysis of Factors Affecting the Safety and Quality in Soil Nailed Structures
Peyman Behtash, Universiti Teknologi MARA.

Question and Answer

5.15 pm – 5.30pm / Refreshment

**WELCOMING DINNER**

Venue : Sutera Harbour (To be confirmed)
Hosted by : Chief Minister Office of Sabah

07.00 pm Arrival of guests

07.30 pm Welcoming speech by Y.A.B Datuk Seri Panglima Musa Haji Aman
The Right Honourable Chief Minister of Sabah

Dinner and Cultural Show
TECHNICAL SESSION 7: GEOTECHNICAL ENGINEERING

Venue: Grand Ballroom
Chairperson: Prof. Dr. Aminaton Marto

8.30 am – 10.30 am Invited Speaker
Prof. Kazuya Yasuhara, Ibaraki University
Title: Geotechnical Technique Compatible for Reduction of Environmental Impact and Natural Disaster

ID 139:
Laboratory-Based Remedial Study of a Road Embankment on Peat Soil
Zaihasra Abu Talib, Universiti Tun Hussein Onn Malaysia.

ID 144:
Experimental Study on Resilient Modulus of Liquid Silica (SiO2) Stabilized Subgrade Soil
Ismail Yusof, Universiti Tun Hussein Onn Malaysia.

ID 163:
Effect of Particle Composition on the Shear Strength Characteristics of Residual Soil at Constant Dry Density
Norbaya Haji Sidek, Universiti Teknologi MARA.

ID 178:
Bearing Capacity of Strip Footing on single reinforced sand slope
Enas B. Altalhe, Universiti Kebangsaan Malaysia.

Question and Answer

10.30 am – 11.00 am Refreshment
8.30 am – 10.30 am

**ID 194:**
Finite Element Analysis of an Anchored Reinforced Earth Wall Under Slope Surcharge
Md Zahidul Islam, Universiti Malaya.

**ID 138:**
Numerical and Experimental Analysis of Pullout Test on Square Horizontal Anchor Plates in Sand
Hamed Niroumand, Universiti Teknologi Malaysia.

**ID 187:**
2D Finite Element Analysis of Bamboo Reinforced Embankment
Badrul Nizam Ismail, Universiti Teknologi MARA.

**ID 132:**
The Effect of Elevation Model and Rainfall Trend as a Triggering Factor in Landslide
Fauziah Ahmad, University Sains Malaysia.

**ID 114:**
Backanalysis of Rainfall Induced Landslides by Perisi Model
Siti Jahara Matjan, Universiti Malaysia Sabah.

**ID 165:**
Mechanical and Hydrological Effects of A Tree on Slope Stabilization
Mohammad Ehsan Jorat Universiti Teknologi Malaysia

Question and Answer

10.30 am – 11.00 am  Refreshment
TECHNICAL SESSION 9 : HIGHWAY ENGINEERING

Venue : Room VIII
Chairperson : Assoc. Prof. Dr. Mohd Rosli Hainin

8.30 am – 10.30 am

INVITED SPEAKER
Dato' Prof. Ir. Dr Azmi Hassan,
Highway Planning Unit, Ministry of Works Malaysia.
Title: Highway Planning in Malaysia

ID 125:
Determining Passenger Car Equivalent for Motorcycle at Signalised Intersection in Batu Pahat, Malaysia
Mohd Erwan Sanik, Universiti Tun Hussein Onn Malaysia.

ID 156:
Road Safety Traffic Standard of Riau Province
Abd. Kudus Zaini, Islamic University Of Riau-Pekanbaru- Indonesia.

ID 168:
Measurement Performance of Soekarno – Hatta Airport by Balanced Scorecard Methods
Juanita, Muhammadiyah University of Purwokerto, Indonesia.

ID 172:
Mobile Ad-Hoc Networking for Vehicular Road and Traffic Safety
Hannes Masanding, Universiti Tun Hussein Onn Malaysia.

Question and Answer

10.30 am – 11.00 am

Refreshment

TECHNICAL SESSION 10 : ROCK MECHANICS

Venue : Grand Ballroom
Chairperson : Dr Nazri Ali

11.00 am – 1.00 pm

INVITED SPEAKER
Mr. Zakaria Mohamad,
Minerals and Geoscience Department Malaysia
(Selangor/Fed. Territory)
Title: Geological Perspective of Site Investigation in Malaysia.

ID 170:
Effect of Moisture Content on the Strength of Weathered Granite In Tropical Climate
Mohamed Fauzi Md Isa, Universiti Teknologi Malaysia.
ID 171:  
Excavatability Assessment of Weathered Sedimentary Rock Mass Using Seismic Velocity Method  
Mohamed Fauzi Md Isa, Universiti Teknologi Malaysia.

ID 188:  
Potential Alkali Silica Reactivity in Aggregates  
Mohamed Fauzi Md Isa, Universiti Teknologi Malaysia.

ID 195:  
Underground Structures Under Squeezing Rock Condition- A Review  
Vahed Ghiasi, Universiti Putra Malaysia.

ID 140:  
Rippability Assessment of Quartzite in Kenny Hill Formation  
Chan Sook Huei, Public Works Department Malaysia.

Question and Answer

1.00 pm – 2.00 pm  LUNCH

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**TECHNICAL SESSION 11: SOIL MECHANICS & LABORATORY TESTS**

Venue : Room VII  
Chairperson : Dr. P. Rajeev Kumar

11.00 am – 1.00 pm

ID 103:  
Rate Effect and Vane Shear Strength of Sandy Clay  
N.A. Yusoff, Sheffield University.

ID 105:  
The Correlations and Analysis of Properties for Soils In Maran, Pahang  
Muzlamir Hasan, Universiti Malaysia Pahang.

ID 106:  
Analytical and Experimental Behaviour of Soil Nailed Embankments in Clay Under Centrifuge Loading  
Dayangku Salma Awang Ismail, Universiti Malaysia Sarawak.

ID 119:  
Evaluation of Migration of Light Nonaqueous Phase Liquid by Image Analysis  
Samira Albat Alkamarudin, Universiti Putra Malaysia.

ID 131:  
Geotechnical Characteristics of Peat Soils Through A Fabric and Micro-Structure Perspective  
Adnan Zainorabidin, Universiti Tun Hussein Onn Malaysia.
ID 116:
Development of IRB Test-Bed at Research Centre for Soft Soil Malaysia (Recess Malaysia): from Concept to Testing
Mohd Idrus Hj. Mohd Masirin, Universiti Tun Hussein Onn Malaysia.

Question and Answer

1.00 pm – 2.00 pm LUNCH

TECHNICAL SESSION 12: PAVEMENT ENGINEERING

Venue : Room VIII
Chairperson : Dr Anil Minhans

11.00 am – 1.00 pm

ID 136:
Modified Bitumen with Oil Palm Fruit Ash
Gatot Rusbintardjo, Universitas Islam Sultan Agung, Semarang, Indonesia.

ID 166:
Mix Design of Cold Recycled Mix Using Different Recycled Asphalt Pavement (RAP) Proportion
R. Razali, Public Works Department, Malaysia.

ID 167:
Use of Dynamic Modulus Test to Evaluate Moisture Susceptibility of Asphalitic Concrete Mixtures
Juraiah Ahmad, Universiti Teknologi MARA.

ID 181:
The Effect of Epoxy Bitumen Modification on Hot Mix Asphalt Properties and Rut Resistance
Dorina Anak Astana, Universiti Teknologi Malaysia.

ID 196:
Exploring the Usage of Nanoparticles in Pavement Engineering
Mohd Ezree Abdullah, Universiti Tun Hussein Onn Malaysia.

ID 197:
Vertical Displacement of Underside Shaped Concrete Block Pavement
Azman Mohamed, Universiti Teknologi Malaysia.

ID 104:
Evaluation of Threshold Stress of Subgrades for Highway Formation Based on the Unconfined Cyclic Triaxial Test
Elsa Eka Putri. Universiti Malaysia Sabah.

Question and Answer

1.00 pm – 2.00 pm LUNCH
TECHNICAL SESSION 13 : GEOTECHNICAL ENGINEERING

Venue : Grand Ballroom
Chairperson : Dr Hisham Mohamad

2.00 pm – 3.40 pm

INVITED SPEAKER
Dr Che Hassandi Abdullah, Public Works Department, Malaysia
Title: Sustainable Development in Geotechnical Engineering in Public Works Department, Malaysia.

ID 176:
Settlement of Embankment on Prefabricated Vertical Drain Treated Ground
Abdul Razak Ali, Prima Reka Konsultan.

ID 184:
Effect of Industrial Chemicals on the Shear Strength and Settlement Characteristics of Silty Soil
P Rajeev Kumar, Universiti Teknologi Malaysia.

ID 185:
To Assessment of Viscosity of Cement-Sodium Silicate Grout with Kaolinite
Sina Kazemian, Universiti Putra Malaysia.

ID 186:
Review of Newtonian and non-Newtonian Fluids and Grout Behaviors
Sina Kazemian, Universiti Putra Malaysia.

Question and Answer

3.40 pm – 3.45 pm

Refreshment

TECHNICAL SESSION 14 : HIGHWAY ENGINEERING

Venue : Room VII
Chairperson : Dr Juraidah Ahmad (UiTM)

2.00 pm – 3.40 pm

ID 182:
Speed/Density Linearity Shift Resulting from Road Humps
Ben - Edigbe, J, Universiti Teknologi Malaysia.

ID 202:
Guiding Framework for Traffic Management in Disasters
Anil Minhaps, Universiti Teknologi Malaysia.
ID 205:
A Critical Analysis of Road Accidents, Vehicular Flow-Rate and Speed With Reference to Route F050 BP-Kluang
Mohd Idrus Hj. Mohd Masirin, Universiti Tun Hussein Onn Malaysia.

ID 206:
Appraisal on Investigation Methods of Approach Slab for Road-Bridge Interface Sections: A Proposed Recess Project
Mohd Idrus Hj. Mohd Masirin, Universiti Tun Hussein Onn Malaysia.

ID 207:
Transverse Rumble Strips Application in Malaysia
M.H. Othman, Universiti Teknologi Malaysia.

ID 208:
Transverse Rumble Strips: A Review of Noise Problems
M.H. Othman, Universiti Teknologi Malaysia.

Question and Answer

3.40 pm – 3.45 pm  Refreshment

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**TECHNICAL SESSION 15: UNDERGROUND EXCAVATIONS**

Venue : Room VIII
Chairperson : Ir. Rusman Rais (SCG Consultant Sdn Bhd)

2.00 pm – 3.40 pm

ID 203:
A Short Review of Analytical Methods for Tunnelling In Elastic Ground
Siti Norafida Jusoh, Universiti Teknologi Malaysia

ID 157:
Assessment of Contiguous Buildings Damage Due to Tunnelling
Eshagh Namazi, Universiti Teknologi Malaysia.

ID 198:
Using 2D Electrical Imaging to Detect Cavities, Pinnacles and Bedrock at Gunung Keriang, Kedah, Malaysia
Edy Tonnizam Mohamad, Universiti Teknologi Malaysia.

ID 199:
The Seismic Refraction Survey In Shallow Subsurface Investigation
Edy Tonnizam Mohamad, Universiti Teknologi Malaysia.
ID 200:
Groundwater Survey Using Geophysical Method at Nenasi, Pahang
Edy Tonnizam Mohamad, Universiti Teknologi Malaysia.

Question and Answer

3.40 pm – 3.45 pm  Refreshment

TECHNICAL SESSION 16: SOFT CLAYS & PROBLEMATIC SOILS

Venue  : Grand Ballroom
Chairperson : Assoc. Prof. Dr. Nurly Gofar

3.45 pm – 4.45 pm

ID 115:
Construction Challenges on Sibu Peat Soil: Case Study and Lessons Learned
Mohd Idrus Hj. Mohd Masrin, Universiti Tun Hussein Onn Malaysia.

ID 118:
Field Tests on Natural Clay Deposit Reinforced With Granular Fill Layers
Ahmet Demir, Cukurova University, Balcali, Adana, Turkey.

ID 141:
Performance of Various Piezometers in Soft Clay in Kandang, Melaka
Edsayu Salleh @ Aman, Public Works Department Malaysia.

ID 192:
Innovative High Vacuum Densification Method (HVDM) for Soft Cohesive Soil Improvement
Robert Y. Liang, University of Akron.

Question and Answer
ID 158:
Three Dimensional Analysis of Tunnel Face Stability using Upper Bound Theorem in a Two-Layered Soil
N. Khezri, Universiti Teknologi Malaysia.

ID 152:
Numerical Study on the Longitudinal Deformation Profile Considering the Pre-Reinforcement – Experience from Korean Subway Project
Song Ki Il, Universiti Teknologi MARA.

ID 108:
Prediction of Surface Settlement Based on the Analysis of Soil Movement Pattern Around the Tunnels
Mohsen Hajihassani, Universiti Teknologi Malaysia.

Question and Answer

ID 180:
Development of Software for Rigid Pavement Thickness Design
Mohd Khairul Idham Mohd Satar, Universiti Teknologi Malaysia.

ID 128:
Effects of Waste Cooking Oil as A Rejuvenating Agent for Aged Bituminous Pavement
Halliza Asli, Universiti Malaya.

ID 133:
Engineering Properties of Local Reclaimed Asphalt Pavement Aggregate
Lillian Gungat, Universiti Malaysia Sabah.

ID 107:
Optimum Binder for Porous Mixtures Made by Various Aggregate Gradations and Its Properties Towards Producing Grouted Macadam Composite Pavement
Nadiah Md. Husain, Universiti Malaya.

Question and Answer
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<td>4.40 pm</td>
<td>Gathering of Participants</td>
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<td>4.45 pm</td>
<td>Panel Discussion (Chairperson: Prof. Dr Aminaton Marto) “Sustainability in Geotechnical and Transportation Engineering”</td>
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<td>5.10 pm</td>
<td>Closing Speech by Deputy Dean (Research &amp; Graduate Studies) Faculty of Civil Engineering, Universiti Teknologi Malaysia.</td>
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<td>5.15 pm</td>
<td>Recital of Doa</td>
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<td>5.20 pm</td>
<td>Group Photography</td>
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<td>5.30 pm</td>
<td>Refreshment &amp; Adjourn</td>
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TECHNICAL VISIT (OPTIONAL TO PARTICIPANTS)

07.45 am  Gather at Sutera Harbour Hotel, Kota Kinabalu
08.00 am  Depart to Kundasang
10.00 am  Arrive at Kundasang Site (Fault Zones)
           Site 1 – Kundasang Retaining Wall (Lobou-Lobou Fault Zone)
           Site 2 – SMK Kundasang (Lobou-Lobou Fault Zone)
11.05 am  Depart to Kg. Kibbas
11.20 am  Site 3 – Kg. Kibbas, Ranau
           (Fault Intersection – Kibbas Fault, Lipasu Fault & Koporingan Fault)
11.30 am  Lunch
12.15 pm  Depart to Dairy Farm and Kinabalu Park
04.00 pm  Depart to Kota Kinabalu
06.00 pm  Arrive in Kota Kinabalu

* Registration required due to limited space.