

First Himalayan Engineering Geological Congress (HEGC-I)



Kathmandu, Nepal

12-13 May, 2019



Main Sponsors:



Sponsors:



Organizers:



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Nepalese Society of
Engineering
Geologists (NSEG)

Programs and Technical Sessions

First Himalayan Engineering Geological Congress (HEGC-I)

“Engineering Geology and Geotechniques for
Developing Countries”

May 11-16, 2019, Kathmandu, Nepal

Supporting National Partners:

Nepal Academy of Science and Technology
Nepal Geotechnical Society
Nepal Landslide Society
Himalayan Landslide Society
Nepal Society for Rock Mechanics
Global Institute for Interdisciplinary Studies

International Partners:

Japan Society of Engineering Geology
International Consortium on Geodisaster Reduction (ICGdR)
Indian Society of Engineering Geology
International Association of Lowland Technology (IALT)
AECOM, USA, UK
Kasetsart University, Thailand
Suranaree University of Technology, Thailand
Association of Soft Ground Technology (ASGT), Japan
Mod Chana Phai Foundation, Thailand

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1 Registration

Welcome to First Himalayan Engineering Geological Congress (HEGC-I)!

Registration desk will be opened from 2019/05/10, 14:00 hours onward until 2019/05/12, 16:00 hours. All participants can register and get conference kit from registration desk along with abstract volume and conference program booklet. Participants who are registered to pre-conference excursion need to collect name card and lunch coupon from registration desk on 2019/05/10.

2 Pre-Congress Excursion

Pre-conference excursion will be held on May 11, 2019. All registered participants are requested to gather outside of Hotel Radisson at 7:30 AM.

2019.05.11: Detail Program for Pre-conference Excursion

Ex-1: A full day Kathmandu Valley tour to explore ground response and related damages during the 2015 Gorkha Earthquake

2019/05/11, 8:00 AM – Departure from Hotel

2019/05/11, 9:00 AM – Arrival at Changunarayan Hills, Observation of Geomorphological settings of the Chagunarayan Hill and Kathmandu valley.

2019/05/11, 11:00 AM – Arrival at Bhaktapur City. Observation of ongoing earthquake reconstruction works in heritage site. Evaluation of Nyatapol Temple which was survived in the 2015 Gorkha Earthquake.

2019/05/11, 12:00 AM – Typical Nepali style lunch at Bhaktapur Darbar Square area.

2019/05/11, 2:00 PM – Arrival at Bagdol, Lalitpur and observation of liquefaction area during the 2015 Gorkha Earthquake.

2019/05/11, 4:00 PM – Arrival at Swayambhu Hill. Observation of earthquake reconstruction works and effects of creep landslide in and around Swayambhu Hill. Evaluation of engineering geological settings of World Heritage Site.

2019/05/11, 7:00 PM – Arrival at Hotel Radisson.

Excursion coordinator: Dr. Suman Manandhar

3 Exhibitions: In front of Main Hall

Space in front of Main Hall will have exhibitions from sponsors. The exhibitions will start from 8:00 hours of 12th May and end at 17:00 hours of 13th May.

Booth Number	Name of Exhibitors
B-1	Maccaferri
B-2	Trumer Schutzbauten/ Geotech Solutions International, Nepal
B-3	GS Consortium, Nepal
B-4	International Organization for Migration (IOM), Nepal

4 Inaugural Ceremony

The First Himalayan Engineering Geological Congress (HEGC-I) Inaugural Ceremony

Hall – Nepa-Dhuku

Time	Activities
7:30 - 8:30	Registration
8:30-8:32	Arrival of the Chief Guest, Dr. Sunil Babu Shrestha, Vice-Chancellor, Nepal Academy of Science and Technology
8:32-8:35	Ceremony Chair – Dr. Ranjan Kumar Dahal, Founder President, Nepalese Society of Engineering Geologists
8:35 - 8:40	Dignitaries call on the dais
8:40- 8:45	Welcome speech and Information about HEGC-I by Dr. Kumud Raj Kafle, Co-Convener, HEGC-I
8:45- 8:50	Inauguration of the Congress by the Chief Guest
8:50- 8:55	Speech by Prof. Dr. Dennes T. Bergado, Professor Emeritus, Asian Institute of Technology, Thailand
8:55- 9:00	Speech by Prof. Dr. Nobuo Mishima, Executive President, International Association of Lowland Technology (IALT)
9:00-9:05	Speech by Prof. Dr. Shuichi Hasegawa, Ex-President, Japan Society of Engineering Geology and Member of working committee, Geopark Network of Japan.
9:05 - 9:10	Speech by Special Guest, Dr. Som Nath Sapkota, Director General, Department of Mines and Geology, Government of Nepal
9:10 - 9:15	Speech by the Special Guest from Ministry of Home Affairs, Government of Nepal
9:15 - 9:25	Address by the Chief Guest, Dr. Sunil Babu Shrestha, Vice-Chancellor, Nepal Academy of Science and Technology
9:25-9:30	Vote of thanks by Dr. Ranjan Kumar Dahal, Founder President, Nepalese Society of Engineering Geologists
9:30-9:35	Photo Session – with all participants
9:35-10:00	Tea- Coffee Break

Master of Ceremony (MC): **Dr. Suman Manandhar, Secretary NSEG and Co-Convener, HEGC-I.**

The First Himalayan Engineering Geological Congress (HEGC-I)

May 12-13, 2019, Kathmandu, Nepal

5 Congress Day 1: 12th May, 2019

5.1 Day 1 - Keynote Presentation Session - 1

Chairperson: *Prof. Dr. Hemant Hazarika*

Co-Chairperson: *Dr. Suman Manandhar*

Rapporteurs: *Mr. Nabin Sapkota and Mr. Harichandra Budhathoki*

Hall - Nepa		
Time	Title of Key Notes	Authors
10:00-10:30	1. Experiences of Soil Improvement and Erosion Control Method	<i>Prof. Dennes T. Bergado</i>
10:30-11:00	2. Looking for Historical and Pre-Historical Earthquake in Himalaya Region	<i>Dr. Som Nath Sapkota</i>
11:00-11:30	3. The Transition of Soil Structure in the High Tide Level Change Environment	<i>Prof. Dr. Takenori Hino</i>
11:30-12:00	4. Stabilization of Marginal Lateritic Soil Using Melamine Debris for Sustainable Geotechnical Applications	<i>Prof. Dr. Suksun Horpibulsuk</i>
12:00-12:30	5. Engineering Geology of the Himalaya	<i>Prof. Dr. Shuichi Hasegawa</i>
<i>Introductory presentation from Congress Sponsors:</i>		
12:30-12:45	<i>Presentation from Maccaferri</i>	
12:45-12:50	<i>Introduction to Trumer Schutzbauten/Geotech Solutions International, Dr. Manita Timilsina</i>	
12:45-13:40	Lunch Break – Lunch at Waterfall Garden	

5.2 Day 1 - Parallel Technical Sessions

5.2.1 Technical Session I: Engineering Geological and Geotechnical Engineering Site investigations, Landslide study, Study on Soil Properties

Chairperson: *Prof. Dr. Jin Chun Chai*

Co-Chairperson: *Dr. Kumud Raj Kafle*

Rapporteurs: *Mr. Shankar Pantha*

Hall - Nepa		
Time	Title of Papers	Authors
<i>Invited Lectures</i>		
13:40-14:00	6. In-situ Strength Estimation of Natural Slope by Simple Testing Method	<i>Prof. Dr. Kiyoshi Omine</i>
14:00-14:20	7. Process analyses, investigation, monitoring and numerical modelling of deep-seated rock slides in metamorphic rock masses	<i>Prof. Dr. Christian Zangerl</i>
14:20-14:40	8. Slope Failure Due To Effect of Damrey Thypoon Surrounding Penang Island	<i>Prof. Dr. Fauziah Ahmad, A.S. Yahaya, N. Mustaza</i>
14:40-15:00	9. Application of screw driving sounding and sd-sampler to assess soil properties	<i>Prof. Dr. Naoaki Suemasa</i>
<i>Technical presentations</i>		
15:00-15:15	10. Conventional laboratory investigations are never out of fashion: correlations of shear strength with plasticity index revisited on the case study of Dobkovičky landslide in Czech Republic	<i>Jakub Roháč, G. Scaringi, J. Bohac, P. Kycl, J. Najser</i>
15:15-15:30	11. Catastrophic debris flows in Kazbegi Mountain Area, Georgia – use of available free internet information to generate conceptual engineering geological model	<i>Martin Dostalík, J. Novotny, O. Kurtsikidze, G. Gaprindashvili</i>
15:30-15:45	12. Activity Consolidation and swelling potential of Kathmandu Clay	<i>Jyoti Khatiwada, Ranjan Kumar Dahal</i>
15:45-16:00	13. Preliminary Understanding of Geotechnical Properties of Soundation Soil of Dharahara tower.	<i>Om Dhakal, Ranjan Kumar Dahal, Manita Timilsina, Sunil Poudyal</i>
16:00-16:20	Tea Break	

5.2.2 Technical Session II: Soil Properties and Slope instability studyChairperson: *Prof. Dr. Fauziah Ahmad*Co-Chairperson: *Dr. Prachand Man Pradhan*Rapporteurs: *Mr. Jyoti Khatiwada*

Hall - Nepa		
Time	Title of Papers	Authors
<i>Invited Lectures</i>		
16:20-16:40	14. Laterites & Lateritic Soils : Geology, Engineering Properties and Problems	<i>Prof. Dr. R. Shivashankar</i>
16:40-17:00	15. Lowering the ground water level and prevention of landslide due to vacuum propagation by Super Well Point Method	<i>Prof. Masayuki Hyodo</i>
<i>Technical presentations</i>		
17:00-17:15	16. Slope Instability Evaluation Using 2-D Resistivity Method of Gua Musang-Cameron Highland Highway	<i>Tajudeen Adeeko Muhammad Taqiuddin Zakaria, Nordiana Muztaza, Hareyani Zabidi, Fauziah Ahmad, , Nurina Ismail, Nuraisyah Samsudin, Andy Anderson Bery</i>
17:15-17:30	17. Use of Flexible Systems for Mitigation of Hillside Instabilities	<i>Roshan RSV, Pravin Bhaskar Abhale, Basudev Pokharel, Rudra Budhbhatti</i>
17:30-17:45	18. Evolution History of Krishnabhir Landslide	<i>Yugal Paudel, Ranjan Kumar Dahal</i>
17:45-18:00	19. Investigating the Landslide Susceptibility of a Glacial/Periglacial Landscape, Langtang Valley, Nepal	<i>Joshua N Jones, S.J. Boulton, G.L. Bennett, M.R.Z. Whitworth, M. Stokes</i>
18:00-18:15	20. Global warming look aside for triggering landslides in Western Ghats India	<i>Tejas Kumar</i>
18:15-18:40	Break for Welcome Reception Preparation	
18:40-21:00	Welcome Reception – NepaDhuku Hall	

5.2.3 Technical Session III: The 2015 Gorkha Earthquake, Geophysical Exploration, Seismological study and Structural Engineering

Chairperson: *Dr. Som Sapkota*

Co-Chairperson: *Dr. Bikash Adhikari*

Rapporteurs: *Mr. Sanjiv Singh Karki*

Hall - Dhuku		
Time	Title of Papers	Authors
<i>Invited Lectures</i>		
13:40-14:00	21. Partial Infill in RC Frames under Lateral Load	<i>Dr. Prachand Man Pradhan</i>
<i>Technical presentations</i>		
14:00-14:15	22. Advances in Technology for Areas of High Seismic Risk	<i>Will Reis</i>
14:15-14:30	23. Status of Foreign Aid to Nepal's Earthquake-2015	<i>Kushum Shakya</i>
14:30-14:45	24. Learning on Implementation of Stone Masonry Building Retrofitting in a context of Gorkha Earthquake Reconstruction	<i>Ranjan Dhungel, Surya Narayan Shrestha, Ramesh Guragain, Rajani Prajapati, Aasish Tiwari, Ayush Baskota, Manish Raj Goauli, Hari Ram Pathak, Pranav Dahal Prakash Shrestha</i>
15:45-15:00	25. Earthquake Resistant Assessment of Building Construction Technique in the Nayagaun Settlement of Kavre before Gorkha Earthquake	<i>Reejena Pradhan, Prachand Man Pradhan</i>
15:00-15:15	26. Dynamic simulation of a glaciated debris avalanche triggered by the 2015 Gorkha earthquake: a preliminary analysis	<i>Mr. Kaushal Raj Gnyawali, Aiguo XING</i>
15:15-15:30	27. Influence of Topographic Effects on Dynamic Behavior of Hill Slope Building	<i>Nishan Gajurel, Suman Manandhar, Mahesh Raj Bhatt</i>
15:30-15:45	28. Effects of Soil Structure Interaction on Reinforced Concrete Framed Structures of Buildings	<i>Nasala Dongol, Suman Manandhar, Prachand Man Pradhan</i>
15:45-16:00	29. Investigation of Sub-Surface Geological And Man-Made Features in and Around Lazimpat - Maharajgunj Area, Kathmandu Valley Using Ground Penetrating Radar (GPR)	<i>Arun Dhoj Adhikari Chhetri, Umesh Chandra Bhusal, and Lalu Prasad Paudel</i>
16:00-16:20	Tea Break	

5.2.4 Technical Session IV: Disaster Risk Management and Geohazard Investigation

Chairperson: Prof. Dr. Shuichi Hasegawa

Co-Chairperson: Mr. Jakub Roháč

Rapporteurs: Mr. Nabin BK and Mr. Suresh Adhikari

Hall - Dhuku		
Time	Title of Papers	Authors
Invited Lectures		
16:20-16:40	30. Implementing the Sendai Framework in developing countries using remote sensing techniques for the evaluation of natural hazards.	Dr. Michael Whitworth , S.J. Boulton, and J. Jones
16:40-17:00	31. An Impact of Gender Equality on Regional Disaster Prevention and Response	Prof. Keiko Kitagawa
17:00-17:20	32. Assessment of Reconstruction work in Gorkha District, Nepal: A community Perspective in Disaster Risk Management after Gorkha Earthquake 2015	Prof. Nar Bikram Thapa
Technical presentations		
17:20-17:35	33. Local level disaster response competency in Nepal: Recent (31st March) Tornado as a case study	Shrijan Bahadur Malla , Ranjan Kumar Dahal, Shuichi Hasegawa
17:35-17:50	34. Deterrence of Disaster through Observation of Disaster Resilience using Information Technology	Gajendra Sharma
17:50-18:05	35. Decadal variation in the land use and land cover pattern of Madi, chitwan from 1989 to 2017 with flood hazard mapping	Bikash Adhikari , P. Pokharel, Y. Pradhan, A. Ulak
18:05-18:20	36. Effectiveness of Welded Wire Meshing as a Retrofitting Measure for Stone in Mud Masonry Walls	V. Manandhar , N.P. Marasini, R. Prajapati, A. Sextos, N. Alexander
18:20-18:40	Break for Preparation	
18:40-21:00	Welcome Reception – NepaDhuku Hall	

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May 12-13, 2019, Kathmandu, Nepal

6 Conference Day 2: 13th May, 2019

6.1 Day 2 – Keynote Presentation Session - 2

Chairperson: *Prof. Dr. Dennes T. Bergado*

Co-Chairperson: *Dr. Kumud Raj Kafle*

Rapporteurs: *Ms. Durga Khatiwada and Mr. Milan Kumar Rai*

Hall - Nepa		
Time	Title of Papers	Authors
Keynote Lectures		
8:30-9:00	37. Estimating Engineering Properties of Soil from Piezocone Test Results	Prof. Dr. Jinchun Chai
9:00-9:30	38. ICT-based Study for Community Development in a Historic Town	Prof. Nobou Mishima , Yasuhisa Okazaki Hiroshi Wakuya
9:30-10:00	39. Earthquake Induced Landslides in Gentle Slopes- Lessons Learned from the 2016 Kumamoto Earthquake	Prof. Hemanta Hazarika , Y. Kochi, S. Ishibashi, T. Kokusho and D. Matsumoto
10:00-10:30	40. Appropriate Technologies Through Community-Based Management for Landslide and Earthquake Mitigation in Developing Country	Dr. Suttisak Soralump
10:30-10:50	Tea Break	

6.2 Day 2 - Parallel Technical Sessions

6.2.1 Technical Session V: Recent Advancement in Engineering Geology and Geotechnical Engineering

Chairperson: Prof. Dr. N. Suemasa

Co-Chairperson: Mr. Mandip Subedi

Rapporteurs: Mr. Arun Dhoj Adhikari Kshetri

Hall - Nepa		
Time	Title of Papers	Authors
Invited Lectures		
10:50-11:10	41. Compressive Strength Characteristics of Geopolymers using Industrial By-Products such as Fly ash, Steel Sags and Garbage Melting Furnace Slags	Prof. Dr. Tatsuya Koumoto
11:10-11:30	42. An integrated and resource recovery approach for sustainable solid waste management in Municipalities of Nepal	Dr. Dhundi Raj Pathak
11:30-11:50	43. Characteristics of Each Sub-Basin and Influence Factors of the 2017 Northern Kyushu Torrential Rain Disaster Using GIS	Prof. Dr. Koichiro Ohgushi
Technical presentations		
11:50-12:05	44. 3D debris mobility modelling using LS-DYNA – A case study from Freetown, Sierra Leone	Arthur Ka Chun Cheung
12:05-12:20	45. Virtual Geo-Hazard Monitoring and Asset Management System (ViGMAS)	R.C. Omar
12:20-12:35	46. Evaluation of Coefficient of Restitution in the Siwaliks at the Siddhababa Road Section	Milan Bhusal, Ranjan Kumar Dahal
12:35-12:50	47. Time-dependent Structural Reliability Analysis of Reinforced Concrete Bridges	Kameshwar Sahani, Santosh Chaudhary
12:50-13:05	48. Assessment and Simulation of Landslide Dam Outburst Flood (LDOF) for Syarpu Lake, Midwest Nepal	Deepak Ghimire, Ranjan Kumar Dahal
13:05-13:45	Lunch Break – Lunch at Garden	

6.2.2 Technical Session VI: Engineering Geology of Tunnels, Hydropower and Mining Projects, Case Studies

Chairperson: *Dr. Pawan Kumar Shrestha*

Co-Chairperson: *Mr. Martin Dostalik*

Rapporteurs: *Mr. Puspa Raj Bhatta*

Hall - Nepa		
Time	Title of Papers	Authors
Technical presentations		
13:45-14:00	49. Comparisons of rock support design adopted in pressurized and non-pressurized tunnel of Nepal Himalaya	Kanchan Chaulagai, Ranjan Kumar Dahal
14:00-14:15	50. Stress and deformation analysis of powerhouse cavern of Rasuwagadhi Hydroelectric Project, Rasuwa, Central Nepal	Nabin B.K., Suman Panthee
14:15-14:30	51. Fault Induced Problems in Hydropower Tunnels of Nepal: A case study.	Bimal Chhushyabaga, Shyam Sundar Khadka.
14:30-14:45	52. Determination of Physical Properties of Carbonate Rocks for Tunnel Stability Design Using Seismic Wave	R.C Omar
14:45-15:00	53. TSP: Tunnel Seismic Prediction - An advanced credible geophysical probing system in geotechnical prediction	Kripal Choudhary, H. Bineshian, Thomas Dickmann, S. Gupta, R. K. Hegde
15:00-15:15	54. Study of deformation of tunnel emphasis on squeezing; A case study on Lower Modi Hydro-electric Project, Parbat, Nepal	Nabin Sapkota, Suman Panthee
15:15-15:30	55. Rock Slope Stability Analysis for Cut Slope at Ramchandra Bhir	Ujjwal Krishna Raghubanshi, Ranjan Kumar Dahal
15:30-15:45	56. Probabilistic Seismic Hazard Analysis on Dam Site for specific Hydraulic Structures	Pradeep Shrestha, Prachand Man Pradhan, Shiva Prasad Timalsina
15:45-16:00	57. Design and Analysis of Hydropower Tunnels in Nepal - A Case Study	Sujan Karki, Shyam Sundar Khadka, Bibek Karki
16:00-16:15	Tea Break	

6.2.3 Technical Session VII: Engineering Geology, Solid Waste Management and Urban and Infrastructure Planning

Chairperson: Prof. Nobuo Mishima

Co-Chairperson: Mr. Kanchan Chaulagai

Rapporteurs: Mr. Birat Shrestha

Hall - Nepa		
Time	Title of Papers	Authors
16:15-16:30	58. Life cycle assessment of different municipal solid waste management scenarios: a case study of Kathmandu, Nepal	Dhundi Raj Pathak, <i>Rakshya Shahi</i>
16:30-16:45	59. Road Connectivity and Spatial Transformation: Socio-Physical Changes in the Intermediate Settlements of the BP Highway (Banepa Bardibas Highway)	Bishwodev Bhattarai, <i>J.C. Pokharel</i>
16:45-17:00	60. Scenario Based Analysis of Solid Waste Management in Bhaktapur Municipality	Avidha Shah, A.K. <i>Shrestha, A.G. Kisiju, and S.R. Paudel</i>
17:00-17:15	61. Documentation of Heritage Building, Case of Historic Settlement of Dhulikhel	Buddha Shrestha, Kriti Rajkarnikar
17:15-17:30	62. Inadequate Studies on Geotechnical Site Exploration, Case Studies	Suman Manandhar, <i>Vishnu Dangol, and Achyutanand Bhandary</i>
17:30-17:45	63. Geological Study for the canal alignment of the Saptakoshi High Dam Project	Durga Khatiwada, <i>Ranjan Kumar Dahal, Manita Timilsina</i>
17:45-18:00	64. Mechanism for reducing seismic vulnerabilities of existing buildings: Case study from Ghorahi Sub-Metropolitan City	S. Pradhan , S.R. <i>Bhattarai, S. Acharya, R.D. Shrestha, S.N. Shrestha</i>

6.2.4 Technical Session VIII: Climate Change, Groundwater, Hydrology, Weathering, Geohazard Impact and Geothermal Energy

Chairperson: *Dr. Prachanda Man Pradhan*

Co-Chairperson: *Mr. Umesh Chandra Bhusal*

Rapporteurs: *Mr. Yugal Poudel*

Hall - Dhuku		
Time	Title of Papers	Authors
Technical Presentation		
10:50-11:05	65. Groundwater resources investigation in Mahottari Terai, Eastern Nepal	Rajendra Neupane
11:05-11:20	66. Utilizing Geophysical Method in Exploring Geothermal Energy	Nuraisyah Samsudin, Nordiana Mohd Muztaza, Muhammad Taqiuddin Zakaria, Tajudeen Adeeko, Fauziah Ahmad, Mohd Hariri Arifin
11:20-11:35	67. Hydrogeology and Landuse Changes Study in Recharge Area of Springs – A Case Study of Ward 6 of Gorkha Municipality	Prasuna Maskey, Kumud Raj Kafle
11:35-11:50	68. Automatization for bigdata handling and processing: An application in DHM meteorological data of Nepal.	Aastha Bhatta
11:50-12:05	69. Streambank Erosion Susceptibility Index and flood-prone area mapping along the Karra River, Hetauda, Central Nepal Sub-Himalaya	Rhythum Rai, Naresh Kazi Tamrakar
12:05-12:20	70. Assessment of Suspended Sediment Composition And Characteristics Along The Kaligandaki River from Jomsom to Nayapul, Nepal	Dejina Shrestha, Kumud Raj Kafle
12:20-12:35	71. Analysis and estimation of Landslide Impact to Road, a part of Arniko Highway from Chaku to Liping, Sindhupalchowk, Central Nepal	Puspa Raj Bhatta, Ranjan Kumar Dahal
12:35-12:50	72. Geophysical Approach for Water Seepage Study in Near Surface Assessment	Tajudeen Olugbenga Adeeko, Nordiana Mohd Muztaza, Muhammad Taqiuddin, Zakaria Nurina Auni, Ismail Nuraisyah Samsudin, Andy Anderson Bery, Fauziah Ahmad
12:50-13:45	Lunch Break – Lunch at Garden	

6.2.5 Technical Session IX: Geohazard Assessment

Chairperson: *Prof. Dr. Christian Zangerl*

Co-Chairperson: *Dr. Gajendra Sharma*

Rapporteurs: *Mr. Milan Bhusal*

Hall - Dhuku		
Time	Title of Papers	Authors
13:45-14:00	73. Multi-hazard assessment – A case study from Kalikot district of western Nepal	<i>Arthur Ka Chun Cheung</i>
14:00-14:15	74. Investigation of Subsurface Karst Features in Mahendra Cave System of Pokhara Valley Using Electrical Resistivity Tomography Method	<i>Umesh Chandra Bhusal, Hari Ghimire, Ranjan Kumar Dahal, Prakash Das Ulak</i>
14:15-14:30	75. Probabilistic seismic hazard analysis of Nepal	<i>Dr. Prachand Man Pradhan</i>
14:30-14:45	76. The Relationship Between Large-Scale Landslide Mass and Small-Scale Landslides in Southern Part of Kathmandu Valley	<i>Milan Kumar Rai, Ranjan Kumar Dahal</i>
14:45-15:00	77. Rainfall-induced roadside cut slope failure assessment in the colluvium soil of the Lesser Himalaya, Central Nepal	<i>Shankar Pantha, Ranjan Kumar Dahal, Manita Timilsina</i>
15:00-15:15	78. Geological and Engineering Geological Studies of the Sisdole-Banchare Danda Landfill Site with Emphasis on Slope Stability of Sisdole Landfill Site, Nuwakot, Nepal	<i>Birat Shrestha, Kabi Raj Paudyal</i>
15:15-15:30	79. Event Based Landslide Hazard Evaluation of Narayanghat-Mugling Road Section, Lesser Himalaya, Central Nepal	<i>Kabita Maharjan, Ranjan Kumar Dahal, Manita Timilsina</i>
15:30-15:45	80. Probabilistic seismic hazard assessment at Singati, Central Nepal	<i>Ajaya Chapagain</i> <i>Sudhir Rajaure</i>
15:45-16:00	81. Assessment of Rock Slope Deterioration Based on Granite Rock Slope and an Amphibolite Schist Rock Slope	<i>R Roslan, INZ. Buharuddin, H. Taha</i>
16:00-16:15	Tea Break	

6.2.6 Technical Session X: Modeling, Laboratory Experiments and Field Investigation in Engineering Geology

Chairperson: Dr. Dhundi Raj Pathak

Co-Chairperson: Mr. Ujjwal Krishna Raghubanshi

Rapporteurs: Mr. Aditya Dhungana

Hall - Dhuku		
Time	Title of Papers	Authors
16:15-16:30	82. Slope Stability Analysis Using Geocell and Micropile Anchors: a case study.	Sanjay Kumar Jain, Ranjan Kumar Dahal, Purushottam Dangol, I. P. Acharya, S. Tamrakar
16:30-16:45	83. Seepage and stability analysis of landslide dam at Syarpu Lake, Mid-west Nepal	Suresh Adhikari, Ranjan Kumar Dahal
16:45-17:00	84. Investigation of Kimtang Landslide using 2D Electrical Resistivity Tomography method in Nuwakot District, Nepal	Hari Ghimire, Umesh Chandra Bhusal, Narayan Gopal Ghimire
17:00-17:15	85. Strength Behavior of Cement Treated Kalimati Clay	Rewant Kumar Rawat, Suman Manandhar
17:15-17:30	86. Underline Causes of Landslide Hazards in Bangladesh: A case of 2017 event at Rangamati district	Mohammad Najmulla Islam
17:30-17:40	87. Determination of Optimum Strength of Ground using Soil-Cement (S/C) Mix Ratio	Sanjeev Singh Karki, Suman Manandhar, Vishnu Dangol, Ranjan Kumar Dahal
17:40-17:50	88. Use of Simple Tools for Determination of Weathering Grade and Landslide	Abhishek Koirala, Suman Manandhar, Vishnu Dangol, Achyutanand Bhandary
17:50-18:00	89. Engineering Geological and Geotechnical Evaluations of Stability Analysis of Budol-28 Kilo Slope, Banepa, Kavre	Anjaan Tamang, Suman Manandhar, Lalu Prasad Paudel

7 Closing Session

Chairperson: Dr. Ranjan Kumar Dahal

Hall - Nepa

Time	Activities
18:00 – 18:30	Speech by:
	Prof. Dr. Jinchun Chai, Prof. Dr. Christian Zangerl, Prof. Hemanta Hazarika
	Congress report:
	Dr. Suman Manandhar, Co-Convener
	Best students award announcement and distribution:
	Dr. Kumud Raj Kafle, Co-Convener
	Concluding Remarks:
	Dr. Ranjan Kumar Dahal, Convener

Master of Ceremony (MC): **Dr. Manita Timilsina, Treasurer, NSEG**

8 Post-Congress Excursion

Post-conference excursion will be held on 14-16, May 2019. All registered participants are requested to gather outside of Hotel Radisson at 7:30 AM.

2019.05.11: Detail Program for Post-Congress Excursion

Ex-2: Engineering Geology and Geotechnical Characteristics of Kathmandu-Pokhara area (three days)

Excursion two (Ex-2) is basically a field excursion tour on the first day and partly on second day. Kathmandu-Pokhara roadway is about 200 km, but in Nepal it takes about six hours to travel this distance at an average speed of 40 km/h. So, on the first day, we will see a few landslide sites on the way to Pokhara, and on the second day, we will go to an area in Pokhara valley and observe geology of the Pokhara valley. In Pokhara, especially in the morning time, we can see marvelous panoramic view of the Annapurna Range of the Himalaya. The schedule is basically as follows.

May 14 (Tue): Kathmandu to Pokhara via Prithivi Highway

7:30 Departure from Hotel Radisson

9:00 Site 1: Naubise –Thankot road tunnel project (**Stop 1**)

- Topography and geology of Thankot, west end of the Kathmandu Valley
- Naubise –Thankot road tunnel project
- Tunnel portal observation

10:00-10:30 Site 2: Galchhi (**Stop 2**)

- High-grade metamorphic rocks along the Main Central Thrust (MCT)
- Plain failure and Topping and mica-schists
- Topography of the Trishuli River and its terrace
- Debris flow fan and its deposits due to 1993 disaster.
- Pseudotachylite exposure area

11:00-12:00 Site 3: Aadamghat (**Stop 3**) at Gasoline Station

- Terrace deposits of the Trishuli River
- Landslide scraps on the northern mountain slope
- Landslide topography of the southern mountain slope

12:30 Site 4: Krishnabhir (**Stop 4**)

- Rainfall-induced landslide on August 2000.
- Toppling on large-scale landslide topography on the foot of southern mountain slope
- Low-cost countermeasure by using bio-engineering and water management

13:15-14:00 Site 5: Riverside Spring Resort (**Stop 5 Lunch**)

- Terrace and riverbed sediments of the Trisuli River

14:10-14:40 Site 6: Slow moving creep (**Stop 6**)

- Observations of slow moving creeps
- Evaluation of damages on road and maintenance of pavement

17:30 Arrival at White Pearl Hotel, Lakeside, Pokhara

- Check in & dinner at OR2K restaurant.

May 15 (Wednesday): Pokhara Valley

7:30 Departure from hotel

8:00-8:30 Site 7: Sarangkot (**Stop 7**)

- Topography of the Annapurna Range and the Seti River terrace disturbed quartzites of large-scale landslide
- Huge glacier lake outburst floods during the retrogression of Annapurna glacier in postglacial age
- Paleo-lake due to huge glacier lake outburst floods (debris flow) deposits
- Landslide topography and deposits of Sarangkot

9:30-10:00 Site 8: Armala (**Stop 8**)

- Topography of the Kali Khola valley
- Sediments of the paleo-lake dammed by huge glacier lake outburst debris flow deposits
- Occurrence and property of fine silty clay in lake deposits
- Occurrence and mechanism of sinkholes

11:00-11:30 Site 9: Ramghat (**Stop 9**)

- Topography of the Seti River and terrace
- Occurrence and property of the Pokhara Gravel
- Topographic change due to flood of the Seti River

12:00-13:30 Site 10: Lakeside of the Phewa lake (**Stop 10 - Lunch**)

- Topography of the Seti River Gorge and terrace
- Occurrence and property of the Pokhara Gravel
- Topographic change due to flood of the Seti River

14:30-15:00 Site 11: Davis fall (Patale Chhango) (**Stop 11**)

- Topography of the Pardi Khola Gorge and Davis Fall
- Occurrence of the Pokhara Gravel

15:00-15:30 Site 12: Gupteshwar Cave (**Stop 12**)

- Sink hole topography of Gupteshwar Cave
- Groundwater in Gupteshwar Cave and Davis Fall
- What is the Shiva statue?

16:00 Arrival at Lakeside and free time to have walk around Lakeside and have your favorite dinner of your own choice!

May 16 (Thursday): Departure from Pokhara

8:00 AM Breakfast at hotel and free time for shopping

9:30 AM onwards, return by road in same bus and drop in Hotel Radisson or return by air to Kathmandu (optional, need extra cost, contact Travel Desk for air ticket)