

# The 11<sup>th</sup> Asian Regional Conference of IAEG

28–30 November 2017

Kathmandu, Nepal

*"Engineering Geology for Geodisaster Management"*



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ARC-11  
Nepal Geological Society



**Lead Organizer**

**Nepal Geological Society**



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Geology and the Environment (IAEG)**

## Programs and Technical Sessions

### The 11<sup>th</sup> Asian Regional Conference of IAEG

#### **Associated Partners:**

National Planning Commission, Ministry of Irrigation	Nepal Academy of Science and Technology (NAST)
National Reconstruction Authority (NRA)	President Chure-Terai Madhesh Conservation Development Board
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Department of Geology, Tri-Chandra Campus	International Centre for Integrated Mountain Development (ICIMOD)
Nepal Electricity Authority	National Society for Earthquake Technology-Nepal (NSET Nepal)
Nepal Engineers' Association (NEA)	Nepal Tunneling Association Nepal Hydropower Association
Nepal Landslide Society	Himalayan Landslide Society
Nepal Hydrogeological Association	Society of Hydrologists and Meteorologists (SoHaM)

#### **International Partners:**

International Consortium on Geo-disaster Reduction (ICGdR)  
Center for Disaster Management Informatics Research, Ehime University  
Faculty of Engineering, Kagawa University, Japan  
Trumer Schutzbauten, Austria  
Japan Society of Engineering Geology (JSEG)  
Indian Society of Engineering Geology (ISEG)

#### **Conference Sponsors:**



National Planning Commission  
Ministry of Irrigation  
Department of Mines & Geology



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# 1 Executive Meetings

Executive meeting of International Association of Engineering Geology and Environment will be held in **Library Hall, Hotel Yak and Yeti**. Detail program will be provided during meeting.

Hall - Library		
Date	Time	Activities
2017/11/24	9:00-12:30	Executive Meeting of IAEG
	12:30-13:30	Lunch at Hotel Yak and Yeti
	13:30-17:00	Executive Meeting of IAEG
	18:30-20:30	Dinner at Hotel Yak and Yeti
2017/11/25	9:00-12:30	Executive Meeting of IAEG
	12:30-13:30	Lunch at Hotel Yak and Yeti
	13:30-17:00	Executive Meeting of IAEG
	18:30-20:30	Dinner at Hotel Yak and Yeti

# 2 Registration

Registration desk will be opened from 2017/11/26, 8:00 hours onward until 2017/11/30, 13:00 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 2017/11/26.

### 3 Council Meeting

Council meeting of International Association for Engineering Geology and Environment (IAEG) will be held in Crystal Hall of Hotel Yak and Yeti. Detail program will be provided during meeting.

<b>Hall - Crystal</b>		
<b>Date</b>	<b>Time</b>	<b>Activities</b>
2017/11/26	9:00-12:30	Council Meeting of IAEG
	12:30-13:30	Lunch at Hotel Yak and Yeti
	13:30-17:00	Council Meeting of IAEG
	18:30-20:30	Dinner at Hotel Yak and Yeti

### 4 Pre-conference excursion

Pre-conference excursion will be held on November 27, 2017. All registered participants are requested to gather outside of Hotel Yak and Yeti before 7:30 AM.

### 5 Exhibitions: Hall - Regal 2

Hall - Regal 2 will have exhibitions from sponsors, companies and institutions. The exhibitions will start from 8:00 hours of 28<sup>th</sup> November and end at 17:00 hours of 30<sup>th</sup> November.

<b>Booth Number</b>	<b>Name of Exhibitors</b>
<b>B-1</b>	International Geological Congress 2020 (IGC-2020)
<b>B-2</b>	International Geological Congress 2020 (IGC-2020)
<b>B-3</b>	Earth Scanning Association, Yokohama, Japan
<b>B-4</b>	Trumer Schutzbauten/ Geotech Solutions International, Nepal
<b>B-5</b>	KUMONOS Corporation, Osaka, Japan
<b>B-6</b>	OYO Corporation, Tokyo, Japan

<b>B-7</b>	OYO Corporation, Tokyo, Japan
<b>B-8</b>	International Consortium on Geodisaster Reduction (ICGdR), Japan
<b>B-9</b>	Nepal Geological Society
<b>B-10</b>	International Association for Engineering Geology and the Environment

## 6 YEG Event

The International Association for Engineering Geology and the Environment invited all members under 40 years of age to attend the ARC-11 Young Engineering Geologists event in Kathmandu on the 27th of November 2017.

The event is going to take place on the afternoon of the pre-conference excursion (27th of November 2017), and going to have short technical talks from 8 participants, refreshments and an ice-breaker evening in **Hotel Woodland, Darbarmarg, Kathmandu, Nepal**.

### 6.1 Tentative schedule of YEG event

Date	Time	Activities
2017/11/27	12:00	Pick up YEGs from excursion lunch stop at Bhaktapur
	13:00	Arrival at venue, download all presentations
	13:30 – 14:00	Introduction, keynote speaker from the executive committee
	14:00 – 15:00	Technical sessions
	15:00 – 15:30	Break- tea, coffee, and light snacks
	15:30 – 16:30	Technical sessions continue
	16:30 – 17:00	Break, decision for best presentation award
	17:00 – 18:00	Short question-answer session, award prize, closing presentation
	18:00 – 21:00	Ice break and dinner

## 7 Inaugural Ceremony

The 11<sup>th</sup> Asian Regional Conference (ARC-11) of IAEG (International Association of Engineering Geology and Environment) inauguration by the chief guest, Rt. Hon'ble Bidhya Devi Bhandari, President of Nepal.

### Hall - Regal 1

Time	Activities
7.00 - 8:30	Registration
9:00 – 10:25	Inauguration Ceremony
10:25-10:30	Photo Session – with executives and invited delegates
10:30	Closing of the ceremony and High Tea

Master of Ceremony (MC): ***Kriti Bhattarai***

## The 11<sup>th</sup> Asian Regional Conference of IAEG

November 28–30, 2017, Kathmandu, Nepal

### 8 Conference Day 1: 28th November

#### 8.1 The 2016 Hans-Cloos Lecture of IAEG

**Chairperson:** *Prof. Dr. Scott F. Burns, President, International Association of Engineering Geology and Environment*

**Co-Chairperson:** *Dr. Ranjan Kumar Dahal*

#### Hall - Regal 1

Time	Title of Papers	Authors
11.00-12:00	1. Geo-engineering aspects on the structural stability and protection of historical man-made rock structures: An overview of Cappadocia Region (Turkey) in the UNESCO's World Heritage List	<b>Reşat Ulusay and Ömer Aydan</b>

#### 8.2 Day 1 - Keynote Presentation Session - 1

**Chairperson:** *Dr. Danda Pani Adhikari*

**Co-Chairperson:** *Dr. Xuanmei Fan*

**Rapporteurs:** *Mr. Bharat Bhandari and Mr. Govinda Pathak*

#### Hall - Regal 1

Time	Title of Papers	Authors
12:00-12:30	2. A major role for engineering geologists and geotechnical engineers internationally - help produce resiliency plans for major hazards with an example from Oregon, USA	<b>Scott F. Burns</b>
12:30-13:00	3. Gravitational slope deformations that precede catastrophic landslides triggered by rainstorms and earthquakes	<b>Masahiro Chigira and Noriyuki Arai</b>
<b>Introductory presentation from Conference Sponsor:</b>		
13:00-13:05	<i>Introduction to Trumer Schutzbauten/Geotech Solutions International, Dr. Manita Timilsina</i>	
13:05-14:00	Lunch Break – Lunch at Madhuban Garden, Hotel Yak and Yeti	

### 8.3 Day 1 - Parallel Technical Sessions

#### **Technical Session I: Engineering Geology of Landslides – Landslide Mechanism**

**Chairperson:** *Prof. Dr. Faqwan Wu*

**Co-Chairperson:** *Mr. Churna Bahadur Wali*

**Rapporteurs:** *Mr. Suman Pandey and Ms. Sabina Khatri*

#### Hall - Regal 1

Time	Title of Papers	Authors
14:00-14:15	1. Mechanism of Landslides along road in the Jiuzhaigou scenic spot, Sichuan, China	<b><i>Yun-sheng Wang, Bo Zhao, Jia Li, Tong Shen, Qian-qian Feng</i></b>
14:15-14:30	2. Rainfall failure mechanism of Bedding Slope with inclined Argillic Interbed	<b><i>Li Long-qi, JU Neng-pan, Deng Tianxin, Yanbin Jiang, Zhang Shuai</i></b>
14:30-14:45	3. Hydrology and Hydrogeology Study in Musi Banyuasin District, South of Sumatera	<b><i>Asti Sulastri, Jejen Ramdani, M Fauzan Septiana, Andyono B. Santoso</i></b>
14:45-15:00	4. Mechanism and Disasters Characteristics of Complex Structural Rock Mass Along the Rapidly Uplift Section at the Upstream of Jinsha River	<b><i>Chen Jianping, Wang Qing</i></b>
15:00-15:15	5. Numerical study of shear strength of non-persistent open joints with different normal stresses using PFC2D	<b><i>Chonglang Wang, Shengwen Qi</i></b>
15:15-15:30	6. Calibration and performance of numerical models to simulate the recent Xinmo landslide (Sichuan, China) and assess secondary hazard	<b><i>Gianvito Scaringi, Xuanmei Fan, Qiang Xu, Guillem Domènech, Fan Yang, Lanxin Dai</i></b>
15:30-15:45	7. The characteristics of landslides in metamorphic rock area of the Duhe river basin in China	<b><i>Guangli Xu, Zhigang Li, Xin Zhao, Yongpeng Fu</i></b>
15:45-16:00	8. Study of co-seismic rockfalls in Greece	<b><i>Haris Saroglou, and Dimitrios Zekkos</i></b>
16:00-16:15	Tea Break	



**Technical Session II: Engineering Geology of Landslides - Landslide Mechanism****Chairperson:** Prof. Dr. Ko-Fei Liu**Co-Chairperson:** Dr. Moti Lal Rijal**Rapporteurs:** Mr. Rabindra Dhakal and Ms. Indira Shiwakoti

<b>Hall - Regal 1</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
16:15-16:30	9. Lithostratigraphical control on Landslide in Babai Khola watershed of the Sub Himalayan Zone, Nepal	<b>Bharat Prasad Bhandari</b> and Subodh Dhakal
16:30-16:45	10. Shear behavior of unfilled granitic joints with reference to weathering grade	<b>Bikash Kumar Ram</b> and Arindam Basu
16:45-17:00	11. A study on the contribution of roughness component to peak friction angle of rock discontinuities	<b>Hemant Kumar Singh</b> and Arindam Basu
17:00-17:15	12. A Conceptual Model of Geomorphological Evolution in a Gigantic Paleo-landslide Site	Ting-Hua Wei, Yen-Chieh Huang, <b>Kuo-Wei Li</b> , Yii-Wen Pan, Jyh-Jong Liao
17:15-17:30	13. Stabilization measures of stream planform in the Siwalik Hills of Nepal – evaluation results of a pilot project	<b>Daisuke Higaki</b> , Naoto Koiwa, Mio Takahashi, Sohan Kumar Ghimire, Tara Bhattarai and Kishor Kumar Karki
17:30-18:00	Break for Welcome Reception Preparation	
18:00-21:00	Welcome Reception – Madhuban Garden, Hotel Yak and Yeti	

**Technical Session III: Foundation, Tunneling, Underground geology, Groundwater****Chairperson:** Prof. Dr. Masakatsu Miyajima**Co-Chairperson:** Mr. Ram Hari Sharma**Rapporteurs:** Mr. Santosh Adhikari and Mrs. Tara Pokhrel

<b>Hall - Dynasty</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
14:00-14:15	14. Conceptual Design of Ie - Motobu Subsea Tunnel, Okinawa, Japan	<b>Ömer Aydan</b> , Naohiko Tokashiki, and Koichi Suzuki
14:15-14:30	15. Compression Behavior of Reconstituted Clay: A Study on Kalomato	<b>Bhim Kumar Dahal</b> and Jun-Jie Zheng

14:30-14:45	16. Inherent and stress-induced anisotropy of hydraulic conductivity around a rock tunnel - equivalent continuum approach	<b>Huang-Kuei Chu, Po-Sung Lai, and Jia-Jyun Dong</b>
14:45-15:00	17. Quantitative GSI determination of Singapore's sedimentary rock mass	<b>Kar Winn and Louis Ngai Yuen Wong</b>
15:00-15:15	18. Groundwater Fluctuation Simulation in Pagelaran Landslide, Cianjur, Indonesia	<b>Twin H.W. Kristyanto, Asriza, Reza Syahputra, and Tito L. Indra</b>
15:15-15:30	19. System Reliability Analysis of a Circular Tunnel Face Stability Considering a Two-layered Ground	<b>Peng Zeng, Tianbin Li, Salvador Senent, and Rafael Jimenez</b>
15:30-15:45	20. Landslide hazard assessment for pipeline of Natural Gas Transport - Experiences from TAP pipeline along Greek and Albanian territory	<b>Vassilis P. Marinou, G. Stoumpos, G. Papathanassiou, and K. Papazachos</b>
15:45-16:15	Tea Break	

**Technical Session IV: Engineering Geology in sustainable development and urban planning**

**Chairperson:** *Dr. Ömer Aydan*

**Co-Chairperson:** *Dr. Shengwen Qi*

**Rapporteurs:** *Mr. Prabin Tumbapo and Mr. Swaroop Singh Karki*

**Hall - Dynasty**

<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
16:15-16:30	21. Liquefaction-induced Damage to Residential Houses and Its Effects to Health Problems of Residents in the 2016 Kumamoto Earthquake in Japan	<b>Yuko Serikawa and Masakatsu Miyajima</b>
16:30-16:45	22. Dating a large-scale debris flow event using terrestrial cosmogenic nuclide: an attempt in Marshyangdi River, central Nepal	<b>Yuki Matsushi, Hiroshi Yagi, and Hiroyuki Matsuzaki</b>
16:45-17:00	23. Assessment of exogenous geological hazards in Moscow	<b>Olga Eremina, I. Kozliakov, and O. Mironov</b>
17:00-17:15	24. Determination of deep subsurface shear wave velocity structure in the central part of the Kathmandu valley, Nepal using broad band seismograph arrays for long period microtremor	<b>Mukunda Bhattarai, Lok Bijaya Adhikari, Bharat Prasad Koirala, Dinesh Nepali, Santosh Dhakal, Suresh Shrestha, Toshiaki Yokoi, and Takumi</b>

		<i>Hayashida</i>
17:15-17:30	25. SMRM fieldwork platform for rock engineering	<b>Jie Wu</b>
17:30-18:00	Break for Preparation	
18:00-21:00	Welcome Reception – Madhuban Garden, Hotel Yak and Yeti	

**Technical Session V: Geohazards in Asia**

**Chairperson:** *Prof. Dr. Reşat Ulusay*

**Co-Chairperson:** *Mr. Dharma Raj Khadka*

**Rapporteurs:** *Mr. Narayan Adhikari and Mr. Prakash Pokhrel*

**Hall - Regency**

<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
14:00-14:15	26. Paleo-seismic archive in the Kathmandu basin sediments: an assessment of seismic hazard scenario in the central Himalaya	<b>Ananta Prasad Gajurel and Tetsuya Sakai</b>
14:15-14:30	27. The observation of the total number of fractures in Toba Caldera to discover the potential of phreatic type eruption from Mount Toba	<b>Faris Primayudha, Choirul Risman, Muhammad Ali Akbar, Rifqi Aditya, Safira Nurul Imani</b>
14:30-14:45	28. Dynamic Quaternary magmatism and volcanic activities in the Japan Alps as revealed by U-Pb zircon dating	<b>Hisatoshi Ito</b>
14:45-15:00	29. Tsunami Boulders and Its Implications on the Mega Earthquake Potential along Ryukyu Archipelago, Japan	<b>Ömer Aydan and Naohiko Tokashiki</b>
15:00-15:15	30. Probabilistic damage assessment of strong earthquake scenarios in Koyna region, India	<b>S. M. S. Prakash Dev and R. Nagarajan</b>
15:15-15:30	31. Volcaniclastic Stratigraphy of Tangkuban Perahu Volcano and How It is Used to Predict the Future Hazardous Eruptions	<b>Abriyanto Putra S. N., Aji Ahmed M., Kevin Estonio, Maria Johana M. W., Raihan Zidan I, and Twin Hosea W. K.</b>
15:30-15:45	32. Asperity models for earthquakes based on co-seismic displacements	<b>Zhengfang Li and Bengang Zhou</b>
15:45-16:00	33. Comparative study between Debris Flow of Wide-Gentle and Narrow-Steep Channel based on Hazard Mechanism and	<b>Mei Han</b>

	Prevention Measures	
16:00-16:15	Tea Break	

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**Technical Session VI: Rockfall hazard and its mitigation**

**Chairperson:** *Dr. Markus Haidn*

**Co-Chairperson:** *Mr. Mukunda Raj Poudel*

**Rapporteurs:** *Mr. Krishna Shrestha and Ms. Sunu Dawadi*

**Hall - Regency**

<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
16:15-16:30	34. Axial monotonic behavior of fully grouted tension anchor in rockfall barrier foundation.	<b>Sunil Poudyal</b> , <i>Darshan Babu Adhikari, Manita Timilsina, and Ranjan Kumar Dahal</i>
16:30-16:45	35. A case study of rockfall at Upper Bhotekoshi Hydroelectric Project site to provide suitable mitigation measures	<b>Darshan Babu Adhikari</b> , <i>Manita Timilsina, Ranjan Kumar Dahal and Akal Bahadur Singh</i>
16:45-17:00	36. A impact-induced fragmentation model for predicting the runout of brittle fragmentable rockfall	<b>Gang Luo</b> , <i>Jin Tao, Hu Xiewen, Fu Jiankang, and Mei Xuefeng</i>
17:00-17:15	37. Consequences of rockfall hazard in the Imja Glacial Lake	<b>Durga Khatiwada</b> and <i>Ranjan Kumar Dahal</i>
17:15-17:30	38. Rock fall run out analysis: Batu Caves, Selangor, Malaysia	<b>Goh Thian Lai</b> , <i>Allie Sofyiana Serasa, Abdul Ghani Md Rafek, Norbert Simon, and Tuan Rusli Mohammed</i>
17:30-18:00	Break for Welcome Reception Preparation	
18:00-21:00	Welcome Reception – Madhuban Garden, Hotel Yak and Yeti	

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**Technical Session VII: The 2015 Gorkha Earthquake****Chairperson:** Prof. Dr. Ricardo Oliveira**Co-Chairperson:** Ms. Monika Jha**Rapporteurs:** Mr. Sanjiv Regmi and Mr. Balaram Upadhayay**Hall - Crystal**

<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
14:00-14:25	39. If Poorly Constructed Buildings are the Major Source of Earthquake Risk, Fix the Buildings: Lessons Learned from Nepal's Gorkha Earthquake Sequence of 2015  <i>(Invited Lecture)</i>	<b>Amod Mani Dixit</b>
14:25-14:40	40. Geomorphological disturbance and damage resulting from the April-May 2015 earthquake sequence in Solukhumbu District (Nepal)	<b>Monique Fort, Narendra Raj Khanal, Buddhi Raj Shrestha, and Joëlle Smadja</b>
14:40-14:55	41. Implications for development along the Bhote Koshi River corridor, Nepal-China border area, from mass-wasting induced by the 2015 Gorkha earthquake	<b>Ren-mao Yuan, Guo Wu, Xinfu Zeng, Dickson Cunningham, Qing Zhou, and Xiao-ping Yang</b>
14:55-15:10	42. Distribution of earthquake triggered landslides by the 2015 Gorkha -earthquake in the Nepal Himalaya	<b>Kaushal Raj Gnyawali and Basanta Raj Adhikari</b>
15:10-15:25	43. Landslides triggered by the Gorkha, Nepal Mw 7.8 earthquake of 25 April 2015: A comparison with the 2008 Wenchuan, China Mw7.9 event	<b>Chong Xu, and Yingying Tian, Lingling Shen, Xueqiang Huang, Junxue Ma, Xi Chen, Siyuan Ma, Xiwei Xu</b>
15:25-15:40	44. Landslides Triggered by the 2015 Gorkha Earthquake and Analysis of Their Long-Lasting Impact	<b>Hikaru Tomita, Alessandra Mayumi Nakata, Kazuo Konagai, Masataka Shiga, Takashi Matsushima, Takaaki Ikeda and Rama Mohan Pokhrel</b>
15:40-15:55	45. Geotechnical Discussion on the Localized Deformation in Kausalter Caused by the Gorkha Earthquake, 2015	<b>Masataka Shiga, Kazuo Konagai<sup>1</sup>, Rama Mohan Pokhrel, and Takaaki Ikeda</b>
15:55-16:15	Tea Break	

**Technical Session VIII: The 2015 Gorkha Earthquake****Chairperson:** Prof Dr. Masahiro Chigira**Co-Chairperson:** Mr. Sudhir Rajaure**Rapporteurs:** Mr. Dilendra Pathak and Mr. Mahesh Khanal

<b>Hall - Crystal</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
16:15-16:30	46. National Seismic network in the aftermath of the devastating 2015 Gorkha earthquake	<b>Lok Bijaya Adhikari</b> , Bharat Koirala, Mukunda Bhattarai, Thakur Kandel, Ratna Mani Gupta, Chintan Timsina, Tirtaraj Dahal, Kapil Maharjan, Eric Sauvage, Corentin Quedec, Jean-Baptiste Leblanc, and Laurent Bollinger
16:30-16:45	47. Nepal Earthquake 25 April 2015: Hydro Projects Damaged, Risks and Lessons Learned for Design Considerations	<b>Subas Chandra Sunuwar</b>
16:45-17:00	48. An approach to assessing the affordability of landslide risk management strategies for communities affected by the 2015 Gorkha Earthquake in Nepal	<b>Stephen Revill</b> , Tara Nidhi Bhattarai, Megh Raj Dhital, Kishor Acharya, Lekh Prasad Bhatta
17:00-17:15	49. Deterministic seismic hazard assessment made in 2013 for Budhi Gandaki dam, Nepal, and its comparison with the 2015 earthquakes	<b>Julien Rey</b> , Cécile Allanic, Marie L'Hostis, Laurent Bollinger, Thierry Winter, and <b>Myriam Belvaux</b>
17:15-17:30	50. Understanding Landscape Response to the 2015-Gorkha Earthquake in the Northwestern Part of Gorkha District (west of the main epicenter) for Geohazard Mitigation and Safer Reconstruction	<b>Danda Pani Adhikari</b>
17:30-18:00	Break for Preparation	
18:00-21:00	Welcome Reception – Madhuban Garden, Hotel Yak and Yeti	

## 8.4 Day 1 - Poster Session - 1

All postal presenters need to place their poster in the Regal 2 Hall, before 14:00 hours of 28<sup>th</sup> November. Acceptable poster size is only A0. The Poster Session starts from 14:00-17:00. Tea, coffee and snacks will be served inside the hall during poster session. Please remove poster/s after 17:00 hours. The organizer will remove it after 17:30.

**Time: 14:00-17:00**

### Hall – Regal 2

Poster No.	Title of Papers	Authors
<b>Themes: Engineering Geology of Landslides</b>		
1.	Landslide susceptibility mapping along central part of the Badi Gad Fault-an active fault of the Lesser Himalaya in Juhan-Shantipur area of Gulmi district, west-central Nepal	<b>Sunil Bikram Thakuri</b> <i>and Kabi Raj Paudyal</i>
2.	Engineering Geology of Old Rock Topple-Wedge Slide, Malekhu Area, Central Nepal Lesser Himalaya	<b>Mahesh Raut</b> <i>and</i> <b>Naresh Kazi Tamrakar</b>
3.	A case study on In-situ Shear Strength Measurement of Topsoil and Hazard Evaluation of Shallow Landslides using Soil Strength Probe	<b>Satoru Norimizu,</b> <i>Tetsuo Kanai, Ken-ichi Asai<sup>1</sup>, Yoshinori Yajima and Yasuhito Sasaki</i>
4.	Distribution map of landslides triggered by the 2015 Gorkha earthquake, Nepal	<b>Ching-Ying Tsou,</b> <i>Masahiro Chigira, Daisuke Higaki, Hiroshi Yagi, Vishnu Dangol, Shanmukhesh Amatya, Kazunori Hayashi, and Hiroki Kato</i>
5.	Analysis of Two Different Landslides Concern on Mitigation Design and Cost Estimation Based on Ground Condition and Mechanism of Chure Region, Kailali District	<b>Gaurab Singh Thapa,</b> <i>Subodh Dhakal and Suman Panday</i>
6.	Landslide Susceptibility Assessment of the Chure Khola Catchment area of the, Siwalik Region Central Nepal	<b>Prakash Gyawali</b> <i>and</i> <b>Naresh Kazi Tamrakar</b>
7.	Comparison of Information Value and Weight of Evidence Models in Landslide Hazard Assessment in Chure Region: A Case from Surkhet	<b>Radhika Maharjan,</b> <i>Subodh Dhakal and Niraj Bal Tamang</i>
8.	Dissection rate of landslide topography in Japan	<b>Daisuke Kanbara,</b> <i>Shuichi Hasegawa,</i>

		<i>and Makoto Yanagida</i>
9.	Hydrological Impacts on Mechanism of Mass Wasting in Sub-Himalayan Region with Spatial Reference to Rock and Soil Condition	<b>Suman Panday</b> and <i>Subodh Dhakal</i>
10.	Recognition of Earthquake Induced Landslide in Khurkot Area, Central Nepal	<b>Deepak Ghimire</b> , <i>Jyoti Khatiwoda, Suresh Adhikari, Nabin Sapkota, Aditya Dhungana, Ranjan Kumar Dahal, and Suman Manandhar</i>
11.	Dormant landslides distributed in upper course of Sun Kosi watershed and landslides induced by Nepal Gorkha Earthquake 2015	<b>Hiroshi Yagi</b> , <i>Kazunari Hayashi, Daisuke Higaki, Ching-Ying Tsuo and Go Sato</i>
12.	The Clarence landslide triggered by the 2016 Mw7.8 Kaikoura earthquake, New Zealand	<b>Peng Guo</b> , <i>Ren-mao Yuan, Zhu-jun Han, and Hong-liu Ran</i>
13.	Co-seismic large Lateral Earth Slide associated with the 2016 Kumamoto Earthquake Mw7.0 revealed from Differential LiDAR DEM Image Analysis	<b>Sakae Mukoyama</b> and <i>Tomoyuki Takami</i>
14.	Typology of Landslides caused by 2016 Kumamoto Earthquake in Japan	<b>Tomoyuki Takami</b> and <i>Takashi Inokuchi</i>
15.	Infinite slope stability analysis based on time distribution of rainfall in Ulleung-do, Korea	<b>Seong-Woo Moon</b> and <i>Yong-Seok Seo</i>
16.	Assessment on Failure of the Road Along BP Highway at Shitalpati, Sindhuli, Central Nepal	<b>Arun Dhoj Adhikari</b> , <i>Birat Shrestha, Nabin B.K., Roman Gantawa, Ranjan Kumar Dahal and Suman Manandhar</i>
17.	Landslide countermeasure and maintenance of slope surface of highway adjacent to the Median Tectonic Line	<b>Hironobu Itoh</b> , <i>Junji Uchida, Kohei Minami, Shinji Sakai and Yuhei Nishikawa</i>
18.	National-wide shallow landslide early warning system in Taiwan: modeling, assessment, and validation	<b>Ching-Fang Lee</b> , <i>Cheng-Lung Chiu, and Li-Yuan Fei</i>



<b>Theme: Neotectonics</b>		
19.	Fault trace investigation of the blind segment of the Sanyi fault, Central Taiwan	<b>I-Chin Yen, Yueh-luan Ko, Yen-Chyun Liu, Jin-Wei Hsu, Shih-Ting Lu, Wen-Jeng Lee, and Piao Lee</b>
20.	Relationship between Earthquake Distribution Characteristic and Present-day Tectonic Stress Magnitudes around the Korean Peninsula	<b>Inho Soh and Chandong Chang</b>
21.	Characteristics of the Chekualin Fault in the Yanchao Area, Southern Taiwan	<b>Chuan Ding, Chengchou Lee, and Shuiken Ho</b>
22.	Mapping and characterization of Badi Gad Fault, an active strike-slip fault of the Lesser Himalaya, on the basis of petrological and microstructural studies in Ridi-Shantipur area of Gulmi district, west-central Nepal	<b>Manish Singh Chaudhary and Kabi Raj Paudyal</b>
23.	The Study on the Shear Zone of Plane less Fault, in Neogene Sedimentary Beds in Miura Peninsula, South of Tokyo	<b>Takao Chaishi and Toru Arai</b>
24.	Geological and engineering geological study of Imja Glacial Lake and its adjoint area, eastern Nepal	<b>Keshav Jaisi and Kabiraj Paudyal</b>
25.	Investigation of liquefaction susceptibility at different shaking level in Kathmandu valley	<b>Deepak Thapa and Narayan Parsad Marasini</b>
<b>Theme: The 2015 Gorkha Earthquake</b>		
26.	Landsliding distribution relative to the 2015 Mw7.8 Gorkha Earthquake, Nepal	<b>Marin Clark, Dimitrios. Zekkos, Kevin Roback William Medwedeff, William Greenwood, A. Joshua West, Deepak Chamlagain, and Bibek Giri</b>
27.	An Approach of Preparing Earthquake Induced Landslide Hazard Map: A Case Study of Kakani Rural Municipality, Nuwakot District, Central Nepal	<b>Harish Dangi and Tara Nidhi Bhattarai</b>
28.	Source mechanism of 2015 Gorkha Earthquake and its	<b>Kiran Pandey, Navin Thapa and Subesh</b>

	biggest aftershock	<i>Ghimire</i>
29.	Frequency Dependent Deformation Pattern in Kathmandu Valley Due to 2015, Mw 7.8, Gorkha Earthquake	<b>Navin Thapa, Kiran Pandey, Kamala Kant Acharya, and Subesh Ghimire</b>
30.	Lessons about landslides and debris flows in the Nepal Himalaya from the 2015 Gorkha earthquake and following monsoons	<b>A. Joshua West, Paul Quackenbush, Max Dahlquist, Julie Martinez, Marin Clark, Dimitrios. Zekkos, Deepak Chamlagain, and Bibek Giri</b>
<b>Theme: Engineering Geology in sustainable development and urban planning</b>		
31.	Geoenvironmental vulnerability to exogenous geohazards upon risk assessment and mapping	<b>Irina Kozliakova, Olga Eremina, Pavel Ivanov, and Maria Komarevskaya</b>
32.	Mapping geological risk upon the underground linear construction in megacities	<b>Irina Kozlyakova, Nadezhda Anisimova, Olga Eremina, and Oleg Mironov</b>
33.	Approaches to assessment of the projected tunnel impact on waterlogging and groundwater contamination	<b>Irina Galitskaya and Leonid Toms</b>
34.	A calibration test of karst sinkhole collapse monitoring device by optical time domain reflectometry (Botdr) technique	<b>Guan Zhen-de and Jiang Xiao-zhen</b>
<b>Theme: Engineering geology and geodisaster management</b>		
35.	Study on the deformation structure developed in a gravel layer by fault movement based on model experiments	<b>Shiro Tanaka</b>
36.	The study on the mechanism of hydraulic Fracturing in cohesive zone of embankment dam cores (Literature Review)	<b>Samjhana Poudel, Samson Nagambi, and Adegoke Olubanwo</b>
37.	Methodical approaches to the assessment of natural risks in urban areas	<b>Valentina Burova</b>

**The 11<sup>th</sup> Asian Regional Conference of IAEG**

November 28–30, 2017, Kathmandu, Nepal

**9 Conference Day 2: 29th November****9.1 Day 2 – Keynote Presentation Session - 2****Chairperson:** *Prof. Dr. Scott Burns***Co-Chairperson:** *Mr. Lila Nath Rimal***Rapporteurs:** *Mr. Dev Kumar Shangboo and Mr. Ishwor Thapa***Hall – Regal 1**

Time	Title of Papers	Authors
<b>Keynote Lectures</b>		
9:00-9:30	4. Managing geological situations at hydropower projects in Himalayas	<b><i>Gopal Dhawan</i></b>
9:30-10:00	5. Himalayan geological setting and status of engineering geological research and education in Nepal.	<b><i>Lalu Prasad Poudel</i></b>
10:00-10:30	6. Statistic-Mechanical model of Rock Mass and its applications	<b><i>Faquan Wu</i></b>
10:30-11:00	Tea Break	

**9.2 Day 2 – Keynote Presentation Session - 3****Chairperson:** *Prof. Dr. Shuichi Hasegawa***Co-Chairperson:** *Dr. Ananta Prasad Gajurel***Rapporteurs:** *Ms. Tara Pokharel and Mr. Manoj Khatiwada*

11:00-11:30	7. Challenges for operational forecasting and early warning of rainfall induced landslides	<b><i>Fausto Guzzetti</i></b>
11:30-12:00	8. Seismotectonics and seismic hazard potential of Northwest Himalaya	<b><i>Prabhas Pande</i></b>
12:30-13:00	9. Engineering geological approaches adopted in reconstruction and relocation of the damaged settlements in the aftermath of 2015 Gorkha Earthquake	<b><i>Tara Nidhi Bhattarai, Stephen Richard Revill, and Kamal Ghimire</i></b>
13:00-13:10	Introduction to <b>36<sup>th</sup> International Geological</b>	<b><i>36<sup>th</sup>IGC Secretariat,</i></b>

	<b>Congress</b> jointly organized by South Asian countries	<b>India</b>
13:10-14:00	Lunch break – Lunch at Madhuban Garden, Hotel Yak and Yeti	

### 9.3 Special Lecture

**Chairperson:** *Dr. Ganesh Nath Tripathi*

**Co-Chairperson:** *Dr. Rama Mohan Pokhrel*

**Rapporteurs:** *Mr. Milan Magar and Mr. Prakash Pokhrel*

#### Hall - Regal 1

Time	Title of Program
16:15-17:30	<b>Special Lecture on “How to write Scientific Papers?”</b>
<b>Lecturer</b>	<b><i>Prof. Dr. Martin G. Culshaw</i></b> - Chief Editor of <i>Bulletin of Engineering Geology and Environment</i>

### 9.4 Invited Lectures

**Chairperson:** *Dr. Haris Saroglou*

**Co-Chairperson:** *Dr. Krishna Devkota*

**Rapporteurs:** *Mrs. Sunita Bhattarai and Mr. Rajendra Acharya*

#### Hall - Regency

Time	Title of Papers	Authors
16:15-16:40	51. Hunting for the Traces of Great Himalayan Earthquakes: Lidar Imaging of Nepal's Frontal Thrust's Seismic History	<b><i>Soma Nath Sapkota, Paul Tapponnier, Çağıl Karakaş, Paramesh Banerjee, Aurelie Coudurier Curveur, Sorvigenaleon Ildefonso, and Santosh Dhakal</i></b>
16:40-17:05	52. Arrabida Natural Park, Setubal, Portugal - Stabilization of Cliffs over the Road EN 379-1	<b><i>Ricardo Oliveira</i></b>
17:05-17:30	53. Characteristics of landslides in Nepal and their hazard evaluation	<b><i>Prem Bahadur Thapa</i></b>

## 9.5 Day 2 - Parallel Technical Sessions

### **Technical Session IX: Engineering Geology of Landslides – Monitoring and Early Warning System**

**Chairperson:** *Prof. Dr. Martin Gordon Culshaw*

**Co-Chairperson:** *Dr. Basanta Adhikari*

**Rapporteurs:** *Mr. Arjun Bhattarai and Mr. Mahesh Raut*

### Hall – Regal 1

Time	Title of Papers	Authors
14:00-14:15	54. LANDSLIDE Multi-Hazard Risk Assessment, Preparedness and Early Warning in South Asia: Integrating Meteorology, Landscape and Society (LANDSLIP)	<b>Helen Reeves, Bruce Malamud, and LANDSLIP Consortium</b>
14:15-14:30	55. A complete watershed monitoring system in ShengMu village, Taiwan	<b>Ko-Fei Liu and Shi-Shao Wei</b>
14:30-14:45	56. The use of remotely piloted aircraft systems for characterization and monitoring of landslides	<b>Daniele Giordan, Giorgio Lollino, Paolo Allasia, Marco Baldo, and Aleksandra Wrzesniak</b>
14:45-15:00	57. Application of Advanced Japanese Practices of 3D Scanning and Monitoring Technologies to National Restoration and Preservation Projects in Kathmandu Valley.	<b>Proshchanka Dzianis</b>
15:00-15:15	58. Landslide EVO: An Interdisciplinary Citizen Science Research Project to Build Local Resilience Against Hydrologically Induced Landslides and Floods in Mountain Regions of Nepal	<b>Madhab Uprety, Sumit Dugar, Jonathan D. Paul, Wouter Buytaert, Megh Raj Dhital, Puja Shakya, Bharat Raj Pant, Amrit Dhakal and the Landslide EVO Team</b>
15:15-15:30	59. Integrated monitoring system for landslides impacting linear infrastructures: the case of the Pietrafitta earth flow (Southern Italy)	<b>Paola Revellino, Luigi Guerriero, Gerardo Grelle, Neri Mascellaro and Francesco M. Guadagno</b>
15:30-15:45	60. A comprehensive monitoring information system for landslide based on three-dimensional visualization and network	<b>Xie Mowen, Jia Yanchang, and Du Yan</b>
15:45-16:00	61. Surface deformation monitoring and potential landslides detection in Loess area based on UAV	<b>Qiang Xu, Yuanzhen Ju, Dalei Peng, Xiujun Dong, and Xing Qi</b>

16:00-16:15	Tea Break
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**Technical Session X: Engineering Geology of Landslides – Landslide Mechanism**

**Chairperson:** *Dr. Fausto Guzzetti*

**Co-Chairperson:** Mr. Narayan Gopal Ghimire

**Rapporteurs:** *Mr. Vaskar Khatiwada and Ujjwal Maskey*

<b>Hall - Regency</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
14:00-14:15	62. The evolution of Kimmantung Cliff	<b><i>Keng-Hao Kang, Ming-Wan Huang, Shun-Hsing Yang, Yii-Wen Pan and Jyh-Jong Liao</i></b>
14:15-14:30	63. Study on coarse soil of Chenjiaba Landslide by Ring-Shear test	<b><i>Lina Ma and Shengwen Qi</i></b>
14:30-14:45	64. Deep-seated gravitational slope deformations in central Japan: their topographic features, development history, and relationship with the geologic structures	<b><i>Satoru Kojima and Hidehisa Nagata</i></b>
14:45-15:00	65. Geomorphic Investigation of the Western part of the Chitwan Intermontane Valley, Central Himalayas.	<b><i>Gyanendra Gaire</i></b>
15:00-15:15	66. Slope stability in an expansive clay deposit from Regina, Saskatchewan, Canada	<b><i>Rashedul H. Chowdhury and Shahid Azam</i></b>
15:15-15:30	67. Physical model experimental study of bank Collapse in Three Gorges Reservoir area under water level change condition	<b><i>Shuai Teng, Shimei Wang, Wenpeng Yu, and Peng Lu</i></b>
15:30-15:45	68. Predictions of saturation process on partially desaturated soil	<b><i>Narayan Prasad Marasini and Mitsu Okamura</i></b>
15:45-16:15	<b>Tea Break</b>	

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**Technical Session XI: Engineering Geology and Geodisaster Management, Engineering Geology of Landslide - Mechanism**

**Chairperson:** Prof. Dr. Tara Nidhi Bhattarai

**Co-Chairperson:** Ms. Shova Singh

**Rapporteurs:** Mr. Niraj Bal Tamang and Mr. Santosh Adhikari

<b>Hall - Dynasty</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
14:00-14:15	69. Estimation of Strong Ground Motion in Yogyakarta, Indonesia by Stochastic Green's Function Method	<b>Nwai Le Ngal, Junji Kiyono, Subagyo Pramumijoyo, Iman Satyarno, Kirbani and Sri Brotopuspito</b>
14:15-14:30	70. Research on the characteristics and instability mechanism of K3 altered basic rock slope in Lushi highway	<b>Xiaoyan Zhao and Xun Li</b>
14:30-14:45	71. Rock mass property evaluation based on borehole wall images by an ultrasonic scanner (USS) at Horonobe Underground Research Laboratory, Japan	<b>Yasunori Otsuka, T. Ishikawa, K. Tajima, T. Wada, Ö. Aydan, N. Tokashiki, T. Sato, and K. Aoyagi</b>
14:45-15:00	72. Mechanical Characterization of Rock Materials with reference to Assigned Weathering Grades: Problems and Promises	<b>Arindam Basu</b>
15:00-15:15	73. Early-warning for pilling-induced sinkhole in Xiamao village of Guangzhou city, China	<b>Yan Meng, Long Jia, and Mingtan Lei</b>
15:15-15:30	74. An attempt to predict ground motion using scenario earthquakes	<b>Sudhir Rajaure</b>
15:30-15:45	75. Geological investigation of karst terrain and geophysical detection of underground cavities in the Kusma-Baglung area, west Nepal	<b>Lalu Prasad Paudel, Sudip Lamsal, Krishna Prasad Subedi, Nabaraj Sapkota, Arjun Bhandari, Ishor Gyanwali, Umesh Chandra Bhusal, Sudhir Rajaure, Kabi Raj Paudyal, Basanta Raj Adhakari</b>
15:45-16:15	Tea Break	

**Technical Session XII: Engineering Geology of Landslides – Hazard and Susceptibility****Chairperson:** *Dr. Helen Reeves***Co-Chairperson:** *Mr. Tika Ram Paudel***Rapporteurs:** *Mr. Madan Raj Pokhrel and Ms. Alina Karki*

<b>Hall - Dynasty</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
16:15-16:30	76. FEM-based Stability Analysis of Jure Landslide Slope in Nepal	<b>Netra P. Bhandary, Ram C. Tiwari, Ryuichi Yatabe, Sanjay K. Jha, and Nijjal Shrestha</b>
16:30-16:45	77. Landslide Hazard Mapping using Limit Equilibrium Method with GIS Application of Roadway Traversing Mountain Slopes: The case of Kitaotao Bukidnon, Philippines	<b>Ma. Catherine Q. Arca, Glen A. Lorenzo</b>
16:45-17:00	78. Landslide Susceptibility Zonation in Sidamukti, Majalengka, West Java	<b>Rachma Nurul Ajrina, Qhonita Anif Febian, Ilham Prasetya</b>
17:00-17:15	79. Case study on rock slide susceptibility due to tunnel excavation	<b>Yuzo Ota</b>

**Technical Session XIII: Landslide disasters and Landslide mitigation****Chairperson:** *Prof. Dr. Monique Fort***Co-Chairperson:** *Mr. Prakash Chandra Ghimire***Rapporteurs:** *Mr. Kumar Timalsina and Mr. Hari Ghimire*

<b>Hall - Crystal</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
14:00-14:15	80. Residual-state Shear Creep Tests in a Modified Ring Shear Machine and Numerical Modeling for Failure Prediction	<b>Netra Prakash Bhandary, and Ryuichi Yatabe</b>
14:15-14:30	81. Horizontal Drilling Drainage as a Preventive Measure for Water Induced Landslide Risk Reduction: A case study from Sindhuli Road Section I, Nepal	<b>Shanmukhesh Chandra Amatya and Mikihiro Mori</b>
14:30-14:45	82. Experimental investigation of sediment resuspension and redeposition process by shoaling internal solitary waves on uniform slope	<b>Tian Zhuangcai, Guo Xiujun, Jia Yonggang, and Yu Le</b>



14:45-15:00	83. Empirical models for predicting the spatial variation of soil thickness and shear strength for landslide susceptibility assessment	<b>Cheryl F. Daleon and Glen A. Lorenzo</b>
15:00-15:15	84. LEM analysis and mitigation suggestions of Rangvamual landslide along NH-54, Aizawl, North- East India	<b>Laldinpuia</b>
15:15-15:30	85. Settlement of piles subjected to collapse of retaining wall	<b>Rajesh Prasad Shukla</b>
15:30-15:45	86. Towards a chemo-mechanical approach to landslide stabilization	<b>Gianvito Scaringi, Caterina Di Maio, Xuanmei Fan, Dario M. Pontolillo, Jacopo De Rosa, and Qiang Xu</b>
15:45-16:15	Tea Break	

#### **Technical Session XIV: Engineering Geology of Landslides – Landslide Mechanism**

**Chairperson:** *Dr. Xie Mowen*

**Co-Chairperson:** *Mr. Dinesh Kumar Napit*

**Rapporteurs:** *Mr. Sovit Thapaliya and Mr. Pramod Simkhada*

#### **Hall – Crystal**

<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
16:15-16:30	87. Understanding the potential severity of large landslide events through computational modelling	<b>Vincent Lemiale, Ha Bui, Shaohan Zhao, Laura Karantgis, Philip Broadbridge and Deepak Adhikary</b>
16:30-16:45	88. Experimental research on the characteristic of seepage coupled with creep of landslide soil around reservoirs	<b>Yu Wenpeng, Wang Shimei, Hu Qiufen, Teng Shuai, and Lu Peng</b>
16:45-17:00	89. Experiment of sudden initiation triggered by shearing vibration for locked segment of Wangjiayan Landslide	<b>Hu Kai, and Zhao Xiaoyan</b>
17:00-17:15	90. Effect of Weak Plane Orientation on Rock Slope Stability	<b>Yi-Ling Lin, Po-Tsun Yeh, and Kuang-Tsung Chang</b>

## 9.6 Day 2 - Poster Session - 2

All postal presenters need to place their poster in the Regal 2 Hall, before 14:00 hours of 29<sup>th</sup> November. Acceptable poster size is only A0. The Poster Session starts from 14:00-17:00 PM. Tea, coffee and snacks will be served inside the hall during poster session. Please remove poster/s after 17:00. The organizer will remove it after 17:30.

**Time: 14:00-17:00**

### Hall - Regal 2

Poster No.	Title of Papers	Authors
<b>Themes: Engineering Geology of Landslides</b>		
38.	Landslide Susceptibility Zonation Using Analytical Hierarchy Process (AHP) in Dharamshala Region, Himachal Pradesh	<b>Swati Sharma and A.K. Mahajan</b>
39.	Engineering geomorphological characteristics of the glacial lake outburst flood induced catastrophic creeping landslide: Ikhu landslide in Central Nepal	<b>Kaushal Raj Gnyawali, Basanta Raj Adhikari, Kristen Cook, and Bibek Giri</b>
40.	Rock slope stability analysis along KM-34 – KM - 45 in Tawaeli-Toboli area, Central Sulawesi, Indonesia	<b>Urwatul Wusqa and Imam Achmad Sadisun</b>
41.	Depositional environment and directional movement of debris flow sediments of Ratmate area, Sindhuli, central Nepal	<b>Milan Kumar Rai, Nitesh Subedi, Prakash Khanal, Sanjay Rizal, Ranjan Kumar Dahal and Suman Manandhar</b>
<b>Theme: Foundation, tunnel, underground geology, groundwater</b>		
42.	Analysis of ground deformation in Sanshandao gold mine based on GPS	<b>Ma Fengshan, Gu Hongyu , Guo Jie, and Lu Rong</b>
43.	Exploration of groundwater resources using Schlumberger arrangement of electrical resistivity survey in Pokhara-Lekhnath Metropolitan City, Kaski district, Nepal	<b>Hari Ghimire, Umesh Chandra Bhusal, Rajendra Prasad Bhandari, Bhaskar Khatiwada, Damu Pandey, Shiva Amatya and Mohamed Abdul Kadar Prabhu</b>
44.	Spatial Variability of Shallow Groundwater Level in the Northern Kathmandu Valley	<b>Manish Shrestha and Naresh Kazi Tamrakar</b>

45.	Geological core drilling on the foothills of the Himalayas. Issues, challenges and measures taken while drilling through the gravel/boulder layers.	<b>Om Prasad Dhakal, Manita Timilsina, and Ranjan Kumar Dahal</b>
46.	Elements of hypogene origin in the karst caves of the Urals (Russia)	<b>Olga Kadebskaya, Valerii Kataev, Nikolay Maksimovich, and Olga Meshcheriakova</b>
47.	Climatic investigation using short ice cores from Kazbek and Elbrus	<b>A. Khairedinova</b>
48.	Formation process of Shigenobu Basin and the mechanism of groundwater flow	<b>Tomoaki Kayaki and Seisuke Miyazaki</b>
49.	Optimum support estimation in proposed Middle Trishuli Ganga Hydroelectric Project, Rasuwa and Nuwakot	<b>Ujjwal Acharya, Khagendra Dahal, Kamala Kant Acharya, Sunil Kumar Dwivedi and Subesh Ghimire</b>
<b>Theme: New Technology</b>		
50.	Development of Technology for Long-term Monitoring and Automatic Data Acquisition System	<b>Akira Shidai, Kenzo Kiho, Yasuji Saito, and Tomohiro Kawakami</b>
51.	Hydrogeochemical criterion as applied for mapping hydrogeological windows	<b>Irina Galitskaya, Irina Kostikova, Irina Pozdnyakova, and Leonid Toms</b>
52.	Construction of a geological information CIM Management System and application to construction sites	<b>Shinji Utsuki, Masashi Nakaya, Ryosuke Tsuruta, and Kazuhiro Onuma</b>
<b>Theme: Landslide disasters and Landslide mitigation</b>		
53.	Geomorphological and geochemical approaches to clarify sediment distribution in mountain stream area, northern Kyushu, Japan	<b>Hiro Ikemi, Ryunosuke Nakanishi, Hendra Pachri, Yasuhiro Mitani, and Yuki Okajima</b>
<b>Theme: Engineering geology of mines and quarry sites</b>		
54.	Deformation and failure analysis of surrounding rock basing on borehole stress measurements and numerical simulations	<b>Qinghong Dong, Kun Song, and Wenhao Li</b>
55.	Steep slope stability analysis of open rock quarries	<b>Murat Yilmaz, Altay Ertin,</b>

	in Istanbul, Turkey	<i>Selman Er and Atiye Tuğrul</i>
56.	Assessment of Brittleness Index of Magmatic Rocks	<b>Atiye Tuğrul, Selman Er, Sinem Erişiş, and Murat Yılmaz</b>
<b>Theme: Integrated engineering geology in infrastructural development for stability and sustainability</b>		
57.	Geological challenges of road construction in Trishuli Valley between Syafrubensi-and Betrawati, Lesser Himalaya, Central Nepal	<b>Akash Acharya and Megh Raj Dhital</b>
58.	Assessing the proposed Khurkot-Manthali tunnel alignment along Sindhuli-Ramechhap districts, central Nepal	<b>Harichandra Budhathoki, Pushp Raj Bhatta, Kabita Maharjan, Ajaya Chapagain, Shankar Pantha, Ranjan Kumar Dahal and Suman Manandhar</b>
59.	Problems of control and reduction of inflow of water to road deep-level tunnel (Russia, Moscow)	<b>I.A. Kostikova, Batrak G.I., Pozdnyakova I.A., Galitskaya I.V., and Toms L.S</b>
<b>Theme: Case studies for geohazard management</b>		
60.	From seismic hazard assessment to seismic risk prevention in the island of Hispaniola	<b>Myriam Belvaux, Didier Bertil, Monique Terrier, Nicolas Taillefer, and Jean-Philippe Rançon</b>
61.	Assessment of Debris flow deposits around Palung Valley, Makwanpur district	<b>Arishma Gadtaula, Rabina Hada, and Pushkar Bhandary</b>
62.	Slope failure assessment by kinematic analysis in Kulekhani Watershed	<b>Badal Pokharel, Shila Bhattarai Krishna Pudasaini and Prem Bahadur Thapa</b>
63.	Depth susceptible to the internal erosion on the basis of grain size analysis of the sediment deposited along the sinkhole affected Armala area, Kaski District Nepal	<b>Basant Bhandari, Jivan Bhusal, Ramamohan Pokharel, and Lalu Prasad Paudel</b>
64.	Flood Hazard Analysis along Bhusghat Khola, Gharti Khola and Shankhamul Khola in Palung Valley, Makwanpur District, Nepal	<b>Sharmila Neupane, Sanjeeta Pandit, Bhuvan Panday and Prem Bahadur Thapa</b>

65.	Study on Gross Streambank Sediment Erosion from the Godavari Khola, Southeast Kathmandu Valley, Central Nepal	<b><i>Ujwal Kumar Maskey and Naresh Kazi Tamrakar</i></b>
<b><i>Theme: Rockfall hazard and its mitigation</i></b>		
66.	Rock fall hazard mapping in Siddhababa area of Siddhartha Highway, western Nepal	<b><i>Chhabilal Pokhrel, Ishwor Adhikari, and Ranjan Kumar Dahal</i></b>
<b><i>Theme: Engineering Geology in sustainable development and urban planning</i></b>		
67.	Spatial Distribution Characteristics of Major Elements in Water Sources in Kathmandu Valley of Nepal	<b><i>Fumitake Nishimura, Netra Prakash Bhandary, Ryuichi Yatabe, and Junko Nakajima</i></b>
<b><i>Theme: Response and reaction of earth materials to natural phenomena</i></b>		
68.	Evolution of Weathering Characteristics According to Weathering Grade of Granites in Sejong, Korea	<b><i>Ik Woo and Jeong Gi Um</i></b>
69.	Study on the Geochemical Characteristics and Weathering Behaviors of Black Shale	<b><i>Xin Liao, Xiyong Wu, Qingfeng Wang, Sixiang Ling, and Chunwei Sun</i></b>

**The 11<sup>th</sup> Asian Regional Conference of IAEG**

November 28–30, 2017, Kathmandu, Nepal

**10 Conference Day 3: 30th November****10.1 Day 3 - Keynote Presentation Session - 4****Chairperson:** *Dr. Pitambar Gautam***Co-Chairperson:** *Mr. Andy Prakash Bhatta***Rapporteurs:** *Mr. Bishow Raj Silwal and Mr. Madhab Lamsal***Hall - Regal 1**

Time	Title of Papers	Authors
<b>Keynote Lectures</b>		
9:00-9:30	10. Paleoseismic Studies of the Gatún, Limón, and Pedro Miguel Faults for Seismic Hazard Input to the Panama Canal Expansion in Central America	<b><i>Eldon Gath</i></b>
9:30-10:00	11. Failure prediction of landslide dam and motion simulation of landslide	<b><i>Fawu Wang</i></b>
10:00-10:30	12. Engineering Geology in Active Mountain Belts	<b><i>Shuichi Hasegawa</i></b>
10:30-11:00	13. Multi-temporal interferometry and high-resolution radar satellite data enable long-term slope monitoring and capturing of pre-failure signs of instability	<b><i>Janusz Wasowski, Fabio Bovenga, Raffaele Nutricato, Davide Oscar Nitti, and Maria Teresa Chiaradia</i></b>
11:00-11:30	Tea Break	

**10.2 Day 3 - Parallel Technical Sessions****Technical Session XV: Engineering Geology of Landslides - Earthquake Induced Landslide****Chairperson:** *Prof. Dr. R. Nagarajan***Co-Chairperson:** *Dr. Subodh Dhakal***Rapporteurs:** *Mr. Chitra Bikram Tandon and Mr. Champak Babu Silwal***Hall - Regal 1**

Time	Title of Papers	Authors
11:30-11:45	91. Spatio-temporal evolution of geohazards after the 2008 Wenchuan earthquake	<b><i>Xuanmei Fan, Lanxin Dai, Qing Yang, Runqiu Huang</i></b>

		<i>and Tristram Hales</i>
11:45-12:00	92. Landslides induced by seismic events: An overview in France and Europe.	<i>Gilles Grandjean, Rosalie Vandromme, Séverine Bernardie, Olivier Sedan, and Myriam Belvaux</i>
12:00-12:15	93. Slope deformation problem by earthquakes – A case study in the 2016 Kumamoto Earthquake site.	<i>Yasuhito Sasaki, Ken-ichi Asai, and Yoshinori Yajima</i>
12:15-12:30	94. The Main Causes and Damages Associated with the Deadliest Landslides During June-July, 2015 in the South-Eastern Part of Bangladesh	<i>Animesh Talukder and Anwar Saadat Mohammad Sayem</i>
12:30-12:45	95. Landslides triggered by the 2008 Wenchuan Earthquake: temporal evolution of the frequency-size distribution	<i>Guillem Domènech, Xuanmei Fan, Lanxin Dai, and Qin Yang</i>
12:45-13:00	96. Building a More Resilient Nepal -The Utilisation of the Resilience Scorecard for Kathmandu, Nepal following the Gorkha Earthquake of 2015.	<i>Michael R.Z. Whitworth, Mathew Francis, Shaun Hubbard, and Judy Mitrani-Reiser</i>
13:00-14:00	Lunch Break – Lunch at Madhuban Garden, Hotel Yak and Yeti	

### **Technical Session XVI: Engineering Geology of Landslides – Hazard and Susceptibility**

**Chairperson:** *Dr. Prem Bahadur Thapa*

**Co-Chairperson:** *Mr. Santosh Dhakal*

**Rapporteurs:** *Mr. Sujan Devkota and Mr. Umesh Bhusal*

<b>Hall – Regal 1</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
14:00-14:15	97. Landslide Mapping, Characterization and Mitigation in the Sub Himalaya of Nepal	<i>Subodh Dhakal, Suman Pandey, Niraj Bal Tamang, Kumod Raj Lekhak, Shanta Bastola, Padam Budha, Bijaya Maharjan, Gaurab Singh Thapa</i>
14:15-14:30	98. Kinematics of some Typical Rock slides in Himalayas	<i>Vinod Kumar Sharma</i>
14:30-14:45	99. Probabilistic landslide hazard assessment of the Black Sea coastline of Russia	<i>Andrey Kazeev, German Postoev, Ksenia Fedotova</i>

14:45-15:00	100. Susceptibility Zoning of Complex Landslides in Lanzhou City using Logistic Regression Method	<b>Baoping Wen, Shu Jiang, Yongjun Zhang, and Ruidong Li</b>
15:00-15:15	101. Cross validation of event-based landslide susceptibility models at the Zengwen Reservoir catchment in southern Taiwan	<b>Chyi-Tyi Lee and Chih-Chieh Fu</b>
15:15-15:30	102. Landslide Susceptibility Mapping along the Road corridor from Bandeu to Barahabise, Araniko Highway, Sindhupalchwok District	<b>Anu Khadka , Subodh Dhakal, Ajay Bhakta Mathema</b>
15:30-15:45	103. Drainage density as rainfall induced landslides susceptibility index in small catchment area	<b>Hirohisa Kinoshita, Shuich Hasegawa, Atsuko Nonomura, Shingi Nakai</b>
15:45-16:00	104. Lumle Landslide of Kaski District: Causes, Characteristics and Lesson Learned	<b>Narayan Adhikari and Gautam Khanal</b>
16:00-16:15	Tea Break	

### 10.3 Field Excursion - Introductory Session

**Coordinator:** *Dr. Kamala Kant Acharya*

**Rapporteurs:** *Mr. Lekh Prasad Bhatta and Mr. Sunil Bikram Thakuri*

#### Hall - Regal 1

Time	Descriptions	Excursion Coordinators
16:15-16:25	Ex-2: Kathmandu-Pokhara roadside slope protection work and Pokhara Valley tour (three-day)	<b>Ranjan Kumar Dahal</b>
16:25-16:35	Ex-3: The 2015 Gorkha Earthquake Epicentre area visit (two-day)	<b>Danda Pani Adhikari</b>
16:35-16:45	Ex-4: Arniko Highway –China Border and observation of landslides, floods and slope protection works	<b>Lila Nath Rimal</b>
16:45-17:00	Ex-5: Japan Society of Engineering Geology (JSEG) Special Excursion (three days) - Gorkha and Pokhara Area including Kathmandu-Pokhara roadside slope mitigation	<b>Shuichi Hasegawa</b>



**Technical Session XVII: Engineering Geology of Landslides – Rainfall induced landslides, Debris Flow, and Engineering geology in sustainable development and urban planning**

**Chairperson:** *Mr. Subas Sunuwar*

**Co-Chairperson:** *Mr. Surendra Maharjan*

**Rapporteurs:** *Ms. Mamata Sayami and Mr. Shrawan Shakya*

<b>Hall – Dynasty</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
11:30-11:45	105. Rainfall induced landslides – west coast of India	<b><i>R. Nagarajan</i></b>
11:45-12:00	106. Runout distribution analysis of debris flow in the Southern Mountainous Region of Bandung, West Java, Indonesia	<b><i>Imam A. Sadisun, Rendy D. Kartiko, and Indra A. Dinata</i></b>
12:00-12:15	107. Climatic Variations and 2017 Short Term Rainfall Induced Rangamati Landslide Disasters, Chittagong Hills Tracts, Bangladesh.	<b><i>A.T.M.S. Hossain and A.A Mahadi</i></b>
12:15-12:30	108. Effects of antecedent rainfall and snow melt on the volume of earthquake-induced landslides associated with inland fault activities in Japan	<b><i>Taku Komatsubara</i></b>
12:30-12:45	109. Characteristics of Ground Vibration Signal Produced by Debris Flows at Ai-Yu-Zi Creek, Taiwan	<b><i>Shih-Chao Wei, Ko-Fei Liu, Yi-Min Huang, and Yao-Min Fang</i></b>
12:45-13:00		
13:00-14:00	Lunch Break – Lunch at Madhuban Garden, Hotel Yak and Yeti	

**Technical Session XVIII: Engineering geology in sustainable development and urban planning and New Technology in Engineering Geology**

**Chairperson:** *Dr. Janusz Wasowski*

**Co-Chairperson:** *Dr. Suman Panthi*

**Rapporteurs:** *Mr. Anuj Khanal and Ms. Jharana Khanal*

<b>Hall – Dynasty</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
14:00-14:15	110. Landslide Mapping Using GIS and	<b><i>Hiromisu Yamagishi, Kazuo Shimura, and</i></b>

	Related New Technology	Kenichi Saito
14:15-14:30	111. Geological investigation and monitoring of Ramhlun Sports Complex landslide, Aizawl, Mizoram, North- East India	<b>Laldinpuia</b>
14:30-14:45	112. Evaluation of sediment dynamics of mountain stream based on variation of sediment deposition	<b>Ryunosuke Nakanishi, Yuki Okajima, Akira Baba, Yasuhiro Mitani, and Hiro Ikemi</b>
14:45-15:00	113. Comparison of SPAC and CCA methods of analysis to estimate subsurface shear wave velocity structure using microtremor array measurements	<b>Tara Pokharel, Toshiaki Yokoi, and Takumi Hayashida</b>
15:00-15:15	114. Credible zone analysis for SAR data in valley area	<b>Jiaxuan Huang, Mowen Xie, and Yan Du</b>
15:15-15:30	115. Landslide Assessment along Ramche-Jharlan Area in Dhading, Rasuwa and Nuwakot districts, Lesser Himalaya, Central Nepal	<b>Jharendra K.C., Purushottam Neupane, Deepak Gautam and Kabi Raj Paudyal</b>
15:30-15:45	116. Engineering geomorphology of river basin in Central East Nepal	<b>Ranjan Kumar Dahal and Suman Manandhar</b>
15:45-16:15	Tea Break	

### **Technical Session XIX: Marine Engineering Geology and related geohazards**

**Chairperson:** *Dr. Jianping Chen*

**Co-Chairperson:** *Dr. Ashok Sigdel*

**Rapporteurs:** *Mr. Madhab Lamsal and Mr. Kishor Acharya*

<b>Hall - Dynasty</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
16:15-16:30	117. The Superposed Sawtooth Model of Suspended Sediment Concentration in the Yellow River Subaqueous Delta Based on Observation	<b>Chaoqi Zhu, and Yonggang Jia</b>
16:30-16:45	118. Physical and mechanical properties of loess discharged from the Yellow River into the Bohai sea, China	<b>Hong Zhang, Yonggang Jia, Xiaolei Liu, Chaoqi Zhu, and Hongxian Shan</b>
16:45-17:00	119. In-situ observation of submarine landslide process in the Delta of Yellow	<b>Yonggang Jia, Zhenhao Wang, and Xiaolei Liu</b>

	River	
17:00-17:15	120. Contribution of wave-induced liquefaction in triggering hyperpycnal flows in Yellow River Estuary	<b>Xiaolei Liu and Yonggang Jia</b>

**Technical Session XX: Engineering Geology and Geodisaster Management, Engineering geology of mines and quarry sites**

**Chairperson:** Mr. Rajendra Prasad Khanal

**Co-Chairperson:** Mr. Aniruddha Paudel

**Rapporteurs:** Mr. Bishow Raj Silwal and Ms. Sanjeeta Mishra

<b>Hall - Regency</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
11:30-11:45	121. A Bibliometric Survey of Scientific Publications (1980-2017) on Natural Geological Hazards in Nepal	<b>Pitambar Gautam and Ranjan Kumar Dahal</b>
11:45-12:00	122. Climate Change, Natural hazards and Potential impacts on Infrastructure Development: focus on the dry, northern Himalayas (Mustang District, Nepal)	<b>Monique Fort</b>
12:00-12:15	123. Construction Practices in Rural Nepal without consideration of Engineering Geology	<b>Narayan Gurung</b>
12:15-12:30	124. A Preliminary Study on Classification of Urban Road Collapses and Prevention Measures	<b>Yuanbin Wu, Weiquan Luo, Zongyuan Pan, and Renchao Yin</b>
12:30-12:45	125. Accurate determination of the basic friction angle of rock using the tilt test	<b>Hyun-Sic Jang and Bo-An Jang</b>
12:45-13:00	126. Influence of Barton's JRC on Grout Propagation during Injecting into a Permeated Fracture	<b>Wanghua Sui and Jialu Xiong</b>
13:00-14:00	Lunch Break – Lunch at Madhuban Garden, Hotel Yak and Yeti	

**Technical Session XXI: Engineering Geology and Geodisaster Management and New Technology in Engineering Geology**

**Chairperson:** *Mr. Sagar Kumar Rai*

**Co-Chairperson:** *Mr. Kushal Nandan Pokhrel*

**Rapporteurs:** *Mr. Rajendra Acharya and Mr. Bishnu Thapa*

<b>Hall - Regency</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
14:00-14:15	127. Geophysical Study on Moraine Dam of Imja Glacier Lake in Eastern Nepal using Electrical Resistivity Tomography Method	<b><i>Pushpa Raj Dahal, Kabi Raj Paudyal, and Sudhir Rajaure</i></b>
14:15-14:30	128. Findings of geological, engineering geological and geophysical studies of the proposed Dotigad Hydropower Project area of Dadeldhura district, Far Western Nepal	<b><i>Champak Babu Silwal, and Kabi Raj Paudyal</i></b>
14:30-14:45	129. Sediment Load and its Source Identification: A Comparative Study of Lake Phewa and Kulekhani Reservoir, Nepal	<b><i>Prabha Neupane, Kumud Raj Kafle, Bed Mani Dahal, Chhatra Mani Sharma, Nani Raut; Smriti Gurung, Babi Kumuar Kafle, and Sushma Manandhar</i></b>
14:45-15:00	130. Dry Storm Period Sediment Dynamics of Southern Tributaries of the Bagmati River, Kathmandu Valley	<b><i>Dinesh Raj Sharma and Naresh Kazi Tamrakar</i></b>
15:00-15:15	131. Field-based assessment of rock discontinuity analysis and geological attributes particularly of stones for various engineering applications	<b><i>Sunita Bhattarai and Naresh Kazi Tamrakar</i></b>
15:15-15:30	132. The impact of earthquake and monsoon induced Landslides on Rural and Remote Transport Infrastructure - A case study from Nepal.	<b><i>Michael R.Z. Whitworth</i></b>
15:30-15:45	133. In-situ Direct Shear Testing (Block Shear Test) at Tanahu Hydropower Project, Tanahu District Western Development Region, Nepal	<b><i>Madan Raj Pokharel</i></b>
15:45-16:15	Tea Break	

**Technical Session XXII: Response and reaction of earth materials to natural phenomena, Engineering Geology and Geodisaster Management**

**Chairperson:** *Mr. Uttam Bol Shrestha*

**Co-Chairperson:** *Mr. Shiv Kumar Baskota*

**Rapporteurs:** *Mr. Sabindra Bahadur Shrestha and Mr. Kishor Acharya*

<b>Hall - Regency</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
16:15-16:30	134. Structure effects of rock slopes under homogenous and dip bedded rock slopes shaking table tests	<b>Shengwen Qi, Zhifa Zhan, and Jianxian He</b>
16:30-16:45	135. Assessment of the utility of improved slaking index test for characterizing some clay-bearing sedimentary rocks in Indonesia	<b>Imam A. Sadisun, Misbahudin, Indra A. Dinata, and Hideki Shimada</b>
16:45-17:00	136. The effect of slope inclination on seismic bearing capacity of footing resting near the slopes	<b>Rajesh Prasad Shukla, and Ravi Sankar Jakka</b>

**Technical Session XXIII: Neotectonics, Case studies for geohazard management, Engineering Geology and Geodisaster Management**

**Chairperson:** *Mr. Krishna Prasad Kaphle*

**Co-Chairperson:** *Mr. Narayan Adhikari*

**Rapporteurs:** *Mr. Manish Chaudhary and Mr. Arjun Bhattarai*

<b>Hall - Crystal hall</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
11:30-11:45	137. Structural control of the seismicity in Western Nepal revealed by the Hi-KNET seismological network	<b>Laurent Bollinger, Roser Hoste-Colomer, Hélène Lyon-Caen, Shiba Subedi, Mukunda Bhattarai, Bharat Koirala, Ratna Mani Gupta, Thakur Kandel, Kapil Maharjan, Ramesh Pandey, Corentin Quedec, and Lok Bijaya Adhikari</b>
11:45-12:00	138. Precise location and mapping of the Main Central Thrust Zone in reference to micro-structures and deformation along Khudi-Tal area of Marsyangdi Valley	<b>Lokendra Pandeya and Kabi Raj Paudyal</b>

12:00-12:15	139. Pipeline Rupture and Post-Construction Geohazards Assessment of Pipeline Route over Mountainous Region in East Malaysia	<b>Abd Rasid Jaapar</b>
12:15-12:30	140. Development of generalized regression model for soil depth to bedrock in an anthropogenic landscape – a case study of Phewa Watershed in Panchase region of Central-Western Hills of Nepal	<b>Sanjaya Devkota, Narendra Man Shakya, Karen Sudmeier, and Brian G. McAdoo</b>
12:30-12:45	141. Geohazard vulnerability scenario of megacity Dhaka, capital of Bangladesh	<b>Maliha Malek, and A.S.M. Woobaidullah</b>
12:45-13:00	142. Experimental study on rock stability assessment with strength deterioration of slide surface	<b>Yan Du, Mowen Xie, Hongke Song, Asim Farooq, Yujing Jiang, Edward J. Williams</b>
13:00-14:00	Lunch Break – Lunch at Madhuban Garden, Hotel Yak and Yeti	

**Technical Session XXIV: Engineering geology in disaster risk management, Integrated engineering geology in infrastructural development for stability and sustainability**

**Chairperson:** *Mr. Ram Prasad Ghimire*

**Co-Chairperson:** *Mr. Laxman Subedi*

**Rapporteurs:** *Mr. Anuj Khanal and Ms. Alina Karki*

**Hall - Crystal Hall**

<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
14:00-14:15	143. Towards effective and sustainable disaster risk management in Nepal: challenges and gaps	<b>Ramesh Tuladhar</b>
14:15-14:30	144. Risk understanding and measures undertaken to be prepared for future earthquake event in the aftermath of 2015 Gorkha Earthquake in the Pokhara Valley	<b>Chandani Bhandari and Ranjan Kumar Dahal</b>
14:30-14:45	145. Mechanism analysis of sinkholes formation at Jili village, Laibin city, Guangxi province	<b>Jianling Dai, Weiquan Luo, Yuanbin Wu, and Xiaozhen Jiang</b>
14:45-15:00	146. Liquefaction countermeasure of groundwater level lowering method installing permeable pipe by jacking methods	<b>Takao Hashimoto and Tositaka Shimizu</b>
15:00-15:15	147. The worlds southernmost geotechnical	<b>Sophie Bainbridge and</b>

	investigation, Ross Island, Antarctica	<i>Tim McMorran</i>
15:15-15:30	148. Engineering Geology of Cross-Himalayan Railway Alignment and its Preliminary Design	<b>Zhen-ming Shi, Yuan-yuan Zhou, Wei-ran Liu, Qing-zhao Zhang, Dan-xuan Xue, and Megh Raj Dhital</b>
15:30-15:45	149. Development of procedure to create building inventory for earthquake loss assessment and risk management	<b>Suman Pradhan, Kapil Bhattarai, Deepak Saud, Shamir Kumar Singh, and Surya Narayan Shrestha</b>
15:45-16:00	150. Cross-Faults and their Role in Himalayan Tectonics and Natural Hazards: a possible example from the Solukhumbu region	<b>Mary Hubbard</b>
16:00-16:15	Tea Break	

**Technical Session XXV: Response and reaction of earth materials to natural phenomena**

**Chairperson:** *Dr. Ramesh Man Tuladhar*

**Co-Chairperson:** *Dr. Suman Manandhar*

**Rapporteurs:** *Mr. Bhim Rana and Miss Biddhya Regmi*

<b>Hall - Crystal Hall</b>		
<b>Time</b>	<b>Title of Papers</b>	<b>Authors</b>
16:15-16:30	151. Determination of Representative Volume Element at the Songta Dam Site	<b>Shengyuan Song, and Qing Wang</b>
16:30-16:45	152. Dynamic Behavior of the Peaty Soils in Kayseri Free Trade Zone (Turkey) and Comparison of Their Site Response with Two Seismic Codes in Europe	<b>Nazlı Tunar Özcan, Reşat Ulusay, and Nihat Sinan Işık</b>
16:45-17:00	153. The study of energy released and strong ground motion during earthquake (2015) using wavelet analysis	<b>Binod Adhikari, Subodh Dahal, Monika Karki, Roshan Kumar Mishra, and Narayan P. Chapagain</b>

## 11 Valedictory Session

**Chief Guest:** Honorable Vice President of National Planning Commission Dr. Swarnim Wagle

**Chairperson:** Dr. Kabi Raj Paudyal, President Nepal Geological Society

### Hall - Regal 1

Time	Activities
17:30 – 18:00	<b>Speech by:</b> Prof. Scott Burns and Prof. Faqwan
	<b>Congress report:</b> Dr. Dandapani Adhikari, Convenor IAEG ARC-11
	<b>Best students award announcement:</b> Dr. Ranjan Kumar Dahal
	<b>Presentation from next ARC team:</b>
	TBN
	<b>Speech by Chief Guest</b>
	<b>Vote of Thanks:</b> Dr Ganesh Tripathi, Vice President Nepal Geological Society
	<b>Concluding Remarks:</b> Dr. Kabi Raj Paudyal

**Master of Ceremony (MC):** Dr. Kamala Kant Acharya, General Secretary Nepal Geological Society