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## Second Circular

# 11th Asian Regional Conference of IAEG “Engineering Geology for Geodisaster Management”



28–30 November 2017  
Kathmandu, Nepal



**Organizer:**  
**Nepal Geological Society (NGS)**



**Sponsor:**  
**International Association for Engineering Geology and Environment (IAEG)**

## Background

Engineering geology and geodisaster management are intimately linked with each other and it is a challenge to develop infrastructures without adversely impacting surrounding environment. The circumstances become even more complex if the region is frequented by large earthquakes, floods, debris flows, and landslides. Climate change, land use alterations, population growth, mass migration, and urbanisation are some of the pertinent issues to be dealt with by the engineering geologists of the twenty-first century. Nepal is resplendently located at the heart of the 2400 km-long Himalayan arc and the country can be defined as the natural museum of every kind of geodisaster. In this regard, the Mw 7.8 Gorkha Earthquake of 25 April 2015 is the latest example. The tremor hit central Nepal and brought about 9000 deaths and many thousands of injuries. The total economic loss by the quake exceeded US\$ 6 billion. It is estimated that the reconstruction and recovery phase will last for more than 5 years. Now, Nepal is in the reconstruction phase and many engineering geological issues are not discussed well among the practitioners and researchers. It was noticed that bridging between practitioners and researchers for engineering geological evaluation is arduous and reconstruction activities have already started without proper understanding of engineering geological settings of the terrain.

The Nepal Geological Society was founded in 1980, and since then it has organised various national and international workshops, symposia, and conferences. It conducts geological congress regularly and the recent one was the Eighth Nepal Geological Congress held during 27-29 November 2016 in Kathmandu. The Society has also successfully conducted the Himalaya–Karakoram–Tibet Workshops.

For last 50 years, the International Association for Engineering Geology and Environment (IAEG) has been bringing together all engineering geological professionals and researchers into a single forum through various regional and international conferences. Such congregations are serving excellently not only to enhance the skills and knowledge of engineering geology, but to promote as well many national groups around the globe. The Nepal Geological Society also has a long history of affiliation with the IAEG and is assisting it by conducting various conferences and meetings, including the IAEG international symposium in 1999 and IAEG conference in 2005. The 1999 and 2005 events were attended by 419 and 209 geoscientists from 34 and 22 countries, respectively.

## IAEG ARC-11

With the above background of successfully conducting many national and international gatherings, the Nepal Geological Society, along with its partner organisations in Nepal, is going to organise the Eleventh IAEG Asian Regional Conference (ARC-11) in Kathmandu, Nepal, on 28–30 November 2017. Apart from the conference, there will be five field excursions in various parts of the country to give first-hand information to the delegates of the engineering geological challenges in the Himalayan region.

Though such international meetings have been instrumental to the advancement of engineering geology in Asia, geoscientists and engineers around the globe have contributed and also benefited from such Asian Regional Conferences of IAEG. Hence, we are confident that the forthcoming event is going to be yet another building block to enhance the geo-engineering knowledge and to understand further the engineering geology in this part of the globe. This is the third time that an IAEG conference is going to be held in Nepal - a popular destination for geo-scientists and tourists. The conference will be an opportunity to all geoscientists and engineers for congenial discussions and sharing of new research findings in the field of engineering geology and geodisasters.

After the circulation of the First Circular on ARC-11, the Nepal Geological Society has received an overwhelming response from geoscientists around the globe. Hence, this event will certainly be another milestone in the history of Asian Regional Conference.

## Venue

The IAEG ARC-11 will take place in Kathmandu, an important historic city and the capital of Nepal. With an estimated population of about four million, Kathmandu is the largest metropolis in Nepal. Lalitpur and Bhaktapur are neighbouring cities of Kathmandu, and all

of them are located within the Kathmandu Valley. The Kathmandu Valley has historically important cultural monuments that attract millions of international and domestic tourists every year. At an average altitude of 1300 m, the Kathmandu Valley is filled up with ancient lake sediments that at their deepest point are about 550 m thick. All the major events of IAEG ARC-11 will be held in Kathmandu, while the field excursions will be held in various parts of the Nepal.

### Registration and further information

This Second Circular is released in order to provide general information on the Conference. As in the past, we anticipate an active participation of yours in the conference. We also require your moral and intellectual support to make IAEG ARC-11 a grand success. Kindly go to the websites <http://www.iaegarc11ngs.com/> for further information, including pre-registration procedure, abstract submission, field excursion sites, and event themes.

### Conference format

Following the past formats of the IAEG ARC, thematic oral and poster sessions have been planned within a single venue. Parallel sessions will be provided for various sub-themes in order to provide all participants an opportunity to present from all presentations.

### Conference excursions

To provide an opportunity particularly to all international participants, the conference program has been planned to include four field programs as follows.

#### 2017.11.27: Pre-conference tour

**Ex-1:** A full day historical monument and geomorphological tour of Kathmandu Valley.

#### 2017.12.01-03: Post-conference tours

**Ex-2:** Kathmandu-Pokhara roadside landslides and slope Protection work and Pokhara Valley tour (three days)

**Ex-3:** The Gorkha Earthquake 2015 Epicentre area visit (two days)

**Ex-4:** Arniko Highway –China Border landslides, floods and slope protection works

**Ex-5:** Japan Society of Engineering Geology (JSEG) Special Excursion (three days) - Gorkha and Pokhara Area including Kathmandu-Pokhara roadside slope mitigation

Details of all excursions will be given in the third circular.

### Conference Plan

The ARC-11 is going to be a special event for IAEG. In this conference, executive and council meetings of IAEG will be held in Kathmandu before the main events. There will be Hans Cloos Lectures of IAEG also in the first day of ARC-11. There will be four parallel technical sessions as per the expected number of submitted abstracts.

Time	28-Nov	29-Nov	30-Nov	01-Dec	Date				28-Nov	29-Nov	30-Nov	01-Dec	02-Dec	03-Dec
8:00	Registration on-site													
9:00	Registration and Award Ceremony of IAEG				Keynote Lecture-6		Keynote Lecture-7		Keynote Lecture-8		Keynote Lecture-9			
10:00	Hans Cloos Lecture				Keynote Lecture-6		Keynote Lecture-7		Keynote Lecture-8		Keynote Lecture-9			
11:00	Keynote Lecture-1				Technical Session 1 (Parallel)	Technical Session 2 (Parallel)	Technical Session 3 (Parallel)	Technical Session 4 (Parallel)	Technical Session 5 (Parallel)	Technical Session 6 (Parallel)	Technical Session 7 (Parallel)	Technical Session 8 (Parallel)	Technical Session 9 (Parallel)	Technical Session 10 (Parallel)
12:00	Keynote Lecture-2				Lunch		Lunch		Lunch					
13:00	Keynote Lecture-3				Technical Session 1 (Parallel)	Technical Session 2 (Parallel)	Technical Session 3 (Parallel)	Technical Session 4 (Parallel)	Technical Session 5 (Parallel)	Technical Session 6 (Parallel)	Technical Session 7 (Parallel)	Technical Session 8 (Parallel)	Technical Session 9 (Parallel)	Technical Session 10 (Parallel)
14:00	Lunch				Technical Session 1 (Parallel)	Technical Session 2 (Parallel)	Technical Session 3 (Parallel)	Technical Session 4 (Parallel)	Technical Session 5 (Parallel)	Technical Session 6 (Parallel)	Technical Session 7 (Parallel)	Technical Session 8 (Parallel)	Technical Session 9 (Parallel)	Technical Session 10 (Parallel)
15:00	Lunch				Technical Session 1 (Parallel)	Technical Session 2 (Parallel)	Technical Session 3 (Parallel)	Technical Session 4 (Parallel)	Technical Session 5 (Parallel)	Technical Session 6 (Parallel)	Technical Session 7 (Parallel)	Technical Session 8 (Parallel)	Technical Session 9 (Parallel)	Technical Session 10 (Parallel)
16:00	Tea/Coffee Break				Technical Session 1 (Parallel)	Technical Session 2 (Parallel)	Technical Session 3 (Parallel)	Technical Session 4 (Parallel)	Technical Session 5 (Parallel)	Technical Session 6 (Parallel)	Technical Session 7 (Parallel)	Technical Session 8 (Parallel)	Technical Session 9 (Parallel)	Technical Session 10 (Parallel)
17:00	Tea/Coffee Break				Technical Session 1 (Parallel)	Technical Session 2 (Parallel)	Technical Session 3 (Parallel)	Technical Session 4 (Parallel)	Technical Session 5 (Parallel)	Technical Session 6 (Parallel)	Technical Session 7 (Parallel)	Technical Session 8 (Parallel)	Technical Session 9 (Parallel)	Technical Session 10 (Parallel)
18:00	Tea/Coffee Break				Technical Session 1 (Parallel)	Technical Session 2 (Parallel)	Technical Session 3 (Parallel)	Technical Session 4 (Parallel)	Technical Session 5 (Parallel)	Technical Session 6 (Parallel)	Technical Session 7 (Parallel)	Technical Session 8 (Parallel)	Technical Session 9 (Parallel)	Technical Session 10 (Parallel)
19:00	Free Time				Free Time				Closing Session					
20:00	Welcome Reception													



### Important dates

**15 January 2017:** Conference 2nd circular releases and abstract submission (online submission) starts

**15 Mar 2017:** Conference 3rd circular releases and Conference “Early Bird” registrations starts

**15 June 2017:** An “Early Bird” registration closes and discounted registration process starts

**15 Aug 2017:** ‘Discounted’ registrations close and standard registrations open with release of 4th circular

**30 Sept 2017:** Abstract submission deadline

**15 Oct 2017 :** Field excursion booking closes

**15 Nov 2017 :** Conference final program and standard online registration closes

**27 Nov 2017 :** Conference on site registration (only cash payment) starts

Abstracts of only those authors or presenters who have already paid their registration fee within the deadline will be published in the abstract volume of the Journal of Nepal Geological Society, which will be distributed to all the registered participants during the conference.

Full papers will be published in the Journal of Nepal Geological Society after peer review process and will be available on 1 April 2018.

### Online Registration and Registration fee

All interested participants are requested to fill registration form available in the conference website ([www.iaegarc11ngs.com](http://www.iaegarc11ngs.com)). The early bird registration will be started from 15 March 2017. Registration fee will cover conference kits (bag, abstract volume, program booklet, and stationery), a reception dinner, conference lunches, and tea/coffee during the session break. It does not cover the cost of other dinners and hotel accommodations.

The details of registration fee are given below. Field excursion fees will be provided after 15 March 2016. The Conference organising committee is planning for online payment and bank transfer system. Detail platform will be provided later.

Category	Timeline		
	March 15 - June 15, 2017, "Early Bird"	June 16 - August 15, 2017	After August 15, 2017
Foreign participants	US\$ 450	US \$ 500	US\$ 550
Accompanying persons of foreign participants	US\$ 250	US \$ 300	US\$ 350
Foreign students	US\$ 225	US \$ 250	US\$ 275
Participants from SAARC nations	US\$ 250	US \$ 300	US\$ 350
Accompanying persons of participants from SAARC nations	US\$ 175	US \$ 200	US \$ 225
Students from SAARC nations	US\$ 125	US\$ 150	US\$ 175
Participations from international organisations based in Nepal	US\$ 250	US\$ 300	US\$ 350

### Conference theme and sub-themes

The main conference theme is “Engineering Geology for Geodisaster Management” and sub-themes include:

#### 1. Engineering geology of landslides

1.1 Landslides, Debris flows, and Rock fall

- 1.2 Landslide hazard and risk evaluation
  - 1.3 Landslide risk reduction
  - 1.4 Slope stability
  - 1.5 Landslide dams and their management
  - 1.6 Landslide Dam Outburst Flood (LDOF)
  - 1.7 Urbanisation on mountain slopes
  - 1.8 Rainfall-induced landslides
  - 1.9 Earthquake-induced landslides
  - 1.10 Anthropogenic landslides
  - 1.11 Landslide dating
  - 1.12 Large-scale landslides and old landslide topography
- 2. Neotectonics**
- 2.1 Active faults and associated earthquakes
  - 2.2 Himalayan tectonics
  - 2.3 Crustal dynamics and recent earthquake sources
- 3. Geohazards in Asia**
- 3.1 Flood hazards
  - 3.2 Volcanic hazards
  - 3.3 Tsunami hazards
- 4. Engineering geology in sustainable development and urban planning**
- 5. Foundation, underground geology, groundwater**
- 6. Tunnelling and related geodisaster management**
- 7. New technology**
- 7.1 Remote Sensing and Geodesy for geohazard management
  - 7.2 New technology and equipment for geohazards management
- 8. 2015 Gorkha Earthquake**
- 8.1 Earthquake mechanism and tectonics
  - 8.2 Engineering geological consequences
  - 8.3 Damage assessment
  - 8.4 Earthquake-induced landslide
  - 8.6 Seismic hazard and low cost design for earthquake safe buildings
  - 8.7 Ground response
  - 8.8 Rescue, relief and reconstruction
- 9. Climate modelling for geohazard assessment**
- 10. Marine engineering geology and related geohazards**
- 11. Engineering geology of mines and quarry sites**
- 12. Geoethics in engineering geology and geodisaster information**
- 13. Prevention of geodisaster sites and geopark management**
- 14. Relationship between slope instabilities and road or railway**
- 15. Land subsidence in coastal and inland areas**
- 16. Engineering geology for disaster risk reduction**
- 17. Response and reaction of earth materials to natural phenomena**
- 18. Integrated engineering geology in infrastructural development for stability and sustainability**
- 19. Case studies for geohazard management**
- 20. Rock fall hazard and its mitigation**
- 20.1 Rock fall hazard and its evaluation
  - 20.2 Rock fall protection systems and their performance
  - 20.3 High altitude rock slope failures
  - 20.4 Rock fall hazards on road side slopes and hydropower projects
- 21. University courses on engineering geology**
- 22. Other geohazards and hazard management**
- 22.1 Snow Avalanche
  - 22.2 Flood hazard management
  - 22.3 Glacial lake outburst
  - 22.4 Dating of geohazards
- 23. Others – related to engineering geology and geodisaster management**

## Climate

Climate in Kathmandu at the end of November is pleasant. Mornings and evenings are often cold, but the day time is pleasantly warm. It is advised that the participants bring warm clothes.

## Passport and Visa Requirement

All the foreign participants are advised to contact the Nepalese Embassy or Consulate in their respective countries to get visa for entering into Nepal. They must have valid passport and Visa to enter into Nepal. Visa can also be obtained in the Tribhuvan International

Airport (Kathmandu) on arrival. For those of you planning to acquire a visa upon arrival at the airport, please bring with you two passport-sized photographs and US\$ 25 cash for the visa fee. Gratis Visa is available for SAARC nationals visiting Nepal since 2014. We request you to claim Gratis Visa if it is applicable to you.

## Currency

US Dollar, Canadian Dollar, British Pound, Euro, Australian Dollar, Japanese Yen, Singapore Dollar, Indian Rupee, and Chinese Yuan can be exchanged in the banks, star hotels, and authorised money changers. As of December 29, 2016, US\$ 1 is equivalent to NRs 106.00 and, it may subject to change.

## Nepalese participants

All Nepalese participants are requested to contact the organisers at [info@iaegarc11.com](mailto:info@iaegarc11.com) and [conveneriaeg2017@ngs.org.np](mailto:conveneriaeg2017@ngs.org.np) or visit the 11th IAEG Asian Regional Conference (ARC-11) Secretariat for details on the registration procedure. Registration for Nepali participants is available through home page of the Conference website.

## Organisers

**Lead organiser: Nepal Geological Society**

### Associated partners

Department of Mines and Geology, Government of Nepal

Nepal Academy of Science and Technology

Department of Irrigation, Government of Nepal

Tribhuvan University (Central Department of

Geology, Geodisaster Research Centre, Kirtipur;

Department of Geology, Tri-Chandra Campus,

Ghantaghar)

Nepal Electricity Authority

International Centre for Integrated Mountain

Development (ICIMOD)

Nepal Engineers' Association (NEA)

National Society for Earthquake Technology-

Nepal (NSET Nepal)

Nepal Tunnelling Association

Nepal Landslide Society

Himalayan Landslide Society

Nepal Hydrogeological Association

Society of Hydrologists and Meteorologists

(SoHaM)

Nepal Hydropower Association

## 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)

## Organising Committee

**Chair:** Dr. Danda Pani Adhikari, President, NGS

**Convener:** Prof. Dr. Megh Raj Dhital

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

**Conference Secretary:** Dr. Prem Bahadur Thapa,  
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Mr. Jagat Kumar Bhusal, Society of Hydrologist and Meteorologist  
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*The village of Barpak, near the epicenter of 25 April 2015 Gorkha Earthquake. View to NW.*



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

28-30 November 2017

Kathmandu, Nepal



ARC-11

Nepal Geological Society

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