



An International Conference Series of Nepal Geotechnical Society

# Geotechnics for Sustainable Infrastructures

28-29 November, 2024

Kathmandu, Nepal

Organizer



Supported By:



# GeoMandu



## Introduction

In recent years, civil engineering advances are heading towards creating sustainable, resilient, and environment-friendly infrastructures, driven by global dynamics, urbanization, and climate change. Nepal is also heavily investing in infrastructure development encompassing a huge network of mountain roads, hydropower plants, irrigation canals and associated structures, and new urban hubs. Over the past few decades, significant progress has been made in expanding the road network from below 10,000 kilometers to 45,000 kilometers and increasing the installed hydropower capacity from about 1,000 megawatts to a remarkable 25,000 megawatts. Moreover, plans are already in place for increased road tunnels, railways, irrigation canals and water supply systems, as well as the development of secure and efficient urban environments.

Amidst these ongoing infrastructure development plan, engineers have been facing various challenges posed by natural disasters and climate change impacts. In this context, geotechnical engineering, as it must deal with the behavior of earth materials, their interaction with structures, and any impacts of natural disasters and climate change, always plays a pivotal role in ensuring the resilience and eco-friendliness of all infrastructures.

So, through this brochure again, we proudly announce that Nepal Geotechnical Society (NGS) will hold its second international conference series of GeoMandu on 28-29 November 2024 in Kathmandu. We warmly invite all geotechnical engineers, geoscientists, engineering professionals, academics, and researchers from around the world to participate and present their recent research findings and field experiences in this international conference, GeoMandu 2024, themed as "Geotechnics for Sustainable Infrastructures."

We are certain that the GeoMandu 2024 will serve as a dynamic platform for all participating academics, researchers, engineers, and practitioners and help them exchange their knowledge, disseminate recent groundbreaking research findings, and collaborate for engineering solutions to define the future course of infrastructure development.

We extend our heartfelt invitation to you again and request you to join us in the GeoMandu 2024 amidst the breathtaking landscape of Nepal and its Himalayan mountains as we embark on this inspiring journey towards "Geotechnics for Sustainable Infrastructures." Together, we can and will contribute to shaping a better, greener, sustainable, and resilient world for the benefit of our future generations.

## Call for Participation:

We invite all interested practicing and professional geotechnical engineers, civil engineers involved in geohazard research and exploration, engineering geologists, seismologists, geoscientists, geomorphologists, ground hydrologists, and all academics and researchers working in the field of geotechnics and geo-infra and geo-disaster management to contribute their research papers or project and field case reports and to present the work in this conference. As the conference theme encompasses a broader aspect of geotechnical engineering and sustainable infrastructure development, there will be no academic background-based restriction for participation. Please feel free to participate if you are interested in geotechnical engineering, geoscience, geohazards, and sustainable infrastructures and to present your findings if they are somehow related to the above keywords.

## Conference Subthemes:

Not restricting fully to the below-listed items, this international conference is expected to accommodate the following sub-themes.

- ▶ Earthquake Geotechnical Engineering and Seismic Design of Geotechnical Structures.
- ▶ Geotechnical Engineering for Sustainable Transportation System.
- ▶ Sustainable Foundation Design and Construction.
- ▶ Geohazards and Climate Change and Environmental Geotechnics.
- ▶ Geotechnology in high altitude.
- ▶ AI and ML techniques in Geotechnical Engineering.
- ▶ Tunnel Engineering and Underground Construction.
- ▶ Ground Improvement and Deep-cut Excavation.

## Conference Schedule

Registration begins: 1 March 2024
Abstract submission: 31 March 2024
Abstract acceptance notification: 30 April 2024
Full-length paper submission: 30 July 2024
Review results: 30 September 2024
Revised full-length paper submission: 20 October 2024

## Proceedings

All submitted full-length papers will be reviewed by two reviewers in the related field. The paper submission will take place online through the Springer Nature book editorial manager, and the review process will also take place in the submission system.

## Proposed Program outline

27 Nov	10:00 – 18:00	Registration
	13:00 – 18:00	Pre-conference tour (paid separately)
28 Nov	09:00 – 10:30	Pre Conference Keynote (I, II, III)
	10:30 – 11:00	Opening Session
	11:00 – 12:30	Keynote Presentations (I, II, III)
	12:30 – 13:30	Lunch break
	13:30 – 15:00	Parallel Sessions (I, II, III)
	15:00 – 15:30	Tea/Coffee Break
	15:30 – 18:00	Parallel sessions (IV, V, VI)
	18:30 – 20:30	Welcome Reception and Dinner
29 Nov	09:30 – 11:00	Parallel sessions (VII, VIII, IX)
	11:00 – 11:30	Tea/Coffee Break
	11:30 – 13:00	Special lectures
	13:00 – 14:00	Lunch break
	14:00 – 16:00	Invited Lectures
	16:00 – 17:30	Keynote Lectures (IV, V, VI)
	17:30 – 18:00	Closing Program
	18:30 – 21:00	Gala dinner (with payment option)
30 Nov	08:00 – 18:00	Post Conference Tour (paid separately)



## Registration Fee

International	US \$ 350
SAARC	US \$ 200
Domestic (Intuition)	NRS 250,00
Accompanying person (International/SAARC)	US \$ 150
Gala dinner (with special cultural program)	US \$ 70
Pre-conference tour:	US\$ 60
Post-conference tour:	US\$ 100

## Conference Venue

Kathmandu, Nepal



## Organizing team



**Prof. Dr. Netra Prakash Bhandary**  
Chair, GeoMandu 2024



**Dr. Mandip Subedi**  
Convenor, GeoMandu 2024  
President, NGS



**Dr. Indra Prasad Acharya**  
Chair, Technical Committee, GeoMandu 2024  
Vice President, NGS



**Er. Prabhat Kumar Jha**  
Vice President, NGS



**Er. Mandakini Karki**  
Vice President, NGS



**Er. Udaya Raj Neupane**  
General Secretary, NGS



**Er. Jibendra Misra**  
Member, NGS



**Dr. Dhundi Raj Pathak**  
Member Secretary, Technical Committee,  
GeoMandu 2024

## Communication



**Er. Darshan Babu Adhikari**  
Industry Sector  
Secretary, NGS  
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**Er. Ujjwal Niraula**  
Academic/NGS Member  
Secretary, NGS  
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**Er. Rajan KC**  
Technical Committee  
Treasurer, NGS  
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## Nepal Geotechnical Society

### About NGS, the Organizer

Nepal Geotechnical Society (NGS) is a scientific forum of engineers and scientists involved in the fields of general civil engineering, geotechnical engineering, and geo-sciences. It was established by an enthusiastic and truly dedicated group of geotechnical engineers and academics of Nepal back in 1994 so as to deal with massive geotechnical challenges and bring into effect geotechnical engineering design and practices together with the development of education and research in the country.

Apart from various national seminars and guest lectures, NGS is involved in international activities through its affiliation with the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) for more nearly thirty years. However, because of a number of difficulties including the largely lagging infrastructure development activities in the nation, we in NGS have not been able to frequently exchange our experience with the international geotechnical experts through any regular international events in Nepal itself. Despite our attempts in the past to hold international events in the country on a regular basis, most of our activities up until 2013 were, willingly or unwillingly, limited to national level and in smaller scales. Among the Asian national geotechnical societies too, we are still struggling to emerge as an active society in the region. The first ever NGS international symposium we organized was in 2013, but from March, 2023, we have started to hold the NGS international conference series on a regular basis every two years in the name of GeoMandu, and this time we are holding this international conference series the second time.

## Contact

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