Institute of Engineering, Tribhuvan University (IoE/TU)

Call for PhD Students

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1. Background

As a part of ReCAP (Developing a Multi-Hazard Risk Assessment (MHRA)Model and Supporting the Design of a Multi-hazard Early Warning System (MHEWS)Approach in Nepal/Koshi Province) project funded by Swiss Agency for Development and Cooperation (SDC) and being implemented by Swiss-Nepal consortium, we are looking for two (2) highly motivated and striving Nepali student to undertake PhD based at Institute of Engineering (IoE), Tribhuvan University.

The overall project focuses on developing a multi hazard risk assessment model and supporting the design of a multi hazard early warning system approach and associated MHRA plans in the Koshi Province of Nepal. Among a total of three (3) PhD students to be hired, one is already selected for University of Zurich (UZH) and two (2) will be hired at IoE/TU. The one hired at UZH is working on developing multi-hazard risk assessment model (Work Package 1), and the other two in Nepal work on developing MHEWS (Work Package 2) and developing emergency preparedness plans (Work Package 3). Training and capacity building activities are integrated across all three work packages. Within this overall framework, along with some core tasks, there is some flexibility to tailor the PhD dissertation to the strengths and ambitions of the student. Beyond the core research tasks, the student will have opportunities to contribute towards and develop new skills in project management, training and capacity building, and outreach activities.

The PhD student will be supervised jointly by IoE/TU, University of Zurich (UZH) or University of Geneva (UNIGE), and will engage closely with other partner institutions in Switzerland and Nepal. In particular, Hydro-solutions, a private company in Switzerland will support the supervision of the PhD student focusing on Work Package 2. Frequent field work in Nepal and periodic visit to partner institutions in Switzerland, is anticipated.

2. Core Tasks and Eligibility of Applicants

Core tasks (tentative) for each PhD student and eligibility/profile are provided in the following Table.

Theme	Core Tasks (Tentative)	Eligibility
PhD 1: Multi-hazard EWS development	Operational discharge forecasting, snow and snowmelt forecasting, event detection and alarming, developing multi-hazard EWS, recommending considerations for operationalizing MHEWS, etc.	• BE (Civil Engineering) from recognized university by TU • MSc in Water Resources or related areas
PhD 2: Developing emergency preparedness plans for reducing risk of multi-hazard	Develop technical/engineering basis of multi-hazard risk; assessing community needs, perspectives and capabilities aligning with the multi-hazard risks; tailored emergency preparedness plans, training and evaluation; implementation considerations and their periodic evaluation for effectiveness; etc.	• BE (Civil/Agriculture or related Engineering) from recognized university by TU • MSc in Water Resources, Disaster Risk Management, Geotechnical Engineering or related areas

In addition to the above eligibility, the applicant is expected to have;

- Experience in disaster risk management or climate change and adaptation (desirable)
- Experience in modeling tools in related area, knowledge on RS and GIS (desirable).
- Willingness to learn and explore new methods
- Experience working in mountain environments, and familiarity with the Koshi province would be a value addition.
- Confidence and diplomatic skills to interact with diverse stakeholders and partners
- Self-motivated, practical, pragmatic, and flexible.
- Work independently and proactively, as well as in a team.
- Prior publications in the related field will add value.
- Nepali citizen, with fluent in Nepali and English.
- The applicant under the age of 35 years at the time of application will likely be prioritized.

3. Benefits

The PhD student will get following benefits;

- Be a part of a strong network of academicians and professionals working in the areas of climate change, adaptation, and disaster risk management more specifically in the high-mountain hazards.
- The possibility to work at the interface between research and on-ground disaster risk management, within a large, multi-partner and multi-disciplinary project.
- Support for tuition fee and regular monthly stipend as per provision in the project complying with rules/regulations of IoE/TU.
- Regular supervision and monitoring by supervising committee from Nepal and Switzerland
- Opportunities for research stays and exchanges both in Switzerland and Nepal.
- Support for publications, conferences and workshops.

4. Expected Start Date and Duration

We aim for a start date of Oct/Nov 2025 aligning with academic calendar (start of the next semester) of IoE/TU. We expect the student to complete the PhD work within the three years, as the project can cover stipend for three (3) years only.

5. Application and Further Information

Applications are invited from interested potential candidates of Doctoral Programs of Institute of Engineering, Tribhuvan University for Academic Year 2082. The last date of submission of application is 7th November, 2025. The detail information and PhD Rules and Regulations 2025 can be obtained from the website of the Institute of Engineering at http://www.ioe.tu.edu.np

Please submit a motivation letter along with application form, explaining why you want to apply for this position and demonstrating how you fulfill the profile/eligibility listed above. All the documents should be submitted as a single PDF.

NOTE: *As per the funding regulations from SDC, we strongly encourage applications from minorities and socially discriminated individuals. SDC Nepal considers women, individuals and households belonging to Hill and Madhesi Dalit caste groups and indigenous ethnic groups from the Hills and Terai (except Newars), as socially discriminated.*