

## **Statement of Research Interest**

### **Applicant: Subodh Guragain**

"Live as you were to die tomorrow. Learn as if you were to live forever." This famous quote by Mahatma Gandhi truly sums up scientific research for me. My aspiration for learning and perseverance at all the times has been the foundation of my pursuit for knowledge so far- both during my academic as well as professional career.

I am presently working as a Civil Engineer in the Government office in Nepal. I have been appointed to work in the field of irrigation and river training field by the Government of Nepal, for developing irrigation facilities for agricultural lands of Nepal and to mitigate the natural disasters caused by rivers with proper river training works. In this process, I got the opportunity to apply my theoretical knowledge and skill in the practical field. My analytical skills were sharpened due to numerous challenging projects, specially, in hilly terrain of Nepal, where construction work itself is a challenge. Even a micro scale project requires special design and implementation for its sustainability and proper functioning.

I have specific interest to gain as much knowledge as I can in the field of Water Resource Engineering. Since it is my field of interest as well as my professional working field, a sound knowledge is crucial for my professional as well as personal development. I believe that water resource is both a science and an art requiring a higher degree of skill, economic sense and a higher level of judgment. The field of water engineering happens to be my area of interest. I would love to apply myself to the unprecedented challenges and opportunities associated with this happening field. In the period of my B.E., I have studied books published by Indian writers such as "Engineering Hydrology" by "K. Subramanya", "Irrigation Engineering" by "Santosh K. Garg" and so on. When I joined by professional job, I came to realize the similarity of practical field of Nepal and India. Theories formulated by Indian researchers such as Khosla's Theory are important for Nepal as the field conditions in Nepal and India are almost similar. I believe that during my post graduate study in India, I would be able to acquire sufficient knowledge regarding surface and ground water hydrology, design and implementation of hydraulic structures, river management and training, water resource management and so on.

My Interest in pursuing the graduate study in the field of water engineering is boosted by the fact that our country Nepal has abundant water resources, but the manpower required to utilize it is not promising. They seriously lack technical as well as management skill. "The essence of knowledge is not in having it, but applying it"- is what I believe. After completion of Master's Degree from your institute, I am planning to return back to Nepal to make some noticeable changes in the engineering sector and help the new emerging engineers who wish to develop new technologies and engineering tools to properly utilize water resources.

I strongly hold the belief that water resource are the backbone of all development and the right of every individual. I am certain that knowledge gained through my post-graduate study will benefit me and my country.

In this age with rapid changing technology, just an understanding of the subject will not suffice. One has not only to delve into the subject practically to get a throughout understanding of it. The only way one can keep up with the brisk pace of technology is to subject oneself to the learning and applying process. Through my professional and academic career, I have been able to understand that an undergraduate degree is merely an exposure to the various fields in any branch of education. This belief has led me to pursue a Master's Degree in Water engineering. I believe that the graduate study will not only let me explore the advanced domains of my field, but also give me an opportunity to acquire right tools to do the right job.

I am well versed with software such as Auto-CAD, SW Canal, QGIS etc. I have experience of designing small to medium scale irrigation projects and river training projects. Besides my knowledge and experience, I am confident that I have potential to successfully complete Master's Degree in Water Science Engineering from your Institute. I also have the qualities to be a good researcher. As I have already gathered some experience, I feel that this is the right time for me, academically and professionally, to enroll myself for the Master's Degree in Water Engineering.

Indian Institute of Technology (IIT), Kharagpur with its renowned experienced faculty, Laboratories and its erudite environment is an ideal place for me to better myself. The desire to delve deeper into this subject persuaded me to place application at your prestigious institute. It would therefore be an honour to be able to secure admission to pursue my graduate studies.