

Statement of Purpose

Petra Nemcova, a Czech supermodel and a Tsunami survivor once said "We cannot stop natural disasters but if we can arm ourselves with knowledge: so many lives wouldn't have to be lost if there was enough disaster preparedness." It was the year of 2015 when the massive Earthquake struck the central part of Nepal causing massive destruction of life and property. After being involved in post-earthquake reconstruction works, I have realized the importance of safe and earthquake resilience buildings and a master's degree in Structure Engineering certainly seems to be the subsequent step.

Choosing Civil Engineering, in my undergraduate, was never an instantaneous decision. Since my school days, I was best in my class, especially in Physics, Science and Maths, my performance was extraordinary. Subsequently, after completing my class 10, I shifted towards Physical Group which excluded Biology subjects and was inclined mainly towards Engineering. My interests towards buildings, bridges and construction shaped my way towards pursuing a Bachelor's degree in Civil Engineering. And, Motilal Nehru National Institute of Technology, Allahabad, India, was an excellent platform to complete my undergraduate degree under the guidance of some of the revered and experienced faculty members. Subjects like Concrete technology, Structural Engineering, Bridge Engineering and Survey fascinated me a lot. Frequent site visits and parallel laboratory works made things exciting and comprehensible.

My final year project was on "**Geotechnical Investigation for Railway Over Bridge and Design of its Sub-Structure**" where we carried out experiments on the soil samples, and designed the pile groups and the pile cap. This project enhanced my overall understanding of not only the transportation infrastructures but also the concepts of geo-technology and concrete technology. In 2015, Nepal was hit by a massive earthquake causing huge destruction of life, property, heritages, etc. Few weeks later, I gave a presentation on "**Risk Sensitive Land Use Planning (RSLUP)**". RSLUP is a technique which advocates Disaster Risk Reduction (DDR) through efficient land use management and aims towards risk-sensitive land use management, hazard, vulnerability and risk assessment tools; various land use planning interventions to reduce and mitigate disaster risk; policy, legal and institutional provisions for land use planning and disaster risk management; and methods of integrating disaster risk reduction into the local land use planning process.

I worked for Build Change, in Government of India funded project called Socio-Technical Facilitation and Consultation (STFC). Build Change has been providing technical assistance to UNOPS which has been working in post-earthquake reconstruction works in Nepal. Having been posted as a design team member, in one of the most rural municipality of the country, I have carried out structural and architectural designs of hundreds of listed beneficiaries' houses. Before that, I had a sagacious exposure to site works while working with Bhagawati Nirman Sewa Pvt. Ltd. As a site engineer, I have monitored and managed the overall activities of multiple Building Projects. During my third year summer vacation, I had a chance to work as an intern for Punhil Constructions Pvt. Ltd. where I was involved in Site



Supervision with planning of daily works with manpower management, quantity estimation and quality supervision. Furthermore, I also had an exposure to a broad comprehension, primarily about planning and surveying when I worked as a trainee with Lumbini Builders Pvt. Ltd. which was constructing a dry port. These trainings enhanced my skills of management, coping with the public and most importantly made me realize that there is abundant to learn.

As a General member, I have served Rotaract Club from 2016 to 2018 and engaged myself in various Community Service Projects along with Professional Development Projects. I have also assisted the Local Development Committee during the floods in Terai, the southern part of the country, and aided in the flood relief campaign by collecting and distributing the necessary relief materials to the affected and needy people. I have been a regular participant in the community awareness programs and events organised by UNOPS and the Local Government and non-government bodies advocating technical and social issues which also include a 16 days campaign against gender discrimination.

A good academic career can only be built over a firm foundation through a strong education with enough exposure to research and practices. Having completed my undergraduate from one of the highly rated engineering institution in India, it will be a privilege to pursue my Master's degree from IIT and gain exposure to the prolific academics and ample research opportunities. I hope that the admission committee will assist me transform my vision into a concrete reality by providing me the privilege to be a part of Institution.

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Civil Engineering (Structure Engineering)



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