

Mr. Himanshu Srivastava – Statement of Purpose

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Looking back at my childhood days, I remember myself as a very curious and joyous little fellow. Although my grades sometimes got me a scolding but my appetite for knowledge and understanding was always there. Learning about classical mechanics, I remember, was the time when I started to develop a keen interest towards engineering. This interest grew deeper and led me to join the bachelor's program specializing in Civil Engineering at Institute of Engineering and Technology, Lucknow, a reputed state government engineering college.

During the time of my Bachelor's, I performed decently in the academics. Apart from the regular academic curriculum, I also actively pursued my musical interests by serving as the lead guitarist and background vocalist for the college band. At the end of the curriculum I landed a job offer in Heidelberg Cement (a leading cement manufacturing firm in India). During the tenure of my under graduation, I was deeply fascinated by the hydraulic and hydrological aspects of Civil Engineering. This led me to drop my existing job offer and join IIT Kharagpur for pursuing my masters, specializing in Hydraulics and Water Resources Engineering.

IIT Kharagpur has provided me immense opportunity and intense exposure towards both research and academia. Studying under India's one of the best faculties helped me uplift my capabilities as a student. During the coursework in masters, I developed immense enthusiasm towards Computational Hydraulics. I have worked with Prof. Anirban Dhar at IIT Kharagpur on developing small scale hydrodynamic model for simulating free surface flows, which I presented in my master's thesis work.

For the tenure of my PhD, if selected, I plan to develop a hydrodynamic numerical model which can be implemented over a catchment. This coupled surface water-groundwater model should serve the purpose of land use optimisation and efficient resource management. This model will utilize catchment specific water & spatial data, and could be applied to one of the many river basins in India. The descriptive as well as prescriptive nature of model will help in the decision making for the integrated catchment management. The opportunity to pursue my doctoral studies at IIT Kharagpur and University of Manchester, along with the guidance of both Dr. Anirban Dhar and Dr. Andrea Bottacin- Busolin, I believe, will be very beneficial to me for achieving my academic goals.

'Great works are performed not by strength but by perseverance'. With strong will and confidence, I am eagerly looking for the opportunity to join the Joint-Doctoral Program.
