A i started envisaging its implementation in india.

Government

A rapidly burgeoning population and enormous sales of automobiles are continuously placing a burden on already saturated transportation network of India.

To tackle this issue, the government has pledged a significant amount of resources for the development of coherent and efficient road network. It offers a plethora of opportunities for civil engineers who will have a major role to play in the near future. For that reason, I secured an admission into one of the premier institutes of India, Vellore Institute of Technology, which paved the way for me to seize such opportunities. As an inquisitive child, I discovered the universal nature of computer technology and subsequently developed an interest in programming. My curiosity was short-lived, but I remained inclined toward computers through designing and analysing.

Nevertheless, while coordinating a workshop in my second year, a seminar on transportation engineering introduced me to this bizarre concept of automation in transportation networks, Intelligent Transportation Systems. I was so fascinated by the concept that I started envisaging its implementation in India. Accordingly, this envision became my future academic pursuit.

At Vellore Institute of Technology, which boasts of the excellent research facilities and renowned professors, the coursework in transportation field provided me with the essential theoretical knowledge. To enhance my learning and apply that technical knowledge in practice, I undertook several research projects. Under Dr Kumar's guidance, my first project on identification of accident hotspots using GIS improved my software

capabilities and inspired me to delve deeper into this area. We successfully published three papers on the projects that focused on traffic engineering in the IOP Conference held in May 2017 in Tamil Nadu, India. A project under Dr.

Bhushan's guidance that aimed at reducing university's congestion problem demonstrated the multidisciplinary nature of transportation science as it integrated programming in the field. Having attained a robust foundation in Transportation field through projects and coursework, combined with my proclivity towards computers, I wish to assimilate the knowledge of the interface that connects these two disciplines. Hence, a Master's degree is the next logical step that will nurture my technical skills and make me a versatile engineer. And, I wish to follow it up with a PhD at a well-known university so that I'm at the forefront while realizing my long-term goal. It would be a privilege to study at the University of Waterloo that would broaden my perspectives and culminate my education owing to the distinguished faculties, compelling coursework and superior research laboratories it has. I am particularly interested in Professor Liping Fu's and Professor Bruce Hellinga's research work and believe that theirs will be vital in the years to come.

Additionally, their work is in line with my interests, which makes it a natural choice for me to apply to your university. If given a chance to teach or do research work, I am confident that I will live up to the expectations bestowed upon me. I hope that you will find in me a deserving and commendable aspirant for your renowned University.