

Statement of Purpose

While growing up in an industrial town, I have always witnessed the reverence and admiration of people toward engineers. As a child, I used to wonder, what made them so special. The basic traits of an engineer were not lucid to me. Gradually, I began to realize, it means to be curious, creative, capable of solving complex problems, and to have a consistent passion to learn new things. I was captivated by these attributes and started chasing them to become an engineer one day. By the time I finished my high school studies, I had already decided to follow the path of the pioneers of the modern world. After completing a bachelor's degree in Electrical & Electronic Engineering (EEE), a Master's degree will provide me the right tools to solidify my ground as a professional engineer in the industries.

Throughout my high school studies, I enjoyed math & physics. I was marveled when I first learned about the thought experiment, "Twin Paradox" of special relativity. I was fascinated by learning that time can be slowed. My fascinations with math & physics made my undergrad course works even more indulging. Which eventually aided me to get a scholarship, to have the Dean's list award, and to maintain an excellent GPA throughout my 4-year journey.

The most thrilling course I had during my undergrad was the "Programming Language". Being a EEE major, learning C and C++ were enchanting for me. It provided me the fundamentals of programming and enabled me to have the capability of problem-solving and exploring other languages in the future. Moreover, courses such as, "Renewable Energy Technology" or "Power System Analysis" were also stirring for me. They showed me how climate change could be fought through green energy and to explore fundamentals and ways & means to perform power systems.

During my final year thesis, I have worked on the design of an antenna to sense on-body temperature and surrounding humidity. Apart from being a precursor to my degree, my thesis work gave me the chance to manage and lead a group of 4. I learned to think smart and independently. Therefore, before my defense, I was able to get a portion of my thesis accepted in a conference and later published. Following my graduation, I was eager to extend my field of interest by involving in something interesting and out of my discipline. Which led me to collaborate with my co-authors to work with blockchain for peer-to-peer power trading through smart contracts.

This project empowered me with the ability to cope with a task, I am not an expert at. I worked as a member of the group, followed the lead, and maintained a regular discussion with fellow members to achieve the goal. This sustainable team effort resulted in the acceptance in a conference and now awaits publication. I believe the capacity of working in a group is one of the crucial factors for higher studies. Hence, my previous experience with groups, research experience, and natural communication skills set me up with the right gears to embark on the journey of higher studies.

I know It would be more demanding to survive abroad. Nevertheless, this will give me the scope to become more self-reliant and will let me become independent. I will be among people from all over the world. Which will not only enhance my social skills but also enrich my cultural knowledge. I will be able to see my culture from a different perception. Besides, IIT provides higher education that is globally recognized and ensures that they meet high-quality

standards. Aside from having a quality education, a degree from the Indian Institute of Technology, Kharagpur will also instigate a boost in my career.

As a developing nation, many new sectors have emerged in the last decade in Bangladesh. Notably renewable energy and power electronics industry. After completing my Master's degree, I would like to pursue a professional career in one of these sectors. I firmly believe a postgraduation degree from the Indian Institute of Technology, Kharagpur will serve as a bridge between my potential and career goal. In addition to the quality education that I will be receiving, I will be on one of the diverse campuses in the world. Which will make my education more enjoyable and will help me master my communication and critical thinking skills. I am well aware that IIT, Kharagpur requires full dedication and high standards from its students. With my previous track record, I can confidently say that I will be able to meet these prerequisites and live up to the name of the Indian Institute of Technology, Kharagpur through my hard work and devotion. I strongly believe that If I am given the opportunity, I will be able to maintain a common interest with the Department of Electrical Engineering at the Indian Institute of Technology, Kharagpur.



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