

Statement of Purpose

Pursuit of academics and the continuous quest for learning embodies the philosophy of my life. It provides me with an opportunity to nurture my curiosity and gives me a structure for learning. Chemistry and the complex world of its compounds presents a fascinating jigsaw puzzle, one, which I am determined to solve. A central science that connects all other sciences, it is the impetus behind my decision to pursue further studies in this domain. The desire to pursue an MS in Chemical Engineering thus stems out of my sustained interest in organic and synthetic chemistry and the urge to use it in the practical world for the benefit of humankind.

My deep abiding interest in the STEM domain saw me opting for science in High school, exploring the mysteries of science and testing the waters for future course of action. Passing my senior secondary examinations, I got a good ranking in the entrance examinations to secure admission in the prestigious Siddaganga Institute of Technology, Karnataka for a Bachelors Degree in Chemical Engineering. This practical and research centric Program with emphasis on experiential learning laid a sound foundation of chemical engineering with exposure to the basics of Organic and Inorganic Chemistry, Analytical chemistry, Momentum and Mass transfer and Thermodynamics.(please add a few more subjects). During my under graduation, I immersed myself in various projects that enthralled me and inculcated a desire to delve deeper in this fascinating domain. My first project under Professor _____, PHD, was to develop an Optimal safe layout of fuel storage tank exposed to fire. The challenging project required me to practically apply and test my engineering skills by developing a mathematical model and calculating the safe separation distance of tanks exposed to fire. I introduced a radiative water shield to mitigate fire propagation at its source using C program and MATLAB. Another project was the synthesis and particle size optimization of magnesium oxide nanoparticles. I synthesized magnesium nanoparticles by hydrothermal method and characterized particle size using XRD analysis, SEM ,BET Surface area, DLS ,Zeta potential. These projects not only helped me to hone and test my chemical engineering concepts, they also taught me valuable life-skills of discipline, research, time-management and working in a team.

However, my greatest learning has come through my internship and training experience. My two-month internship at Hindustan Coca Cola Private Limited in the field of quality assurance and waste water treatment gave me hands-on industry experience which only ignited a fire to further my knowledge. Next, I joined R L Fine Chemical Pvt Ltd as a trainee in the quality assurance department. Here I learned about current good manufacturing practices and gained in-depth knowledge about standard operating procedures in a pharmaceutical company.

I also got an opportunity to be a part of the U S Food and Drug Administration Audit conducted during

my training period in which the company got approval successfully. Thus, my rigorous academic program, internship and training have given me necessary grounding and industry experience to help me be successful in further academic programs.

Taking stock of my academic journey post the completion of my B.Tech Program, I feel that I still have a lot to learn in this vast scientific domain. I am specifically interested in furthering my erudition in the subject so that I can develop sustainable and innovative ideas for the planet like an environmental friendly and economically viable water purification process etc. A Master's Program in Chemical Engineering with an International edge will empower me with the necessary skills to innovate and explore the full spectrum of immense possibilities in this realm.

The _____ University is my first choice for an academic destination as it is a renowned university with highly modernized instruction methodology, research orientation and state-of-the-art infrastructure. The comprehensive curriculum is structured to incorporate the frequent upgrades and updates in this dynamic field along with the opportunity to gain knowledge of global industry standards and emerging trends through the various internships and work opportunities. The expert guidance by pre-eminent professors with insights into nascent technologies promises to be an exciting learning experience. The chance to transcend international borders and interact with a multiethnic student populace, exchanging experiences with the added advantage of cutting-edge international education will be the fulfillment of a cherished dream.

Thus, I wish to further my knowledge of Chemistry and its applications, while developing critical thinking, research, and the ability to seek solutions through creative, out-of-the-box solutions. I also bring with me a penchant for co-curricular activities. I have been an avid volleyball player and am extremely interested in athletics. Apart from organizing and participating in various college technical events and fests, I have taken part in many symposiums and seminars. I wish to continue to participate with the same fervor in all extra-mural activities at the university. In the words of Steve Jobs, "Innovation distinguishes between a leader and a follower". I certainly wish to be an innovator and use my knowledge for furthering discoveries in the chemical realm. The overall academic environment, coupled with a truly interdisciplinary setting and multi-faceted approach to learning in _____ university will surely be a transformational experience. As my aspirations clearly depict my future goals, I am highly motivated towards pursuing this course at your University. It will indeed be an honor to be accepted for the Masters program at your illustrious University. I look forward to pushing the boundaries of innovation to realize my career aspirations. Finally, I take this opportunity to thank you for giving me this platform to express myself.