

## **STATEMENT OF RESEARCH INTEREST**

As a graduate of Mechanical Engineering, it is a significant milestone in the perpetual journey to education. With due reverence to the department and therefore the university, I pen down a **“Statement of Research Interest”**. This statement is an attempt to project my credentials as an aspiring researcher, my achievements as an engineer, my motivation, and my ambitions. Striving for innovation and improvement has been my motto altogether aspects of life, and therefore the same applies even to my professional and academic career.

I am **Pushkar Dev**. I have completed my Bachelor of Technology in **Mechanical Engineering at Annamacharya Institutions of Science and Technology Engineering College**, one of the pioneer institutes offering Technological education, affiliated to **Jawaharlal Nehru Technological University**, Hyderabad. An immense rate of development in this field and my constant urge to learn and explore, an ambition to be a researcher, and desire to be a part of the fast-growing technological world by contributing to its development have been instrumental in sparking an interest in me for graduate study. The confidence which I have is that I should be selected in your esteemed university comes from the opinion of my faculty and my dedication that I possess all the attributes, virtues, and aptitude which is required for a good research student. I believe that I fulfill the requirements to qualify for a role of honor in your esteemed University.

### **RESEARCH INTEREST:**

In this world where engineers are proliferating at an extremely high place, I have always felt a strong need for achievement something different to stand in a good position in the competitive world pursuing mechanical engineering inbuilt motive.

During my study at the baccalaureate level in my first year, I have nurtured a growing interest in Engineering Mechanics. This zeal wants to expose me to the outer limits of specialized knowledge of these fields. Thereafter, I had taken courses up in Designing in HVAC(Heating, Ventilation and Air -conditioning). This program has converted my deep zeal into a fascination with the subjects and motivated me to put my best efforts to grasp the fundamentals related to Mechanical Systems and Design Engineering.

I have acquired strong background fundamentals in the field of basic Mechanical Engineering subjects like **Basics Thermodynamics, Heat and Mass transfer, Solid Mechanics, CAD/CAM, Design of Machine Members, Mechanics of Machines**, etc. Thermodynamics and Design of machine members have captivated my interest during the study and I entitled my Major Project research **“STUDY ON THE PERFORMANCE AND EMISSION CHARACTERISTICS OF BIODIESEL USING SOYBEAN AND MUSTARD OIL”** with a group of four members. I was also the leader of my project and my role was to control the emission rate and to analyze the performance of the Engine. Based on this project, I would like to research and broaden my knowledge and skills, so that I can Design a System efficiently based on the performance and I believe that Mechanical Systems and Design Department will help me to attain my goals in the future. This will also help me to give a good product to upcoming generations.

## **WHY M.TECH?**

I strongly believe that an engineer should be instinctive, innovative, and quick to adapt and adopt new technologies, which is only possible with a solid foundation and profundity in these subjects. This entails an insightful and thorough understanding of the intricacies of the subject. It also emphasizes practical exposure of conceptual knowledge of engineering. That's the reason why I am inclined towards MTech.

## **WHY INDIA?**

I believe that the Indian Education system is a vibrant, diverse, and one of the finest education systems in the world as it directly enhances opportunities for its students and global learning for an all-around academic, public and private development. More precisely, I can say that it is a hub of innovation, creativity, and leadership. The courses/degrees directly enhance that are competitive in the world in terms of quality. Being helmed by-products of the Indian education system such as **Satya Nadella, CEO of Microsoft, Sundar Pichai, CEO of GOOGLE**, and many more diplomats inspire and motivate me to join Indian Universities so that I can also attain my goals and ambition in life and learn a quality education.

I realized that studying at an Indian University would be just the right choice for me. Indian universities are world-renowned for their work in the field of technology and the best place for intensive study and research in the field of Mechanical Engineering. A vibrant variety of culture and languages, breathtaking natural beauty and places to explore also attracts me to study in India. With the high standard education with well-advanced research facilities, I believe that India is the obvious choice for me.

## **Why IIT KHARAGPUR?**

It is my desire and dream that I apply to your esteemed university. After carefully going through your websites and reviews of students of the University, I have found that it is one of the premier institutes in the field of Mechanical Engineering with excellent facilities and laboratory. I feel that they are very much catering to the fields of interest and it is the right place to embark upon an academic career. The university has pioneered my field of interest in Mechanical Systems and Design.

Since I intend to engage in intensive practice later, I feel with well-qualified and experienced faculty, excellent facilities, exceptional research work and the inspiration given to students at your university would provide me with an ideal platform for achieving my goals. I also went through your motto, mission, and vision study, where I found that it has flexibility in the curriculum. This all combination of abilities is the best thing that drives me to apply at **IIT KHARAGPUR**.

## **CONCLUSION:**

In conclusion, I would like to say that if I am granted admission into your University, I will make maximum use of all the opportunities bestowed upon me and shall pursue my goals with a wholehearted dedication that will help me to realize my dreams and can live to the high standards set by the university. Finally, I take this chance to thank you for enabling me to pursue myself.