## **STATEMENT OF PURPOSE**

NAME OF APPLICANT: HARI PRASAD

**COURSE:** MSc in Materials Science and Engineering

**UNIVERSITY:** FAU Erlangen-Nürnberg

As a passionate and driven student hailing from the vibrant and diverse landscape of India, I am excited to embark on a journey towards academic excellence and personal growth in the field of Materials Science and Engineering. The intricacies of materials have always fascinated me, from the atomic structure to the macroscopic properties that shape our world. Now, as I stand on the precipice of higher education, I am eager to delve deeper into this realm of knowledge and contribute meaningfully to the advancements that drive technological innovation and sustainable development. My academic trajectory, marked by commendable achievements, reflects my unwavering commitment to excellence. With stellar performances in my 10th and 12th grades, coupled with consistent academic prowess throughout my undergraduate studies, I have demonstrated my dedication to scholastic pursuits. Moreover, my tenure as the academic topper for two semesters underscores my ability to excel in rigorous academic environments.

Beyond academic achievements, my journey has been enriched by immersive experiences in collaborative projects and extracurricular activities. Notably, our team's remarkable performance in competitions such as the National Electric Bike Challenge (NEBC) and SAE INDIA's REEV –  $2^{\rm nd}$  edition is a testament to our collective ingenuity and problem-solving prowess. These experiences have not only honed my technical skills but have also instilled in me a deep appreciation for teamwork and interdisciplinary collaboration.

Additionally, I have actively sought to complement my academic endeavors with practical industry experience through internships. I have completed two 30-day internships at Peekay Steels and National Motors, where I gained invaluable insights into the practical application of engineering principles in a real-world setting. These experiences deepened my understanding of manufacturing processes, quality control, and project management, while also fostering a keen appreciation for the complexities of the industry. Currently, I am engaged in an internship at Trane Technologies, Bangalore, where I am immersed in the realm of sustainable engineering solutions. This internship presents a unique opportunity for me to explore my passion for sustainability and energy efficiency while gaining hands-on experience in HVAC systems and renewable energy technologies. The exposure to cutting-edge technologies and industry best practices at Trane Technologies is further fueling my enthusiasm for pursuing a career at the intersection of engineering and technology.

Furthermore, my engagement in extracurricular activities such as the Darpan dance fest and Magnovite Inter-college fest reflects my holistic approach to personal development. These endeavors have nurtured my creativity, leadership abilities, and interpersonal skills, fostering a well-rounded individual poised to thrive in diverse settings. Additionally, my role as the secretary

of MARMAC and participation in the school-level student's council have provided me with invaluable leadership opportunities. These experiences have honed my organizational skills, decision-making abilities, and adeptness at fostering collaborative environments.

Germany, renowned for its engineering prowess and esteemed educational institutions, presents the ideal environment to cultivate my aspirations. The opportunity to immerse myself in a culture that values innovation, efficiency, and sustainability is both exhilarating and intellectually stimulating. Moreover, the chance to engage with Germany's rich industrial landscape and renowned research facilities is an exciting prospect. I aim to leverage these resources to deepen my theoretical knowledge and gain practical insights into real-world engineering challenges.

My fascination with Materials Science and Engineering stems from its interdisciplinary nature, seamlessly blending principles from physics, chemistry, and engineering to solve complex challenges. It is this interdisciplinary approach that drew me to FAU Erlangen-Nurnberg, a renowned institution celebrated for its cutting-edge research and collaborative environment. The university's commitment to fostering innovation and excellence aligns perfectly with my aspirations, offering a stimulating academic atmosphere where I can explore my interests, engage with esteemed faculty members, and collaborate with fellow scholars from diverse backgrounds.

At FAU Erlangen-Nurnberg, I am particularly intrigued by the opportunity to participate in research initiatives that push the boundaries of materials science, addressing pressing global issues such as renewable energy, environmental sustainability, and biomedical engineering. The university's state-of-the-art facilities and strong industry connections provide an ideal platform for translating theoretical knowledge into practical solutions, preparing me to tackle real-world challenges with creativity and expertise.

Furthermore, the vibrant student community at FAU Erlangen-Nurnberg offers a rich cultural exchange that promises to enrich my educational experience. Engaging with peers from around the world will not only broaden my perspectives but also foster lifelong friendships and professional networks that transcend geographical boundaries.

In conclusion, my decision to pursue my MSc in Materials Science and Engineering at FAU Erlangen-Nurnberg is driven by a desire for academic excellence, a passion for interdisciplinary research, and a commitment to making a meaningful impact in the world. I am confident that this journey will not only expand my intellectual horizons but also empower me to contribute positively to society, both during my studies and beyond.