

## Statement of Purpose

I am excited to articulate my aspiration to pursue a Master's in Materials Science and Engineering at your esteemed university. Reflecting on my evolution from a curious kid to a Mechanical Engineer, I am reminded of Sir Henry Royce's timeless words: "Strive for perfection in everything you do. Take the best that exists and make it better. When it does not exist, design it." This has been my guiding principle throughout my academic and professional endeavors igniting my passion for excellence and innovation in Mechanical Engineering. I want to pursue my Master's with the ultimate goal of formulating innovative products and solutions for societal betterment.

During my academic years I have explored the multifaceted aspects of Mechanical Engineering Design, Manufacturing, and Quality Control. After my studies, I opted to garner practical experience in the industry before pursuing advanced studies. Furthermore, I delved into studies in the area of Non-Destructive Testing (NDT) methods, advancements in additive manufacturing and sustainable practices in recycling polymer wastes. Later my research findings were channeled into review papers offering valuable insights and proposing avenues for further progress.

Owing to the notion that engineers must accord practicality with vision, I actively pursued opportunities to augment my knowledge. Industrial training at esteemed institutions like Premium Transmission Limited and Kolaghat Thermal Power Station provided invaluable insights into the real-world applications of engineering principles. Additionally, participation in seminars, competitions and collaborative projects enriched my skill set and broadened my perspective.

Commencing on my professional journey as a CNC Operator at Mahindra CIE Automotive laid the foundation for honing my technical skills. Operating intricate machinery with precision and upholding stringent quality standards became second nature to me. Transitioning to the role of Junior Engineer at Maini Precision Products Limited, I managed operations of CNC turning machines to produce precise finished products from raw materials. My responsibilities encompassed blueprint evaluations, utilizing diverse measurement tools to ensure precise dimensions and adherence to quality standards. I also optimized machining techniques, cutting tools and NC programs to boost productivity and extend tool lifespan. Apart from technical duties, I mentored new team members on technical proficiency and safety protocols, fostering a cohesive and efficient workshop environment. Managing production schedules within stipulated deadlines and maintaining a tidy workspace further streamlined workflow and ensured optimal outcomes.

Choosing FAU Erlangen-Nürnberg University for my Master's in Materials Science and Engineering was an easy decision, considering its outstanding reputation and extensive research facilities. The department offers a diverse range of core subjects such as Materials for

Electronics and Energy Technology, Biomaterials and Micro and Nanostructure Research, aligning perfectly with my academic interests. Additionally, the opportunity to select electives within own department and other departments in the Faculty of Engineering allows me to tailor a curriculum best suited for my career goals. The specialization options, which correspond to the research focuses of the nine chairs in the department further enhance the depth of learning in specific material areas. Moreover, the university's excellent international reputation, renowned faculty, and close connections to leading research institutions provide invaluable networking opportunities and access to cutting-edge research. Combined with the vibrant student life in Erlangen and its safe intercultural environment, studying at FAU offers a holistic experience conducive to academic and personal growth.

In conclusion, I am eager to commence this academic voyage at FAU Erlangen-Nürnberg, where I believe my innovative vision, technical acumen, and unwavering dedication align seamlessly with the program's objectives. I am confident that my diverse experiences and aspirational drive render me a fitting candidate to make significant contributions to the field of Materials Science and Engineering, propelling impactful innovations in the future.