

STATEMENT OF PURPOSE

Master's degree in Advanced Manufacturing

Chemnitz University of Technology

The process of manufacturing has always fascinated me, and I have a deep curiosity about how things are made. Advanced manufacturing, which combines disciplines like mechanical engineering, materials science, CAD, and robotics, provides a holistic approach to solving real-world manufacturing problems. It is a field that is constantly pushing the boundaries of technological innovation and has the potential to revolutionize production processes, making them more efficient, sustainable, and accessible worldwide. Hence, I have decided to pursue a master's degree in Advanced Manufacturing. Upon finishing this course, my goal is to become an **Industrial Designer**. I aspire to work in a variety of industries, such as consumer electronics, automotive, furniture, or even medical devices. I want to be involved in the entire design process, from conceptualization to prototyping and final production.

Looking at my educational background, I completed my Secondary School Certificate Examination (Class 10th) at Jamia Millia Islamia, New Delhi, India, achieving a CGPA of 9.57 (German Grade: 1.21) in May 2015. Following that, I completed my Senior School Certificate Examination (Class 12th) at the same institution in April 2018. Subsequently, I pursued a Bachelor of Technology in Mechanical Engineering at Jamia Millia Islamia from July 2018 to May 2022, graduating with a CPI of 9.35 (German Grade: 1.33) in January 2024. I participated as a Member of the Organizing Committee in the National Conference on Robotics & Mechatronics during Jamia Millia Islamia's Centenary Celebration in March 2020. I completed Technophilia Summer Training with AZeotropy IIT Bombay, participating in courses on Automobile & IC Engine, Data Science, Java Programming, Machine Learning, and Python Programming. Additionally, I successfully finished "Excel Skills for Business: Essentials" and "Technical Support Fundamentals" through Coursera, enhancing my technical proficiency across multiple domains. I completed a Six Weeks Online Training on AutoCAD with Internshala Trainings. I also conducted my Bachelor's project at Jamia Millia Islamia's Department of Mechanical Engineering on "Conjugate Natural Convection and Surface Radiation in Attic Shaped Enclosure." The study focused on understanding natural convection's heat transfer mechanisms due to temperature differences between an isothermal wall and adjacent fluid, influencing fluid density variations.

In **master's degree in Advanced Manufacturing** course, I will learn how to optimize production processes by mastering resource efficiency principles. This will help minimize waste and reduce environmental impact. I will also study advanced production systems and innovative materials, which will drive cutting-edge manufacturing processes and technological advancements. I will also focus on integrating highly efficient process chains and production networks to enhance collaboration and operational flexibility. Virtual technologies in mechanical engineering will give me the skills to simulate and optimize manufacturing processes, which will accelerate product development and reduce costs. I will also learn about the possibilities of additive manufacturing, specifically 3D printing, to create complex and functional components.

Germany has been one of the most preferred destinations for Indians and other international students as it offers quality education and globally recognized degrees. Talking about its teaching professional bodies, they are highly trained and well qualified in their fields and it is home to plenty of prestigious universities that are highly ranked and well-known around the world. The country has an enriched record for providing research-oriented programs to students across the world. Another reason to choose this country for my higher education is that it has a diverse community with different cultures from around the world, which creates a multicultural atmosphere. It will give me the opportunity to learn about their culture and tradition, which will provide me with international exposure. Additionally, it uses a practical teaching approach, the most up-to-date tactics, and an updated curriculum to prepare students for the workplace. I find most German universities to be student-friendly and to provide a safe living and learning environment. So due to all these reasons, I want to study in Germany

Right after I chose Germany for my higher studies, I started looking for the best-suited and favorable universities that would meet my requirements. There are lot of reason that made me choose **Chemnitz University of Technology**. It is known to be one of the best institutes in Germany, having a great number of students applying every year because of its friendly atmosphere and modern techniques-based methods of education there. It is also popular for innovative courses, an excellent teaching system, and high-quality education. It has strong industry links, which reassures me that I will receive industry-relevant and industry-based education. The courses at this university are taught by highly certified, experienced, and motivated professors who are enthusiastic about not only teaching but also providing students with a practical and satisfying learning experience. Apart from that, the university offers higher industry exposure to keep me informed about the current booming trends in the field. The last essential factor is quality education, an outstanding feature of the university as it focuses on classroom education and practical knowledge with actual industry collaborations. There are multiple courses to choose from, giving students the flexibility to select programs. Thus, these are the reasons for me to choose Chemnitz University of Technology

I believe that enrollment at your prestigious institution will provide me with the opportunity to scale the ladder of success. Hence, I request you to consider my application and provide me with a place of study at your esteemed university to fulfill my quest for education and future plans

Yours truly,

Abdur Raheem