STATEMENT OF PURPOSE

I am **Mayur Janardan Jawale**. This statement of purpose serves as my application to pursue a **Master of Science degree in Automation and Robotics at TU Dortmund University**.

My educational background demonstrates a strong foundation in mechanical engineering. I earned a **Bachelor of Technology in Mechanical Engineering** from Savitribai Phule Pune University (SPPU) with a **CGPA of 9.77 (German Equivalent: 1.22)**. During my studies, I gained a comprehensive understanding of core mechanical engineering concepts through courses in engineering mathematics, engineering chemistry, engineering physics, and more. I also developed strong skills in essential areas like machine design, CAD/CAM, and mechatronics & automation, which are highly relevant to the field of robotics.

In addition to my coursework, I completed a final-year project on **Battery Thermal Management System Design**. This project focused on a critical challenge in the automotive industry: thermal runaway prevention in battery packs of electric vehicles. I investigated methods to improve thermal performance through theoretical and simulated analysis. I am also a **published author, and co-authored a paper entitled "Design, Analysis & Validation of an Alpha Stirling Engine"** which explored alternative fuels for conventional engines. This research evaluated the thermo physical properties and real-time performance of modified oils and esterified blends used as fuels.

My proficiency in English is strong, with an overall **IELTS score of 7.0 (CEFR Level C1)**, demonstrating my ability to effectively understand and communicate complex academic concepts. While I am still developing my **German language skills (Goethe-Zertifikat A2),** I am actively working to improve my fluency in all areas, which will further enhance my academic experience in Germany.

Beyond academics and linguistics, I've gained valuable practical experience through internships and work which are as follows-

- I interned at GKN Fokker Elmo India Pvt. Ltd., where I streamlined production processes by analyzing assembly times and optimizing the layout. Earlier, at Develop Train Maintain LLP, I delved into renewable energy, researching and designing wind turbines using CAD software like CATIA and SolidWorks.
- Further solidifying my design skills, I participated in an internship at King Mongkut's Institute of Technology, Thailand, where I designed an Alpha Stirling Engine using simulation software.
- Most recently, I started working as an **ME Associate at Randstad India Private Limited**. Here, I'm actively using my CAD skills with SolidWorks, Creo, and AutoCAD to create and improve designs, while also participating in risk assessments and documentation processes.

To further enhance my design expertise, I completed a **Master Diploma in Product Design & Analysis** at CADD Centre Training Services. Additionally, I scored **380 on the Mechanical Engineering GATE exam**, demonstrating my knowledge of core engineering principles. These experiences have given me a well-rounded understanding of the practical applications of engineering principles and a strong foundation for success in the field.

My undergraduate studies in Mechanical Engineering equipped me with a strong foundation in core principles and design methodologies. However, internships ignited a passion for applying these principles to develop automated solutions. This passion, fuelled by the growing importance of automation, motivates me to pursue a Master of Science in Automation and Robotics at TU Dortmund University. The program's focus on advanced control systems, robotic manipulation, and intelligent automation aligns perfectly with my desire to specialize in this dynamic field. Particularly, the program's emphasis on robot programming and system integration aligns with my career aspirations of becoming a Robotics Engineer or Automation Specialist.

With this advanced degree, I envision myself at leading organizations like Siemens or Bosch, designing and implementing automated solutions that revolutionize manufacturing processes and drive efficiency. TU Dortmund's reputation for excellence, its focus on research and innovation, and its location in Germany, a global leader in automation, make it the perfect environment for me to thrive. Learning from renowned professors, collaborating with industry partners, and gaining practical experience will allow me to develop into a well-rounded automation and robotics engineer.

All in all, my academic journey, practical experience, and unwavering passion for automation and robotics make me a strong candidate for your program.

In the end, I would like to thank you for considering my application and I hope to hear a positive response from your end.

Regards

Mayur Janardan Jawale