**Statement of Purpose**

My name is **Ketan Subhash Patel** & I have done Mechanical Engineering. and I am writing to express my keen interest in pursuing a **Master of Science in Mechanical Engineering with a specialization in Sustainable Energy Systems and Circular Process Engineering at Ruhr-Universität Bochum (RUB).** I am particularly interested in this program as it relates well to my academic training as well as my past work experiences and it will assist me in achieving my professional objectives.

**Academic Background:** I passed my 10th standard SSC examination in the year 2006 with 75.86%. I later on finished my Higher Secondary Certificate (12th) in the year 2008 with an aggregate of 76.20% from the Maharashtra State Board of Secondary and Higher Secondary Education. For higher education, I studied at the University of Mumbai where, in 2012 I graduated with a Bachelor of Engineering in Mechanical Engineering, this education equipped me with a basic understanding of core subject areas such as Engineering Mechanics, Heat & Mass transfer and Mechanical Vibrations as vital in automotive engineering.

**Bachelor Projects:** In my bachelor's degree program, I carried out project work on: “Evaluation of the feasibility of converting bitumen pump gland packing to mechanical seal” at the Bharat Petroleum Corporation Limited Mumbai. I also found this project to be complex because it concerned leak reduction in a bitumen pump which was at the same time a safety and cost concern.

**Work Experience:** I have gained significant work experience for 9 years in the automotive industry. My most recent role was as a Deputy Manager at Skoda Auto Volkswagen India Pvt Ltd, where I was responsible for the design and development of the Green House Project. Prior to this, I worked as a Lead Engineer at Xitadel CAE Technologies India Pvt. Ltd., where I was involved in the installation of direct and indirect vision devices and worked closely with design styling and homologation teams. I also served as a Passive Safety Coordinator at Grupo Antolin India Pvt Ltd, where I reviewed reports for physical tests of subsystems as per global regulations like ECE R95 and FMVSS201L. My career started with roles as a CAD Engineer at CAD Tech Engineering Solution Pvt Ltd and a Trainee Engineer at Fouress Engineering India Ltd., where I honed my skills in product design and development.

**Technical Skills and Certifications:** I've actively pursued various training opportunities and workshops to enhance my skills and knowledge. I completed a short-term course in Unigraphics CAD at Indo German Tool Room and earned a diploma in Product Design & Analysis from CAAD Center Training Services. I also finished the CCCP course at EDS Technology and attended workshops on topics such as novel trends for engineering graduates and head impact on vehicle interiors. My participation in technical events includes Refrotech 2011 and CAD Tech-2010, an intercollegiate 3D modeling competition. I've received recognition for my work, including an appreciation for defining JP Homologation Study and Methodology, and a certificate for creating a graphical logo at Skoda Auto Volkswagen India.

Additionally, I completed a four-day Global Online Proficiency Improvement Programme on Automotive Testing and Certification organized by The Automotive Research Association of India. My technical skills include proficiency in CATIA, RAMSIS, CAVA, and ECE.

**Why This Course?** The Master’s program in Mechanical Engineering: Thus, the field of Sustainable Energy Systems and Circular Process Engineering at RUB fully corresponds to my further career plans. The emphasis on sustainable energy and overall circular processes is reminiscent of my in engineering which is motivated by creating effective solutions in the sense of application and yet being ecologically friendly. This program will let me enhance my knowledge of sustainable energy systems, conversion technologies and circular economy principles, which are all captured in the layman’s proverb: ‘you cannot get energy from nothing’ . Such an approach combining mechanical engineering with elements of environmental science and management will provide me with a broad picture of the modern engineering world and the problems that I need to solve.

**Why Now?** Considering my vast experience in mechanical engineering, I think that it is the right time for me to achieve this Master’s degree. My work experience has provided me with a good grounding in the principles of engineering as well as practical experience in the practice of engineering, however, I understand that specialized knowledge in the field of sustainable energy systems is necessary for the next level of growth in the practice of engineering. The increasing attention to environmental protection and shift towards renewable energy sources can be considered as the perfect timing for me to gain the necessary knowledge and skills, that are required to enter and become the beneficial figure in this emerging field.

**Why Germany and why Ruhr-Universität Bochum?**

Germany has always been considered a country with professional engineers and environmental consciousness. As the country boasts one of the developed renewable energy industries as well as possessing a powerful industrial potential, it is possible to consider its perspective to study sustainable engineering in this country. Studying in Germany I will be among the best trainers I will be able to implement skills as well as I will be in touch with the technological development in the automotive sector.

The emphasis on research and the novel ideas evident at Ruhr-Universität Bochum, the university affords me the opportunity to accomplish my academic and career aspirations. It is important to note that all of the university’s laboratories, professors, and focus on preparing students for practice will give me the necessary set of skills for effective work. Also, this university focuses more on practical experience and less on theoretical studies.

**Future Goals:** I expect to enhance fixed-schedule knowledge of major multi-energy systems’ conditions and perform this Master’s program’s coursework to successfully return to the job as a professional with new learning in sustainable energy systems. Ideally, I want to be involved in projects that deal with renewable energy technologies to assist businesses phase out their conventional energy sources. Locally in the long term, my goal is to work in managerial and executive capacities in the area of sustainable engineering so that I can constantly help in the advancement of the field and in the fight against climate change.

**Thank you for considering my application.**

**Ketan Subhash Patel**