

Declaration of intent

Prospective student **Joshitha, Lakshminarayana** is applying to the esteemed **HS Karlsruhe's MS Sensor Systems Technology program**. This letter outlines my academic background, work experience, and reasons for choosing this prestigious course, therefore acting as a declaration of intent.

Over my academic career, I have regularly shown a great affinity for **Bachelor of electronics and communication engineering**. Having graduated from Visvesvaraya Technological University, Belagavi, India, with a **CGPA of 7.17 (German Grade: 2.69)**, I have developed a strong basis in fundamental areas including Basic Electronics, Engineering Graphics, Network Theory, Analog Circuits, Electromagnetic Waves, Microwave and Antennas, Cryptography, and Network Security. My previous schooling consists in obtaining **76.16% (German Grade: 2.06)** in the Indian Certificate of Secondary Education Examination in 2018 in the Pre-University Examination in 2020. My bachelor's thesis on **"Currency Detection and Verification Using Image Processing"** and the project on **"Human Suspicious Activity Detection Using Machine Learning"** have also sharpened my knowledge of experimental design and data processing. These encounters have strengthened my desire in working in information and electrical engineering. I also took the **IELTS and scored 6.5 (B2 level)**, with individual marks that show my English language competency.

Working in the R&D - Wireless Department from August 2023 to September 2023, my **intern at Tejas Networks Ltd., Bengaluru, India**, has acquired invaluable professional experience. I worked with cross-functional teams during this internship to help with data-driven decision-making and process optimization. During this time I also become quite interested in sensor systems technology. In addition, the Ministry of Defence, Government of India, and TEDxBNMIT2024 have issued **various certificates** of gratitude and recognition for my work.

Pursuing the MS Sensor Systems Technology program at HS Karlsruhe appeals to me because of my love of designing sensor systems able to solve practical problems. Participation in a study on Human Suspicious Activity Detection Using Machine Learning had a major impact on my choice. This study sought to use a multi-model method to detect unusual behavior in pedestrians thereby enhancing urban surveillance systems. This encounter piqued my fascination in sensor systems and their ability to improve urban safety and security.

Because Sensor Systems Technology provides a special combination of technical knowledge and useful abilities, I wish to study it. Classes such Advanced Sensor Technologies, Signal Processing, and Sensor Data Fusion especially interest me. These classes will equip me with the required tools to grasp and grow creative sensor systems. I think this degree will provide me with interpersonal skills as well as technical knowledge, thereby helping me to be a useful fieldworker.

One outstanding institution with great reputation for sensor system technological quality is HS Karlsruhe. With courses like Advanced Sensor Technologies and Sensor Data Fusion in the strong curriculum of the institution, I want to get thorough knowledge and useful skills. Furthermore, the university's modern research facilities and internationally known staff create the perfect environment for intellectual development and scholarly investigation. The active student community and the lovely city of Karlsruhe, which presents many chances for both personal and professional development and a rich cultural experience, also appeal to me.

Germany's standing as a worldwide leader in technological advancements—especially in the field of sensor systems technology—helps me to desire to apply there. Since Germany boasts much better educational standards than other countries, I want to remain here. The exposure, variety, and rich German culture I will encounter here while a student excites me. Studying in Germany will allow me to immerse myself in a new cultural setting and learn from the top in the area, so helping me grow both personally and professionally.

After finishing this degree, I see myself employed in Germany in positions such **Sensor Systems Engineer, Research Scientist, or Application Engineer**. Using my knowledge to solve challenging real-world challenges and supporting research and development in sensor systems technology excite me. It will allow me to put my skills to use creating creative ideas and stretching the bounds of sensor systems technology.

In essence, my excellent academic background, proven language competency, and great will to work in sensor systems technology equip me for the MS Sensor Systems Technology program at HS Karlsruhe. This esteemed university will definitely provide me with the necessary intellectual and practical skills, which will enable me to have a long-term impact on society and greatly help the swiftly expanding profession to flourish.

I value your giving my application some thought.

Indeed, sincerely
Joshitha, Lakshminarayana