

FSQ Experts make technology safe for humans!

Why does FSQ Experts exist?

Our customers are developers of high-end automated products. They want to place safe and high-quality products on the market on time and within budget. We support them by raising the quality of development processes and ensuring safety compliance. We place very high demands upon ourselves with regard to technical competence and customer satisfaction.

To support our team of experts we are looking for a student to support in the project

Master Thesis Position for Product Safety in Project “HeLios”

Motivation and Goal

Rapid technological development in the past decade has provided opportunities to allow vehicles to detect and react to their surroundings and to provide new functions to aid driver safety and comfort. So far, this development has been primarily motivated by passenger vehicles and lorries, but the same technological developments are now reaching into other vehicle types. The aim of this project is to develop a highly automated / autonomous freight-bicycle suitable for carrying goods within an urban environment. The multi-modal nature of the freight-bicycle offers convenience and efficiency to the end-user, but also new challenges during the product design and safety analysis phases.

Description

This is a research project done in consortium with multiple partners, including FZI Forschungszentrum Informatik and Ingenieurgesellschaft Auto und Verkehr GmbH. The project involves analysing new technology and processes. FSQ Experts GmbH role in the project is to ensure product safety for the highly automated bike. A master thesis could cover the following possible topics:

- ✓ Assessing risks to the rider and other traffic participants for all relevant use-cases, by combining Functional Safety (FuSa) and Safety of the Intended Functionality (SOTIF) analyses in an efficient and holistic way:
 - Combined risk analysis and evaluation
 - Identify and utilize process overlaps
- ✓ Confirming and verifying the product safety of that technology using state-of-the-art safety processes, as the Systems Theoretic Process Analysis (STPA)
 - Analysis of processes related to the bicycle
 - Ensure best-practice analyses

You in our Team

You are the right one for this project if you

- ✓ are a student in Engineering, Mechatronics, Computer Science or comparable studies.
- ✓ are looking for a topic for your bachelor or master thesis.
- ✓ are creative, self-organized, reliable and have exceptionally good scores.
- ✓ are proficient in German and English.
- ✓ have the ability to work autonomously within a larger project.
- ✓ have already some insights on safety analyses or safety standards (e.g. ISO 26262).
- ✓ are curious about how automated driving works, and how it can be developed.

FSQ as your new workplace

You would like to work with us in Munich. You expect

- ✓ a respectful way of dealing with each other.
- ✓ an open appreciative way of communicating.
- ✓ to be part of a motivated team where we learn from each other on a daily basis.
- ✓ a bright, agile and modern company.

When do we meet?

We look forward to hearing from you at recruiting@fsq-experts.com or [+49 \(0\) 160 15 64 118](tel:+4901601564118), so that we can arrange a personal meeting.

Join us to make technology safe for humans!

