

Silicon Mobility

Internship Description

Functional Safety Assessment Stage (SM-STC003 / 2022)

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What we offer

Company	<p>SILICON MOBILITY SAS (<i>registration number 815 085 659 000 RCS Grasse</i>) <u>Head office</u> : Les Aqueducs – Bât 2 – 535, route des Lucioles – 06560 Valbonne Sophia-Antipolis</p> <p>The Automotive industry is living a revolution. Electrification, autonomous driving, diverse mobility, and connectivity are trends that are changing the industry’s rules. Among all decisive topics revolutionizing cars in the next future, Silicon Mobility is committed to supporting the rapid advent of electric and hybrid cars.</p> <p>Silicon Mobility is a technology leader for cleaner, safer, and smarter mobility. The company designs, develops and sells flexible, real-time, safe, and open semiconductor solutions for the automotive industry used to increase energy efficiency and reduce pollutant emissions while keeping passengers safe.</p> <p>We are looking for a motivated candidate to join our company in Sophia-Antipolis on the French Riviera.</p> <p>Please contact us: internship2022@silicon-mobility.com</p>
Offer ref.	SM-STA 001-2022
Subject – Offer title	Functional Safety Assessment Stage
Duration	5-6 months– between February/March/April and September 2022
Work hours	35 hours per week, job location at Silicon Mobility office
Education	Last year of Masters (BAC+5 or equivalent)
Content/ mission	<p>Silicon Mobility develops solutions for the control of electric vehicles. These systems are safety critical and integrate functional safety compliant to the ISO 26262 standard.</p> <p>The objective of this internship is to run internal assessment of the Functional Safety of Silicon Mobility products. The internship activities will be planned, executed, and verified in collaboration with other teams in the company (R&D, Quality, Product, etc.). The intern will report to the functional safety manager.</p> <p>The project is split into three phases:</p> <ol style="list-style-type: none"> 1) Exploration. The elements to explore and to understand are: <ol style="list-style-type: none"> a. Hardware: OLEA FPCU semiconductor product? b. Software: OLEA APP software product? c. The ISO 26262 :2018 standard 2) Evaluation <ol style="list-style-type: none"> a. Confirmation reviews of Work Products, in regard to ISO 26262 requirements and/or recommendations. b. Review of compliance of the company’s development procedures and template accordingly to the company Quality Management System in the extend of ISO 26262 with ISO 9001, A-SPIICE and IATF 16949 c. Prospection on state-of-the-art regarding functional safety concepts, for inverter and DC/DC converters applications d. Safety analysis review to confirm the safety-related risks (DFA, FTA, FMEA, FMEDA) 3) Improvements <ol style="list-style-type: none"> a. Propose recommendations for improvement after confirmation reviews b. Contribution, support for procedures and/or templates c. Improvement of the test flow: fault injection, robustness test, endurance tests, etc: feasibility, development of a test bench, verification on a product, and act in the QMS d. Safety requirements after state-of-the-art feedback and safety analysis feedback e. Writing and support for safety manual, errata documented information evolution
Profile required	Student, end of engineer cycle, or safety engineer

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Expected
Skills/knowledge

- Rigor,
- Good personal relationship skills, an ability to listen,
- Pragmatism, initiative, and creativity,
- Good level English,
- Language C, Excel, Word,
- Awareness of functional safety,
- General culture of microcontrollers, embedded software, real-time control,
- General culture of electric vehicle control (inverter, DC-DC, OBC) and
- General culture of vehicle architecture (VMS, BMS, other systems)

Remuneration

€1000/month + Tickets Restaurant + Public transportation

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