

Silicon Mobility

Apprenticeship Description

FPCU Functional Safety (SM-STA 008 / 2023)

PUBLIC

REF: SM-HR-T14-02.1_Internship_Apprenticeship Offer

© SILICON MOBILITY 2023



What we offer

Company	SILICON MOBILITY SAS (registration number 815 085 659 000 RCS Grasse) <u>Head office</u> : Les Aqueducs – Bât 2 – 535, route des Lucioles – 06560 Valbonne Sophia-Antipolis 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. 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.
	We are looking for a motivated candidate to join our company in Sophia-Antipolis on the French Riviera. Please contact us: internship2023@silicon-mobility.com
Offer ref.	SM-STA 008-2023
Subject – Offer title	FPCU Functional Safety
Duration	3 months internship + 12 months from September 2023 to September 2024
Work hours	35 hours per week, job location at Silicon Mobility office
Education	Last year of Masters (BAC+5 or equivalent)
Content/ mission	As part of the development of its product offering, Silicon-Mobility has started the development of a new generation of FPCU components. This innovative architectural component is based on a multi-core architecture combined with a patented real-time subsystem and proprietary reprogrammable logic structure. The proposed apprenticeship addresses a specific activity in the System on Chip (SoC) development team: evaluation of the functional safety of the component using state of the art tools. The aim is to ensure functional safety measures are catching all possible functional issues and to provide metrics for certification.
	The following activities will be carried out during the apprenticeship: • Learning and understanding of the architecture and content of the FPCU. • Understanding and participation in the functional safety analysis. • Participation in the development of the safety test plan. • Develop additional tests. Essentially in C language plus a few tests in SystemVerilog / Verilog. • Test Debug • analysis of coverage reports.
Profile and skills required	For this apprenticeship, we are looking for a student in the field of microelectronics. • A strong general culture in the development of embedded systems on digital chips is required. • The qualities of autonomy, rigor and ability to work as a team are important. • A good level of English is required. • Good foundation in digital hardware will be appreciated. • Knowledge of the C language. • A knowledge of the VHDL or Verilog language is a plus.
	• Functional safety concepts and methodology (ISO26262 standard). • Knowledge development on Systems on Chip (SoC) • Development of a test plan. • Embedded software development in C.
Skills developed during the internship	

PUBLIC

REF: SM-HR-T14-02.1_Internship_Apprenticeship Offer

© SILICON MOBILITY 2023

	• Digital module test development in Verilog. • Use of simulation and digital debug tools (QuestaSim or equivalent) • Use of fault simulation tools. • Use of configuration management tools (SVN) • Methodology and Quality management skills
Remuneration	From 1400€/month + Lunch tickets + 50% of public transport

PUBLIC

REF: SM-HR-T14-02.1_Internship_Apprenticeship Offer

© SILICON MOBILITY 2023

