Silicon Mobility

Internship Description

OLEA APP Configuration Software on Automotive chip

(SM-STC009 / 2021)

Internship Description

Company	**SILICON MOBILITY SAS** *(immatriculée 815 085 659 000 28 RCS Grasse)* Siege social : Les Aqueducs – Bât 2 – 535, route des Lucioles – 06560 Valbonne Sophia-Antipolis The Automotive industry is living a revolution. Electrification, autonomous driving, diverse mobility, connectivity are trends that are drastically changing the industry's rules. Among all decisive topics revolutionizing cars in the next future, Silicon Mobility is committed to support 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 good candidate to join our R&D team working in Sophia-Antipolis on the Côte d'Azur. Please contact us at: **internship2021@silicon-mobility.com**
Offer Number	SM-STC009-2021
Project Title	OLEA APP Configuration Software on Automotive chip
Period	6 months – between February and September 2021
Working hours	35 hours a week at Silicon Mobility office
Income	1000€/month + Tickets Restaurant
Student level	Internship for Master/Engineer Degree
Project Description	To enhance its OLEA® APPLICATION product, Silicon Mobility identifies the needs to offer its customers a software solution to help with the application and safety configuration of these products. The Silicon Mobility solution is based on OLEA® FPCU (Field Programmable Control Unit that embeds a CPU core, programmable logic, memories and peripherals. This internship consists in analysing, defining, developing and testing this solution. The internship includes several tasks: 1. Requirements analysis In this task, the intern will have to learn the architecture of OLEA® FPCU and their motor control applications. A particular attention will have to be done with interface and resources used for the motor control application and its safety concept. It will be necessary to analyse existing configuration on actual application and to find the most appropriated new solution. 2. System specification Based on the previous analysis and in relation with R&D team as well as support customer team, the intern will have to write a detailed specification of the solution. This specification shall cover all following aspects: • Host software design, configuration and integration principles • Embedded software design for code generation • User Guide and engineering documentation conform to ISO 26262 standard. 3. System development During this task, the intern will have to develop, integrate, and validate the different components of the embedded software.
Profile	For this internship we are looking for a candidate with good knowledge on embedded systems and embedded C programming. Good skills in hardware design for embedded system would be appreciated.

	The good candidate will be autonomous, rigorous with a strong team spirit. English speaking is required.
Skills developed	• General knowledge in microcontrollers' development • Development of embedded software on processor ARM • Requirement analysis and specification writing • Software development on multiplatform (Linux / Windows) • Notions of planning and project management • Quality management skills