

Silicon Mobility

Internship Description

Configuration development
for E-motor Control Software

(SM-STC005 / 2022)

What we offer

Company	<p>SILICON MOBILITY SAS (<i>immatriculée 815 085 659 000 28 RCS Grasse</i>)</p> <p><u>Siege social</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, 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 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 R&D team based in Sophia-Antipolis on the Riviera.</p> <p>If you are interested, please contact us and send us your application and CV to : internship2022@silicon-mobility.com</p>
	<p>Offer ref.</p> <p>SM-STC005-2022</p>
Subject – Offer title	Development of Configuration for E-motors Control Software
Duration	6 months– between February and September 2021
Work hours	35 hours per week
Work place	Silicon Mobility office, potentially teleworking sanitary conditions require it
Education	Internship for Master/Engineer Degree
Content/ Mission	<p>To enhance its OLEA® APPLICATION product offering, Silicon Mobility strives to provide its customers with a software solution to help them simplify the configuration of the application and its safety features. The Silicon Mobility solution is based on OLEA® FPCU (Field Programmable Control Unit) that embeds a CPU core, programmable logic, memories, and peripherals.</p> <p>During their assignment, the trainee will join the R&D system and software development team.</p> <p>This internship aims at analyzing, defining, developing the configuration, and testing this solution.</p> <p>During intership period, several tasks will be addressed:</p> <ol style="list-style-type: none"> 1. <u>Requirements analysis</u> In the course of this task, the intern will learn the architecture of OLEA® FPCU and its applications (Inverter, DCDC). Particular attention will be paid to the interfaces and resources used by the applications and their safety concept. It will be necessary to analyze existing configurations on actual inverter applications and to propose the most appropriate and generic one. 2. <u>System specification</u> Basing on the previous analysis, the intern will have to write a detailed specification of the solution in collaboration with other R&D team members as well as the customer support team. This specification shall cover following aspects: <ul style="list-style-type: none"> • Host software design, configuration, and integration principles • Embedded software design for code generation • User guide and engineering documentation compliant with the ISO 26262 standard. 3. <u>System development</u> During this task, the intern will have to develop, integrate, and validate the different components of the embedded software.



Profile required	<p>For this internship, we are looking for a candidate with good knowledge of embedded systems, embedded C programming, and high-level programming language. Good skills in hardware design for embedded systems would be appreciated. The candidate shall be autonomous, rigorous with a strong team spirit.</p> <p>English speaking is required.</p>
Expected Skills/ Knowledge	<ul style="list-style-type: none"> • General knowledge in microcontroller development • Development of embedded software on ARM processor • Requirements analysis and specifications writing • Software development on multi-platform (Linux / Windows) • Notions of planning and project management • Quality management skills
Remuneration	<p>1000€/month + Lunch tickets (Tickets Restaurant)</p>