

Silicon Mobility

An Intel Company

Internship Description

Development and Verification of MATLAB Simulink Models *(SM-STC 001 / 2025)*



What we offer

<p>Company</p>	<p>SILICON MOBILITY SAS (registration number 815 085 659 000 RCS Grasse)</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: recruitment@silicon-mobility.com</p>
<p>Offer ref.</p>	<p>SM-STA 001-2025</p>
<p>Subject – Offer title</p>	<p>Development and Verification of MATLAB Simulink Models</p>
<p>Duration</p>	<p>5-6 months– between February/March/April and September 2025</p>
<p>Work hours</p>	<p>35 hours per week, job location at Silicon Mobility office</p>
<p>Education</p>	<p>Last year of Masters (BAC+5 or equivalent)</p>
<p>Content/ mission</p>	<p>The Silicon Mobility solution is based on OLEA® FPCU (Field Programmable Control Unit) that embeds a CPU core, programmable logic, memories, and peripherals. This hardware solution uses a model-based design framework under MATLAB developed by Silicon Mobility.</p> <p>The intern will participate to the activities of the R&D system team. It will be responsible of developing Simulink model based on requirements and a target hardware, defining and applying a verification method to ensure that developed Simulink models have the same behaviour as the version embedded in the FPCU.</p> <p>This project will be divided into 3 main phases:</p> <p><u>Ramp-up:</u></p> <ul style="list-style-type: none"> • Learning phase on the FPCU • Usage of the framework with a simple example <p><u>Model specification and development:</u></p> <ul style="list-style-type: none"> • Analyse the existing hardware specification. • Specify the model functionality. • Develop the model (using MATLAB Simulink) • Integrate the model in the automatic code generation flow. <p><u>Tests specification and Verification:</u></p> <ul style="list-style-type: none"> • Specify a method to verify Simulink Models (using potentially MATALB and RTL simulation tool as QuestaSim) • Precisely describe the test method (with its specificities) • Develop the test and apply it. <p>Report issue(s) to development team</p>
<p>Profile and skills required</p>	<p>For this internship, we are looking for a candidate with:</p> <ul style="list-style-type: none"> • knowledge of Hardware design for embedded system • C/C++, Java, Verilog or VHDL language • knowledge of Matlab Simulink (would be appreciated) • good English level • autonomy, rigor, strong team spirit, strong problem-solving skills • Quality approach



Skills developed during the internship

- Application software development
- Matlab/Simulink/Coder tools and several toolboxes.
- MATLAB® language
- General knowledge in microcontroller development
- Requirement analysis and specification writing
- Methodology and Quality management skills

Remuneration

From 1400€/month + Lunch tickets + 50% of public transport

