

# Silicon Mobility

## Internship Description

### SoC TOP-LEVEL Integration & Tooling (SM-STC 005 / 2024)



## What we offer

Company	<p><b>SILICON MOBILITY SAS</b> (registration number 815 085 659 000 RCS Grasse)</p> <p><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. Please contact us: <a href="mailto:internship2024@silicon-mobility.com">internship2024@silicon-mobility.com</a></p>
Offer ref.	SM-STC 005-2024
Subject – Offer title	SoC TOP-LEVEL Integration & Tooling
Duration	5-6 months– between February/March/April and 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	<p>As part of its product roadmap, Silicon-Mobility is developing its new generation of System-on-Chip called OLEA® FPCU (Filed Programmable Control Unit). This innovative architectural component is based on a multi-core architecture combined with a patented real-time subsystem including an embedded programmable logic structure.</p> <p>The principal goal of the internship is to build a reduced version, but functional, of the SoC including basic modules with a RISC-V CPU, interconnect network module, communication modules and more.</p> <p>The following activities will be carried out during the internship:</p> <ul style="list-style-type: none"> <li>• Define and specify the simple SoC which will be used as a template.</li> <li>• Create the Top-Level using our Top-Level creator tool.</li> <li>• Validate it with integration tests (RTL simulation).</li> <li>• Implement the start new project function in our Top-Level creator tool.</li> <li>• Elaborate User Guide explaining the different steps of SoC integration from scratch using the start new project function.</li> </ul>
Profile required	<p>For this internship, we are looking for a student in the field of microelectronics.</p> <ul style="list-style-type: none"> <li>• Good knowledge of SoC design and architecture and application software development</li> <li>• Autonomy, rigor, strong team spirit, strong problem-solving skills</li> <li>• A good level of English is required.</li> <li>• Knowledge of Hardware design for embedded systems (would be appreciated)</li> </ul>
Expected Skills/knowledge	<ul style="list-style-type: none"> <li>• Application software development</li> <li>• JAVA and/or Groovy language</li> <li>• RTL description with Verilog language</li> <li>• General knowledge of microcontroller development</li> <li>• Quality approach</li> </ul>
Remuneration	€1400/month + Tickets Restaurant + Public transport

