

Location: Sophia-Antipolis, France  
Employment type: Student  
Contract type: internship

**Reference: SM\_STC\_004**

## INTERNSHIP FOR DEVELOPING AN ELECTRICAL POWERTRAIN DEMONSTRATOR AND IMPROVING PRODUCT DOCUMENTATION

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.

The Company is opening a **6 to 9 month INTERNSHIP** position in its main Research and Development center ideally located in the Sophia-Antipolis Technology Park on the French Riviera.

You are a brilliant and passionate by embedded software development for Automotive Applications? You want to support the development of disruptive products accelerating the car's powertrain electrification? At Silicon Mobility, we like to light up our employee's potential. Are you up for the challenge? **Contact** us: send your resume and cover letter to [hr@silicon-mobility.com](mailto:hr@silicon-mobility.com)

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### ROLE & MISSIONS

As part of the PRODUCT team, you will be in charge of:

- 1) Developing/Porting an electrified powertrain application mock-up, HEV motor control or power converter, demonstrating the benefits of our product (FPCU)
- 2) Improving product documentation quality and documentation generation workflow

Primary responsibilities of the position include:

- Development and simulation of a control algorithm under Matlab/Simulink with respect to powertrain electrification (e.g. Inverter, DC/DC, BMS, ...)
- Implementing and testing the control algorithm on the OLEA® T222 FPCU platform in a demonstrator
- Creation of presentation material and documentation related to the demonstrator
- Documentation improvement on the content (English) and the related documentation toolchain (PTC:EPIC)
- Understanding and testing of Silicon Mobility products and toolchains

The position requires pro-active involvement with all departments of the Company.

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### REQUIRED SKILLS AND EXPERIENCE

EDUCATION:

- Student of Bachelor/Master in Engineering/Science (Electrical or Automotive)

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#### TECHNICAL SKILLS & EXPERIENCE:

- C programming skills, with the focus on embedded programming
- Software development cycle and techniques
- Model based design using Matlab/Simulink
- Electrical powertrain (e.g. battery, energy conversion systems, inverter)
- Content definition using XML templates and its interpretation using XSL stylesheets
- MS Office

#### LANGUAGE SKILLS:

- Fluent in English
- German speaking is a plus
- French speaking is a plus

#### BEHAVIORAL SKILLS:

- Good presentation and communication skills
- Time management
- Pro-active work attitude
- Independent and team working
- Constant quality improvement

