

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

Reference: SM_STC_007

INTERNSHIP: DEVELOPMENT OF AN ON BOARD CHARGER DEMONSTRATOR

The automotive industry is living a revolution. Electrification, autonomous driving, diverse mobility and 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 months 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 student in power electronics and power systems and interested in 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 Internship2021@silicon-mobility.com

ROLE & MISSIONS

As part of the Field Application Engineering team, you will be in charge of developing a mock-up of an On-Board-Charger (OBC) and DC to DC Converter (DC-DC) applications highlighting the benefits of our OLEA product for demonstration purpose.

Primary responsibilities of the internship include:

- Development and simulation of a control algorithm under Matlab/Simulink
 - o Develop control for Power Factor Correction Stage
 - o Develop control for DC-DC stage
- Building of an OBC mock-up based on the OLEA® T222 FPCU platform and a PFC + DC-DC power stage board.
- Implementation and test of the control algorithm on the mock-up
- Creation of documentations (user's manual and application notes) and associated presentation materials
- Document 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.

REQUIRED SKILLS AND EXPERIENCE

EDUCATION:

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

TECHNICAL SKILLS & EXPERIENCE:

- Model based design using Matlab/Simulink
- Power electronics
- Control command
- C programming skills, with the focus on embedded programming
- Software development cycle and techniques
- 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
- 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

