

Location: Sophia-Antipolis, France  
Employment type: experienced professional  
Contract type: permanent contract

**Ref: PROD\_ADV**

## AUTOMOTIVE APPLICATION CONTROL EXPERT

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, an Intel company, is a technology leader for cleaner, safer, and smarter mobility. The company designs, develops and sells flexible, real-time, safe, and open semiconductor solutions named FPCU (Field Programmable Control Unit) for the automotive industry used to increase energy efficiency and reduce pollutant emissions while keeping passengers safe.

The Company is opening a "Automotive Application Control Expert" 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 Automotive Application Control Expert for Automotive Applications? You want to support the development of disruptive products accelerating the car powertrain electrification? At Silicon Mobility, we would like to light up our employees' potential. Are you up for the challenge? Contact us and send your resume and cover letter to [recruitment@silicon-mobility.com](mailto:recruitment@silicon-mobility.com)

---

### ROLE & MISSIONS

Role: Automotive Application Control Expert  
Reporting: Vice-President Product

As part of the Product team, you will be in charge of advanced developments.

Silicon Mobility offers a unique new architecture of semiconductors for the automotive market with its FPCU (Field Programmable Control Unit) delivering unparalleled Real-time, Safe and Secure performances. You will be in charge of advanced development related to electric powertrain control (eMotor control, DCDC converter and On-Board Charger) and domain/zonal control applications using your knowledge and expertise in signal processing and/or Computing Neuronal Network algorithms to be executed on the Company's FPCU.

You will be in charge of the following activities:

- Expertise on power control based on signal processing algorithms and/or on Artificial Intelligence applied to electrified vehicle including expert opinions on relevant technology areas to contribute to strategic planning and product roadmap.
- Lead advanced development and proof-of-concept projects to be realized under simulation and on real targets in collaboration with the product team.
- Work within a cross-functional team to translate prototypes to products and assist the R&D development on the identified field of technical risks.
- Contribute to porting and testing advanced technologies on experimental vehicles with strategic customers and partners
- Face Customer on strategic and pilot developments

- Translate advanced development findings in high-quality papers for world-class journal publication and/or patent submissions
- Pitch research results at conferences and symposiums
- Collaborate closely with EU research universities
- Mentor research interns and PhD students

---

## REQUIRED SKILLS AND EXPERIENCE

### EDUCATION:

- Preferred: PhD in Electronic/Electrical Engineering with focus on Robotics/Motor control and/or power electronics and/or Machine Learning/ AI. Strong publication record is a plus.
- Alternatively, MSc in Electrical Engineering with strong focus on motor controls and/or power electronics.

### SKILLS & EXPERIENCE:

- Experience: at least 5 years as research Scientist (including thesis) or a minimum of 10 years of expertise on the automotive industry with track records on electrification application such as inverter, DC-DC converter and/or IA.
- Strong knowledge on signal processing
- Strong knowledge of Matlab/Simulink
- Knowledge on Finite Element Model (FEM) simulation
- Hands-on coding skills in Python, C/C++, Model based, ANSYS software
- Coding experience on ML/CNN frameworks is a plus
- Hardware-In-the-Loop validation experience is a plus
- Knowledge and experience in embedded system designs including micro-processor, micro-controller, DSP and basic electric circuits is a plus.
- Good written and oral communications skills including ability to format differentiated positioning and messaging.
- Ability to build strong work relationships across all levels of the organization, with specific focus on sales and product management.
- Proven track record of performance in a fast-paced environment and organizational skills to manage multiple projects with tight deadlines effectively

### LANGUAGE SKILLS:

- Fluent in English
- Knowledge in French, German, Chinese or Japanese is a plus

### BEHAVIORAL SKILLS:

- Self-starter who truly enjoys working in a fast-paced, high-growth and start-up environment.
- High degree of initiative and a proven problem solver
- Strong ability to adapt to different interlocutors and negotiate
- Strong organization skills, exhibits excellent time/priority management
- Willingness to travel internationally