



## Are you looking for a new challenge?

Sécheron is a recognized market leader in Traction Power Solutions for railway. In support of the global growth of our substation business we are seeking a

## **POWER ELECTRONICS CONTROL ENGINEER**

### Role Summary/Purpose:

As a Senior Control Engineer you will be responsible for the design, specification and tuning of control algorithms for power electronic converters for energy recovery applications in railway systems. You will demonstrate independence and sound technical judgment, identify problems and formulate solutions. You will take an innovative approach to problem-solving and share technical knowledge with others in the group, team and across the organization.

### Your mission:

- Develop, implement, and maintain advanced control technologies and estimation algorithms for energy recovery converters
- Development and rigorous theoretical and experimental evaluation of performance of converter control algorithms and system models
- Collaborate with design engineers of various disciplines to define control system requirements and drive equipment requirements for controllability
- Write, test, and develop requirements for converter application code on DSP platforms
- Technology proof-of-concept and final validation of control system solutions and tuning, including field-tests

### Your profile:

- Master's degree in Electrical engineering or similar with a focus on controls and a minimum of 5 years of experience
- Experience in both classic and modern controls applied to Power electronics such as grid connected converters or motor control. Experience in Railway applications is an advantage
- Experience with new control algorithm development, implementation and validation techniques: Software in the Loop (SIL), Processor in the Loop (PIL), Hardware in the Loop (HIL)
- Proficient in Matlab/Simulink for the design and validation of control systems
- Knowledge of Vector control, PLL grid synchronization methods, instantaneous power theory, multivariable feedback control, closed-loop current regulation
- Working knowledge of C/C++ and other high-level Programming Languages is a plus
- English mandatory, French preferred
- A positive attitude, initiative, pro-activeness and an enthusiasm and passion for control engineering
- Demonstrable success in achieving and exceeding internal customer milestones
- Good problem solving and solution building skills

Your success in our globally operating company will be supported by an ambitious international team, excellent working conditions as well as a competitive compensation and benefits package.

Are you attracted by this opportunity? Please send your application to:

**Sécheron SA**  
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Rue du Pré-Bouvier 25 - 1242 Satigny - Geneva - Switzerland  
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Let your talent join our  
ambitions to shape our  
common future !