

## EMS control law validation testing graduate engineer

### THE COMPANY

MCE-5 DEVELOPMENT is an independent technology incubator whose purpose is to transfer innovative powertrain technology from research to industry, to make motor vehicles automobiles more energy efficient and environmentally friendlier. To do so, MCE5 implements four key processes: identifying and qualifying innovative concepts; developing them to the intermediate levels of industrial maturity; commercializing them through cooperation, intellectual property and know-how transfer agreements; financing research and development investments.

MCE5 research focuses on two strategic directions: on the one hand, ultra-efficient internal combustion engine; on the other hand, ultra-clean hybrid powertrain.

MCE5 has thus developed the VCRi technology, becoming a world reference in the field of compression ratio variation for automotive engines. This technology is currently being developed in cooperation with a major Chinese car manufacturer to equip engines of its brand.

Founded in Lyon in 2000, the Company is supported by more than 700 private investors and numerous French and European public institutions.

### JOB DESCRIPTION

The EMS control law validation testing engineer will be part of MCE5 EMS development team, with the following main missions:

- Writing the specifications of the means related to the implementation of the control laws on the HIL bench (Hardware In the Loop)
- Supervising suppliers of HIL bench equipment
- Becoming MCE5 lead person for the implementation of EMS rapid prototyping means
- Contributing to EMS hardware validation using test rigs, engine test benches, engine mechatronics and assisting in software debugging
- Improving simulation quality and establishing operational relationships with simulation department
- Contributing to the specification of tests, their execution and related results analysis
- Writing reports on validation tests performed on the HIL bench
- Mastering the various sensor technologies and automotive environments

### CANDIDATE'S PROFILE

- Ideally master's-level technical qualification
- A minimum of 5 years of experience in numerical simulation
- Knowledge of automotive technologies and production concepts
- Knowledge of, and experience in engine technology and automotive components appreciated
- Fluency in oral and written French and English communication
- Ability to write technical documentation

### Tools and methodologies

- Matlab, Simulink, advanced level
- INCA, basic knowledge

### SKILLS FOR THE JOB

- Self-reliance
- Methodical, thorough
- Analytical capability
- Adaptable
- Critical sense
- Interpersonal relationship skills
- Team worker