



job offer
reference AC-OE-22-0004
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**Modelling and control engineer (F/M),
Rennes (Brittany, France), permanent contract,
30-40 k€ (ref. AC-OE-22-0004)**

The company

Acsystème is a French company specializing in systems analysis and control. With a workforce of 17 people and an annual turnover of €1.5 million as of December 31st, 2021, Acsystème enjoys a reputation for quality and seriousness with large industrial companies and innovative SMEs, in various fields such as automotive, energy, agri-food, defence or finance. It provides engineers and researchers of these industries with concrete solutions for improving the performance of their systems, thanks to the expert use of digital models.

The city

Acsystème is based in Rennes, the capital of Brittany. Rennes is a very dynamic and welcoming city with a wide range of entertainment: gastronomy, culture, sports, history, nature. It has a well-developed public transportation system and cycling network, which allow you to easily reach the company premises from anywhere. And the nearest beaches are less than 50 minutes from our offices.

The context

The development of Acsystème's activity and the diversification of our clientele have led us to strengthen our R&D team. In this context, Acsystème is recruiting a full-time modelling and control engineer (F/M) on a permanent contract, based in Rennes, starting in December 2022.

The job

As part of the research and development team, you will participate in the development of high-performance control solutions in the automotive field. Your main activities will focus on various systems such as:

- hybrid or electric vehicle: energy optimization strategy, control of the electric motor, estimation of the state of charge of the battery, control of the charging system, etc.
- driving assistance functions (ADAS): automatic parking system, adaptive cruise control (ACC), lane-keeping assistant (LKA), etc.
- automatic transmissions: gear selection strategy, gear shifting, clutch actuation, etc.

Your main missions will consist of designing, developing, and validating two types of models:

- physical systems (mechanical, electrical, chemical, thermal, etc.), relying on specific scientific knowledge about these systems or by applying numerical techniques to measured data (identification, model calibration)
- embedded control algorithms.

Models of physical systems will be used to:

- simulate and validate the control algorithms, following the MBD (Model-Based Design) approach,
- size the physical components (battery capacity, electric motor power, etc.) through simulation or numerical optimization techniques.

You may also participate in the team's technology watch and knowledge transfer (trainings). Finally, through your initiatives, you will contribute to develop Acsystème's business by relying on your professional network.

Depending on the opportunities and your preferences, the position may evolve towards extended responsibilities (technical expert, project manager, presales engineer).

Your position will be based at Acsystème headquarters (Rennes, Ille-et-Vilaine, Brittany, France).

The desired profile

You ideally come from an engineering training in automatic control, possibly supplemented by a doctorate, or you have general engineering education, with at least one specialty among mechanics, automatic control, electronics, or electrical engineering. You have a first experience in the design of control-command systems.

You have a good knowledge of:

- development in Matlab, Simulink, and Stateflow,
- modelling of physical systems (mechanics and energy, electronics, electrical engineering, etc.),
- classic automatic control techniques (PID, frequency-based tuning methods, etc.) and their application to real systems,
- writing of technical documents, and the oral presentation of a well-argued technical conversation, both in French and in English.

Knowledge in the following areas will also be appreciated:

- software quality standards (Iso 26262, Aspice, Misra)
- automatic code generation, rapid software prototyping, real-time coding
- German language, written and spoken

The following qualities will be required for this position:

- passion for technology, taste for continuous learning and business intelligence,
- ability to follow development processes rigorously,
- ability to propose technical solutions, synthesis skills,
- interpersonal skills, pedagogy, ability to justify the recommended choices and to collaborate with experts from other fields,
- sense of responsibility, ability to report,
- consideration of priorities, ability to take a step back.

A first successful industrial experience will be highly appreciated, as well as a good ability to independently manage innovative projects subject to industrial constraints (cost and deadlines in particular).

The position is open to people with disabilities.

Elements of the contract

We want to start the contract in December 2022. It is a permanent contract, including a 4 month trial period, possibly renewable once.

The position is based in Rennes (Ille-et-Vilaine, Brittany, France). You will be welcomed and trained by a manager from the Acsystème team.

Occasional trips are to be expected, mainly in Île-de-France (Paris region), depending on the projects.

The gross annual salary is 30 to 40 k€ depending on the profile. You will also benefit from profit-sharing in the company's results.

Contact

Please file your registration on this website: www.acsysteme.com/en/recrutement/

You can also send us your CV and cover letter by email to recrutement@acsysteme.com with the reference AC-OE-22-0004.

This job offer is simultaneously published in English and French versions.