



offre d'emploi
référence AC-OE-23-0005

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**Modelling and control engineer (F/M), Rennes,
France, permanent contract, 30-40 k€ (réf. AC-
OE-23-0005)**

The city

Acsystème is based in Rennes, the capital of Brittany. Rennes is a very dynamic and welcoming city with a wide range of distractions: 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.

The company

Acsystème is a French company specializing in systems analysis and control. With a workforce of 20 people and an annual turnover of €1.5 million as of December 31th, 2022, Acsystème benefits from a reputation of quality and seriousness with its customers, large industrial companies and innovative SMEs, in fields as varied as automotive, energy, agri-food, defence or finance. It provides engineers and researchers in these industries with concrete solutions for improving the performance of their systems, thanks to the expert use of digital models.

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/H) on a permanent contract, based in Rennes, from September 2023.

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:

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- 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) for motor vehicles: automatic parking system, adaptive cruise control (ACC), system for keeping the vehicle in the center of the lane, 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 scientific knowledge specific to the systems modelled (physical, mechanical, electronic, etc.) or by applying numerical techniques to known data (identification, model calibration);
- control algorithms (industrial process control, algorithms embedded in vehicles).

Models of physical systems will be used to:

- validate in simulation the control algorithms developed based on the MBD (Model-Based Design) approach,
- size the physical components (battery capacity, electric motor power, etc.) through simulation or even the use of numerical optimization techniques.

You may also be called upon to participate in the technological watch of the team 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 (expert, project manager).

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

The desired profile

You ideally come from an engineering background 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 and you have a first experience in the design of control-command systems.

You have a good knowledge of:

- development in Matlab – Simulink – Stateflow environments,
- modelling of physical systems (mechanics and energy, electronics, electrical engineering, etc.),
- classic automatic control techniques (PID, frequency approach, etc.) and their application to real systems,
- understanding and writing technical documents, and holding a well-argued technical conversation orally, in both French and English.

Knowledge in the following areas will also be appreciated:

- software quality standards (ISO26262, ASPICE, MISRA)

- German, written and spoken
- automatic code generation, rapid software prototyping, real-time coding

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, spirit of synthesis,
- 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 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 September 2023. It is a permanent contract and includes a trial period of 4 months, possibly renewable once.

The position is based in Rennes (Ille-et-Vilaine, France). You will be welcomed and trained by a technical manager from the Acsystème team. Occasional trips are to be expected, mainly in Île-de-France, 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

Send your CV and cover letter to Acsystème on : <https://careers.werecruit.io/fr/acsysteme>

You can also file your registration by email to recrutement@acsysteme.com, with this reference AC-OE-23-0005.

This job offer is simultaneously diffused in English version and in French version.