



IMT Atlantique

Bretagne-Pays de la Loire
École Mines-Télécom

JOB ADVERTISEMENT

IMT ATLANTIQUE Bretagne-Pays de la Loire

is recruiting an Associate/Assistant Professor in Software Engineering

<http://www.imt-atlantique.fr>

Start date: Autumn 2021

Keywords: Software Engineering, Model-Driven Engineering, Industry 4.0, Industrial IoT

Administrative status: Associate/Assistant Professor (civil servant of the French Ministry of Economy and Industry)

Presentation of the school

IMT Atlantique, internationally recognized for the quality of its research, is a leading general engineering school under the aegis of the Ministry of Industry and Digital Technology, ranked in the 3 main international rankings (THE, SHANGAI, QS)

Situated on 3 campuses, Brest, Nantes and Rennes, IMT Atlantique aims to combine digital technology and energy to transform society and industry through training, research and innovation. It aims to be the leading French higher education and research institution in this field on an international scale. With 290 researchers and permanent lecturers, 1000 publications and 18 M€ of contracts, it supervises 2300 students each year and its training courses are based on cutting-edge research carried out within 6 joint research units: GEPEA, IRISA, LATIM, LABSTICC, LS2N and SUBATECH.

Presentation of the scientific field:

The Department of Automation, Production and Computer Science (DAPI in French) of IMT Atlantique is recruiting an associate/assistant professor (Maitre Assistant in French) for its NaoMod team, specialized in the fields of model-driven engineering applied to Industry 4.0 and IoT.

The DAPI is located on the Nantes campus. It has around 110 members, including 44 permanent members, spread across three research groups: Software engineering and distribution, Optimization and decision support, Robotics, control and interactions. The DAPI carries out high-level research and valorization activities in these fields and provides courses in software engineering, industrial engineering and physical and cybernetic systems related to Industry 4.0.

One of the research projects of the Naomod team is to provide techniques and tools called low-code, enabling citizen-centered software engineering. In other words, low-code platforms allow non-IT individuals within a company to have access to a visual integrated development environment. Thanks to this environment, the citizen-developer will be able to use application components by drag and drop, to link them together in order to generate a new application, for the web or mobile platforms.

The candidate will aim to strengthen the Naomod team in the field of software engineering applied to the industrial internet of things. The research carried out by the candidate will focus on the design, verification and/or deployment of highly heterogeneous, distributed, decentralized, dynamic and open systems. His area of expertise should contribute to consolidate ongoing collaborations within DAPI, in particular with the STACK team but also with other teams from DAPI and LS2N. Collaborations with teams from other campuses of IMT Atlantique will also be welcome.

Among the identified scientific challenges, the candidate will propose solutions allowing (i) the specification and tooling of languages dedicated to Industry 4.0, for system configuration and rapid

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reconfiguration; (ii) the retrieval and analysis of runtime data produced by cyber-physical systems, enabling design verification and improvement at runtime; (iii) modeling, deployment and dynamic reconfiguration of heterogeneous architectures, combining different paradigms such as Cloud, Fog and Edge. If these issues have been mainly addressed from a (distributed) system point of view, the recruited candidate must show a complementarity, with a contribution in software engineering built around a convincing project.

In this context, to join our teams:

You will have strong skills in the fields of model and language engineering. Additional skills in one or more of the following areas will be highly appreciated:

1. Industry 4.0
2. Cyber-physical systems
3. Cloud-based development platforms

In the department, as a research lecturer, you will fulfil the main rôles of training, research and development in academic and industrial circles, as well as internationally.

Your scientific skills and your experience in project management will enable you to develop and participate in partnerships with partners from the economic and academic world, at regional, national and international levels.

You will contribute to the development and influence of the school through high-level publications, a proactive attitude to contract negotiation and an active contribution to the life of the school.

Your significant experience in designing and supervising teaching activities will allow you to promote learning by confronting learners with multidisciplinary problems. You are particularly interested in the competency-based approach, innovative teaching methods and the diversification of assessment methods.

Your command of English is strong enough to teach in this language.

You are really dynamic and know how to develop synergies and manage projects in training and research in a multidisciplinary environment.

Sensitive to the challenges of sustainable development and social responsibility, you act in an ethical and responsible manner and have demonstrated that these dimensions are taken into account in the projects you have carried out.

The post is based on the Brest/Nantes/Rennes campus. Travel in France and abroad is to be expected. You will be asked to submit an integration project for all the tasks described to demonstrate your motivation for the job.

(for more information on the selection criteria, consult the job description of a lecturer-researcher – Associate Professor, Assistant Professor/Senior Lecturer on the IMT Atlantique website)

Level of training and/or experience required:

- Doctorate in the field of Computer Science
- Be a citizen of a member state of the European Economic Area, enjoying its civil rights

To submit your application:

Deadline for applications: 23rd April 2021



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Complementary Information :

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