



IMT Atlantique
Bretagne-Pays de la Loire
École Mines-Télécom

IMT ATLANTIQUE

is recruiting an Associate Professor in **Digital Electronics**

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

Start date: Fall 2019

Keywords: Digital circuits design, Algorithm-Silicon Interaction, embedded heterogeneous systems, system on chip

Administrative status: Associate professor (with a management framework contract)

Required profiles

For the position in Digital Electronics, you should hold a doctorate. You have a first professional experience (post-doctorate, industrial R&D, etc.) and international experience.

You will be expected to contribute to the teaching on our various courses, more specifically on the common core engineering course and on the embedded heterogeneous systems course

You will conduct research on the interaction between algorithms and architectures where you will bring a competence in digital electronics and eventually embedded software (operating system, low-level software or input/output drivers). Depending on your skills and wishes, you are expected to apply this expertise on applications related to digital communications, cyber security or artificial intelligence.

You will contribute to the school's actions for socio-economic development and internationalisation in its various forms.

In-depth knowledge of the design tools for digital circuits and/or systems is expected.

Experience of digital circuit design is required.

Given our commitment to promoting diversity in the workplace, in particular within our Faculty, particular attention will be paid to applications from women, people with disabilities, international candidates and candidates from the entrepreneurship sector.

Position environment

The Electronics Department is based on Brest campus. It has about 40 members including 12 permanent lecturer-researchers. Research in the department is articulated around a strong interaction between algorithmic skills and digital / analog circuit design, coupled with an experimental approach. The research team is part of the CNRS laboratory Lab-STICC ("Laboratoire en Sciences et Technologies de l'Information, de la Communication et de la Connaissance"). The research activity of the team was rated « exceptional » by the national research evaluation committee (HCERES). The team contributes to standards, organizes international conferences and participates to European projects.



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Missions

Under the responsibility of the head of department and in close cooperation with the administration services, the successful candidate will participate in teaching, research, development and international development missions. He/she should be actively involved in regional, national and international partnerships. He/she will be called upon to exercise responsibilities in teaching and in collaboration with research and innovation stakeholders, and to contribute more generally to the smooth collective functioning of the school and its international influence.

In teaching, the successful candidate will:

- teach in the electronics teaching teams
- develop, deliver and coordinate different courses (lectures, practicals, tutorials, , projects, etc.) and teaching methods (project-based learning, face-to-face or distance learning) for a varied public (engineering students, master's students, interns in continuing education). Teaching associated with this open position will mainly be in the field of advanced digital electronics engineering.
- participate in activities to support the students' in-company training (company visits, internship boards, tutoring,...) or international mobility.

In research, the successful candidate will:

- carry out his/her research in relation to IAS (Interaction between Silicon and Algorithm) team. The department is seeking a candidate with skills favorably matching the interaction between algorithms and architectures. The chosen candidate is expected to provide an expertise in digital electronics and eventually embedded software (operating system, low-level software or input/output drivers). Depending on his/her skills and wishes, he/she is expected to apply this expertise on applications related to digital communications, cyber security or artificial intelligence.
- participate in the development of research projects in his or her field of expertise at the regional, national and international level.
- publish his/her work in national and international scientific journals and present it at appropriate congresses.
- provide scientific support for master's level trainees and doctoral students.

In terms of transfer to companies and within society, the successful candidate will:

- participate in and promote IMT Atlantique's actions, in particular through industrial and academic collaborations through chairs (academic or industrial), joint laboratories and other mechanisms such as standardisation or standardisation.
- contribute to the dissemination of information on research in society through popular scientific activities, publications and interventions with the general public.



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At the international development level, the successful candidate will:

- contribute actively to the school's actions as part of its international development through its research and training network: setting up partnerships, projects, participation in international training programmes (specialised masters or short programmes for example), representation of the school with partners, etc.

Conditions for applying

Level of education and/or experience required:

- Doctorate or engineer with professional experience in the field of Digital Electronics
- **And/or** Civil servant recruited through the École Polytechnique or the ENA or former student of an École Normale Supérieure with professional experience > 3 years
- **And/or** Diploma from an engineering school or equivalent with professional experience > 5 years
- **And/or** 5 years' higher education degree or equivalent, with professional experience > 5 years
- **And/or** Highly qualified company executive with professional experience > 8 years

A french CNU qualification in section 61 and/or 63 is not required but would be an advantage.

Qualification and skills

He/she should demonstrate the ability to carry out training, research and transfer of research / innovation missions:

- strong motivation for teaching, research and innovation, dynamism and potential leadership capacity in these areas.
- strong pedagogical involvement, and participation in innovative learning systems (or, , a demonstrated willingness to invest in this field).
- ability to teach and supervise teaching projects in an industrial and/or international multidisciplinary context, and knowledge of industrial and/or international environments.
- an appetite for research in partnership with the industrial world, an interest in valorisation and applications and openness towards the business world.
- an appetite for international collaboration
- the ability to teach in English
- the capacity to adapt to thematic developments and an interest in interdisciplinarity.
- the ability to develop synergies with teams other than his/her own, whether within the department, the joint research unit or more broadly within the school, in teaching or research.

A project which combines both research and teaching is required.



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ADDITIONAL INFORMATION

You can contact

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TO SUBMIT YOUR APPLICATION:

Please send an email to the following address:

recrut19-mc-elec@imt-atlantique.fr

for the attention of Marion TONDUT - HR Director of IMT Atlantique Bretagne - Pays de la Loire, a single PDF file containing in order:

- detailed CV
- motivation letter
- letters of recommendation
- report of the thesis defence
- reports of the two members of the thesis committee
- teaching and research projects
- any other information that may support your application

Application deadline: 31 March 2019