

----- JOB ANNOUNCEMENT -----

POSITION TITLE

Assistant/Associate Professor in cybersecurity

TELECOM PARIS

Télécom Paris, a school of the IMT (Institut Mines-Télécom) and a founding member of the Institut Polytechnique de Paris, is one of the top 5 French general engineering schools.

The mainspring of Télécom Paris is to train, imagine and undertake to design digital models, technologies and solutions for a society and economy that respect people and their environment. The school is committed to providing an environment conducive to the development of all students and research professors, and is voluntarily and sustainably committed to an ambitious plan for social and ecological transition. It is working to increase the number of female research professors and to reduce the disparities between men and women.

An inclusive campus on a "human scale" but with a strong international component, Télécom Paris is recognized for its proximity to companies. This public school guarantees excellent employability in all sectors and is the leading engineering school for the entire digital vertical (from hardware layers to uses).

With its excellent teaching and innovative pedagogy, Télécom Paris is at the heart of a unique innovation ecosystem, based on interaction and the importance of project mode in its training on the one hand, and its interdisciplinary research on the other. Its teacher-researchers are affiliated with two research laboratories: on the one hand, the LTCI laboratory, which is presented by the HCERES as a flagship unit in the field of digital sciences with remarkable international influence; and on the other hand, the i3 laboratory, Institut interdisciplinaire de l'Innovation (I3 - UMR 9217 of the CNRS), which pursues a multidisciplinary research program focused on innovation in the framework of a collaboration with the École Polytechnique and Mines ParisTech.

Télécom Paris is positioned as an open-air laboratory for all the major technological and societal challenges: artificial intelligence, quantum computing, IOT, cybersecurity, large-scale digital equipment (Cloud), 5G/6G, Green IT.

Based in Palaiseau, at the heart of the Institut Polytechnique campus alongside the École Polytechnique, ENSTA, Télécom Sud Paris and ENSAE, Télécom Paris also has an incubator based in Paris at the heart of the French start-up ecosystem.

SCIENTIFIC CONTEXT

Cybersecurity has become crucial in the digital age, where cyberattacks are becoming increasingly frequent and sophisticated. Businesses, governments and individuals are all vulnerable to threats such as hacking, phishing, ransomware and data breaches. Protecting information systems is now essential to prevent financial loss, damage to reputation and compromised privacy. Moreover, our growing dependence on connected technologies such as the Internet of Things (IoT) or critical infrastructures amplifies the risks, and the need for appropriate solutions.

Given the intense activity around this theme over the last few years and its foreseeable growth in the future, the Cryptography and Cybersecurity (C2) team in the Computer Science and Networks (INFRES) department needs to be strengthened by the recruitment of an assistant/associate professor in cybersecurity, capable of working in this field with most of Telecom Paris' teams, such as Autonomous Critical Embedded Systems (ACES), Networks, Mobility and Services (RMS) at INFRES department, Secure and Safe Hardware (SSH) at COMELEC department, and even the Economic and Social Sciences



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(SES) department, as well as with other teams at the Institut Polytechnique de Paris, École Polytechnique and Télécom SudParis.

From a research point of view, the team aims to develop skills in various areas of cybersecurity, including (i) the design of robust security mechanisms for future wireless networks (6G, IIoT, ITS-G5, etc.) to protect communications throughout the chain, from user terminals to remote servers, (ii) the creation of innovative solutions tailored to the security of virtualized architectures and cloud infrastructures, and (iii) the development of advanced detection mechanisms and effective automatic responses to minimize the impact of cyber-attacks.

As far as teaching is concerned, Telecom Paris has very great needs in cybersecurity, whether to give courses or to manage teaching units. This is an area that is in high demand among our students, both in our engineering courses (SR2I on Network and IT Infrastructure Security and ACCQ on algebra applied to cryptography) and in our Specialized Masters (ARC for Architecture, Network and Cybersecurity, CYBER2 for Cybersecurity and Cyberdefence and ECRSI for Expert Cybersecurity of Networks and Information Systems). The assistant/associate professor recruited will strengthen the school's ability to coordinate, design and implement courses on the security of IT networks and systems, for example in the cloud, radio communications and vehicular networks. It is also expected that the recruited assistant/associate professor will be able to take part in the general computer science courses taught in the first year.

PREFERRED SCIENTIFIC EXPERTISE

Main expertise:

Comprehensive general IT training. Theoretical and practical knowledge of secure digital architectures and security protocols, particularly in the context of wireless networks and/or cloud infrastructures. Mastery of the principles of detection and response to cyberattacks.

Other expertise required:

- Knowledge of resilience models for cybersecurity architectures;
- Additional knowledge of AI applied to cybersecurity;
- Additional knowledge of access control mechanisms.

JOB DESCRIPTION

MAIN RESPONSIBILITIES AND DUTIES

- 1. Applicants should participate in the design and implementation of courses in their scientific field.
- 2. They should conduct research.
- 3. They should participate in the development of partnerships, collaborations, and contractual agreements in their scientific field.

POSITION RESPONSIBILITIES

Teaching:

In collaboration with the other faculty members of the department:

- Provide courses consistent with areas of knowledge, skills-set, and departmental needs;
- Teach labs and tutorials for undergraduate and graduate students;



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- Serve on juries for prospective students who are applying for engineering courses, specialized masters, etc.;
- Contribute to the analysis of training needs;
- Design and organize teaching activities for undergraduate and graduate students;
- Design and implement project-based teaching;
- Supervise student projects;
- Develop courses and teaching tools in the above-mentioned field.

Research:

- Engage in research activities in the scientific field concerned;
- Write proposals and participate in projects with partners from the Institut Polytechnique de Paris, the Institut Mines-Télécom or other institutions from the academic and/or corporate world, in particular in the framework of fundamental, national, or European projects;
- Carry out industrial research contracts;
- Explore and develop partnerships within the industry and establish contractual agreements.

Coordination:

Participate in and contribute to the scientific activities of the Group (seminars, presentations, juries, etc.).

Fostering the recognition of Telecom Paris and the Institut Polytechnique de Paris:

- Disseminate research findings via scholarly writing and publication;
- Lead presentations and seminars;
- Take an active role in scholarly and professional organizations;
- Maintain close relations with academic institutions, research centers, and companies.

Other responsibilities:

- Participate in the scientific, pedagogical, and management activities of the department and/or institution;
- Where appropriate, direct and manage the staff placed under their responsibility or supervision;
- Report on the activities and results of the tasks for which they are responsible.

SKILLS



IP PARIS

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Required skills, experience, and knowledge:

- In-depth theoretical or applied knowledge in their field of expertise;
- An excellent command of spoken and written English.
- If the candidate is does not speak French, from the moment they are hired they must commit to reaching a professional proficiency of French as quickly as possible while under contract.

Preferred skills, experience, and knowledge:

- Post-doctoral or international experience in an academic or industrial laboratory is appreciated;
- Teaching experience.

Other abilities and skills:

- The ability to be an active team member in a diverse faculty, staff, and student environment;
- Strong teaching, pedagogical, and mentoring capabilities; Superb written and interpersonal communication skills.

REQUIRED QUALIFICIATIONS

Candidates with one or more of the following required qualifications may apply:

- Doctorate or equivalent;
- Civil servant recruited through the École Polytechnique or ENA or former student of the École Normale Supérieure and ≥ 3 years of professional experience;
- Holds a post-graduate degree from an engineering, business, or management school and has ≥ 5 years of professional experience;
- Holds a post-graduate degree and has ≥ 5 years of professional experience;
- Is a high-level business executive with \geq 8 years of professional experience.

DESIGNATION AND CAREER DEVELOPMENT

The person recruited will obtain the title of Associate Professor. He/she will be encouraged to obtain, as soon as possible, his/her HDR (habilitation to direct research). The HDR is one of the prerequisites to apply for promotion to Professor.

APPLICATION INSTRUCTIONS

To apply, send the following to URL RECRUITEE:

- a detailed CV (max 2 pages)
- a cover letter
- an activity report (table of activities) in research (supervision, problem,...), teaching (title, volume,...) and collective tasks (max 4 pages)
- teaching description (summary of activities, university-level teaching and continuing education project) (max 4 pages)
- research description (summary and results of activities, research project) (max 4 pages)
- copy of the 3 best publications, list of publications
- names and email addresses of two qualified persons who can give an informed opinion on the application

Contact for further information: Sébastien Canard, sebastien.canard@telecom-paris.fr

SELECTION



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The selection process consists of 4 steps:

- Elimination of applications that do not have the required qualifications
- Exchange with the host team to establish a list of shortlisted candidates
- Preliminary interview with Human Resources
- Hearing by the recruitment committee and ranking of the selected candidates
- Final interview with the Director of Télécom Paris

ADDITIONAL INFORMATION

Date posted: 5th July, 2024

Contract type: CDI (permanent contract)

Job location: Télécom Paris, 19 Place Marguerite Perey, Palaiseau 91120, France

Department/Unit: INFRES Department

Superior/Supervisor: Van-Tam Nguyen (Department Head)

Category / job title: II – C

Categories / titles agents can apply for: II – C

Send a CV and a cover letter to: <u>URLRECRUITEE</u>

Application deadline: XXX

SIGNATURES	
Van-Tam Nguyen Department Head INFRES	Nicolas Glady President of Télécom Paris
Laurent Pautet Vice-Dean for Faculty Affairs	Sophie Marain Human Resources Director & secretary general
How to apply	

Telecom Paris is an equal-opportunity employer.
All our positions are open to individuals with disabilities.