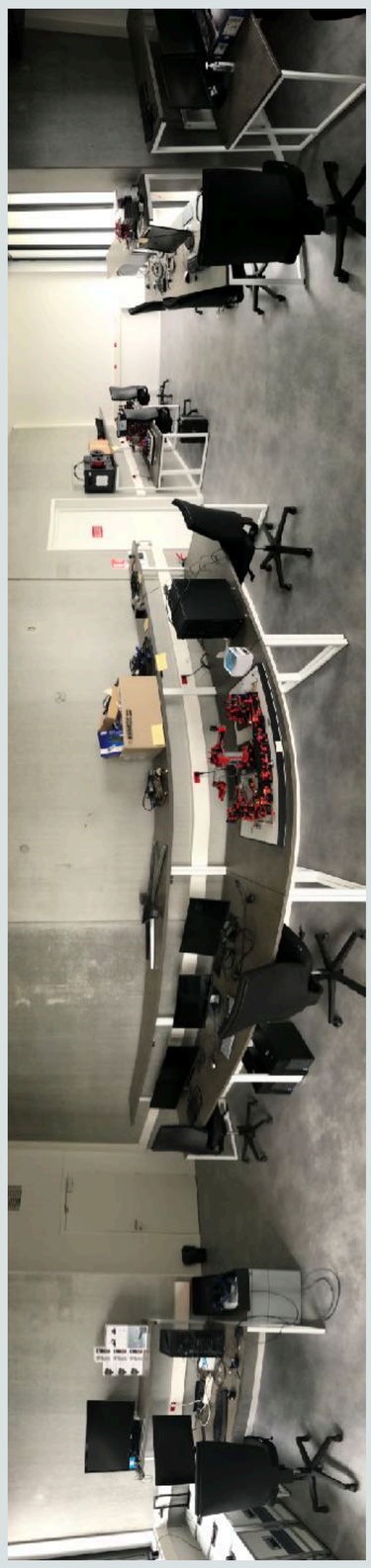
IMT Atlantique
Bretagne-Pays de la Loire
École Mines-Télécom

CHAIRE
CYBER CNI
Sécurité des infrastructures critiques

cyber-cni.fr/



We are hiring!

PostDoc (18 months/ full time 35h/w)

Distributed Ledger Based Cybersecurity

We are looking for an outstanding candidate to strengthen our research team. We offer challenging research in a rich environment with excellent research perspectives. This position is to be filled as soon as possible.

Context - the domain you will be working in

Distributed ledgers such as Blockchain offer a distributed log. It can be helpful in many ways for increasing cybersecurity. Examples are sharing information and certifying information.
Security is often handled in an isolated way by people, companies, or even sites within a company. However, collaboration can help increasing security. By sharing information, attacks can be restricted or even mitigated.
Properties of an infrastructure help securing it. Ledgers can help securing this information.

Scope - the topics you will be working on

The goal of this PostDoc is working on methods that use distributed ledger technology and help securing IT and OT systems. At the chaire there are multiple PhDs and industry projects that will have interaction with this research. You will also have the chance to regularly interact with the chair's research partners not only for discussion but also for obtaining datasets for research.

You will participate in the research at the chair including the regular interaction with PhD candidates, presentations with the industry partners, participation at fairs, etc. You will also participate in the organization of the chair. Finally, you will have the chance to also participate in the teaching at the chair if you are interested. A speciality of our teams are MOOCs. But we also have on-site teaching.

Scenarios: IT, OT, Industry 4.0, Communication infrastructures, Transportation, Energy networks, Data Centers, Banking

Keywords: Cybersecurity, Distributed Ledger, Blockchain, Ethereum, IOTA, collaboration, authentication, logging, security-by-design, adaptive secutrity

Requirements - what you should bring

Solid and proven research skills. Curiosity and motivation to work in a dynamic research environment.

Knowledge: Knowledge in some or all of the following cybersecurity topics (please refer to these in your cover letter): Distributed ledgers, collaborative security, SOC, threat intelligence, risk management, Update management, Security, Safety, Privacy, distributed approaches, AI

Languages: English (ability to read and write research papers in English), French (ability to communicate at least basically in French; courses can be taken to improve French)

Expectations - what you can expect to happen

If selected, you will have the chance to develop this research line together with the chairholder, the industry partners, and the researchers at IMT Atlantique. It is expected that part of the research gets submitted for publishing internationally. Collaboration with different PhD candidates is expected. Participation in teaching, especially MOOC creation will be possible, if wanted.

Application process

Application deadline: 30.9.2021, 3pm CEST

Please send an email with one (1) PDF including:
- a motivational letter, covering the points "requirements" and your experience
- your CV
- your certificates (esp. PhD)
- a research statement (containing your research methodologies and possible research directions you would be interested to develop including scientific literature references)
- contact addresses (mail and phone) of 1-3 people we can contact to inquire information about you and at least two reference letters

to **recruit-postdoc-2021-2@cybercni.fr**.

CHAIR OF
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Your future hosting environment: Excellence in Cybersecurity research and education in France

The hosting environment

The offered position is within one of France's finest addresses for research at a chair that is well-known for its excellence in cybersecurity.

The position is located within the technical university IMT Atlantique at the Rennes campus within the SRCD department at the chair Cyber CNI. Relocation to Rennes is required.

IMT: The Institut Mines Télécom (IMT) is France's biggest association of technical universities. IMT is a public institution dedicated to higher education and research for innovation.
It is a key player in the fusion of science, engineering and digital technology, and takes its schools' skills into the major fields of transformation in digital technology, industry, energy and the environment as well as their impact on the industry of the future, cities, health, and autonomy. For more info: https://www.imt.fr/en/imt/presentation-of-imt/

Institut Mines-Télécom

IMT Atlantique: Internationally recognized, IMT Atlantique's research positions it as one of the world's Top 400 Technological Universities. This research, conducted in the fields of digital sciences, engineering sciences, physics and management, fosters the conditions for inter-disciplinary research that is a source of innovation in response to the major challenges facing companies and society. For more info: https://www.imt-atlantique.fr/en/research-innovation

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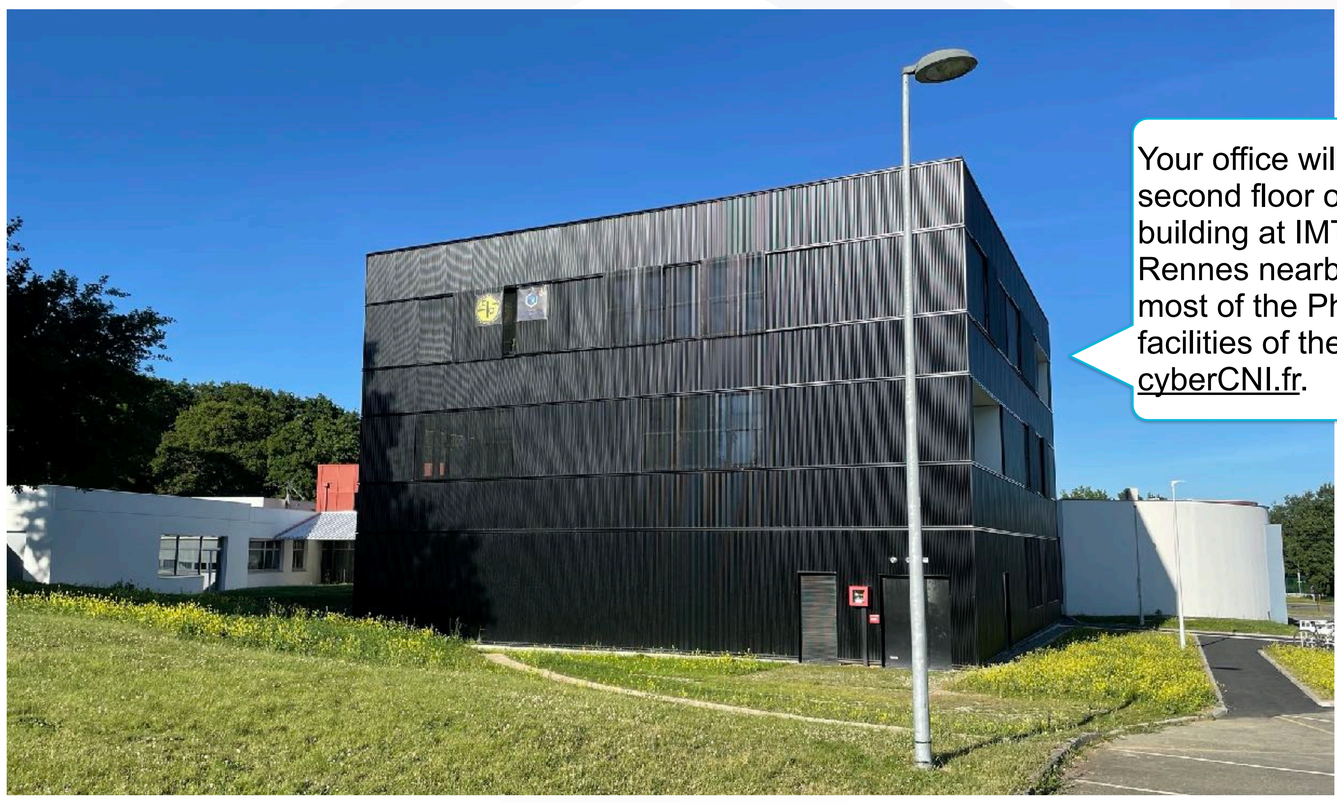

Your office will be located at the second floor of the newest building at IMT Atlantique Rennes nearby the chairholder, most of the PhDs and the lab facilities of the chaire cyberCNI.fr.

UMR IRISA

IRISA is today one of the largest French research laboratory (more than 850 people) in the field of computer science and information technologies.
Structured into seven scientific departments, the laboratory is a research center of excellence with scientific priorities such as bioinformatics, systems security, new software architectures, virtual reality, big data analysis and artificial intelligence.

Chair Cyber CNI: Cybersecurity for Critical Networked Infrastructures (Cyber CNI) is an industrial research chair. The Cyber CNI Chair at IMT Atlantique is devoted to research, innovation, and teaching in the field of the cybersecurity of critical infrastructures, including industrial processes, financial systems, building automation, energy networks, water treatment plants, transportation.

CHAIRE
CYBER CNI
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The chair covers the full stack from sensors and actuators and their signals over industrial control systems, distributed services at the edge or cloud, to user interfaces with collaborative Mixed Reality, and security policies.

The chair currently hosts 6+3 (three are getting recruited) PhD students, 1+3 PostDocs, 11 Professors, 1+1 engineers, and 2 internship students. The chair runs a large testbed that enables applied research together with the industry partners. The industry partners of the second funding round are Airbus, Amossys, BNP Paribas, EDF, Nokia Bell Labs, and SNCF.

UNION EUROPÉENNE
UNANIEZH EUROPA
L'Europe s'engage en Bretagne
Région Bretagne

Brittany is the cybersecurity region number 1 in France. The chair Cyber CNI is strongly embedded in the cybersecurity ecosystem through its partnerships with the Pôle d'Excellence Cyber (PEC) and the Brittany Region. The chair provides a unique environment for cybersecurity research with lots of development possibilities. For more info : https://cybercni.fr

PÔLE D'EXCELLENCE CYBER

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