



## RECRUITMENT OF ASSOCIATE/FULL PROFESSORS 2020 SESSION

Grenoble INP, Engineering Institute of the Univ. Grenoble Alpes, labeled Initiative of Excellence, is a public institution offering engineering courses with solid basic scientific content, a high technological specialization in connection with strong societal challenges related to digital, industrial, environmental and energy transitions. and a major internationalization of its courses. Grenoble INP employs more than 1,200 people (associate and full professors, lecturers, administrative and technical staff) and has 5,500 students in its 6 engineering schools (Ense3, Ensimag, Esisar, GI, Pagora, Phelma) and the Prépa des INP. From 2020, Polytech Grenoble and Grenoble IAE join Grenoble INP and considerably expand its training offer. Grenoble INP is recognized in national rankings as one of the leaders in engineering with international visibility. It is member of international engineering networks as well as the European university UNITE!.

Grenoble INP is a mother institution of more than 30 research laboratories, some of them international, and platforms where state-of-the-art research is carried out to develop knowledge, promote it to our industrial partners and transfer it to students. Grenoble INP is thus at the heart of the technological challenges of the future: Energy and materials; Digital sciences; Micro nanotechnology; Future industry and eco-efficient production in which international rankings recognize it as a leading player.

### POSITION DESCRIPTION

**Short profile:** Safety and security of computing systems.

**Category:** MCF (Associate Professor)

**Job number:** 27 MCF 0170

**Field of expertise:** Computer science

**Section 1:** 27

**Section 2:**

**Recruitment date:** 01/09/2019

**Location :** Valence

Restricted regime area (ZRR): YES NO  
(French governmental protection of scientific and technological research program)

**Key words:** safety, security, cybersecurity, software, system, machine learning

## TEACHING

**School:** Esisar

**School website:** <http://esisar.grenoble-inp.fr/>

**Contact persons:** [Oum-El-Kheir.Aktouf@grenoble-inp.fr](mailto:Oum-El-Kheir.Aktouf@grenoble-inp.fr)

Grenoble INP – Esisar trains engineers in Embedded Systems and IT technologies, with a cutting-edge curriculum spanning Electronics, Computer Sciences/IT, Control and Networks.

The school has put a huge focus on trust - safety and security – of systems, with the creation of the Industrial Excellence Chair TRUST, the organization of the CSAW international competition, the SecNumEdu certification of the IT track, the setting up of dedicated platforms (Numeric Lab and Sacco platforms).

Two specializations are offered by Esisar:

- Embedded Systems: electronics, computer sciences and control (called in French : “filière EIS”)
- Information Technology & Security (IT&S): computer sciences, networks and security (called in French : “filière IR&C”)

### Teaching profile:

The hired Associate Professor will be part of the IT teaching team of Grenoble INP – Esisar. His (her) main areas of teaching will be safety, security and cybersecurity with main applications at the software and the system level.

Skills of particular interest also include machine learning to support the evolution of the IT track and computer engineering teaching in general at Esisar, especially by taking part in the creation of new teaching tracks related to safe, secure and smart complex systems.

The recruited colleague must be able to contribute in basic teachings such as algorithmic, software programming and operating system or more specific ones, such as system administration.

## RESEARCH

**Research laboratory:** LCIS (EA 3747 Grenoble-INP and UGA)

**CTSyS team (Safety and security of embedded and pervasive systems)**

**Website:** <http://lcis.grenoble-inp.fr/>

**Contacts:** [Vincent.Berouille@grenoble-inp.fr](mailto:Vincent.Berouille@grenoble-inp.fr)

The LCIS laboratory gathers researchers whose expertises are in the areas of computer engineering, electronics and automation with main applications on embedded and communicating systems. The addressed topics are related to safety and security of embedded and pervasive systems, modeling, analysis and supervising of open complex systems and communicating wireless radio systems.

The conducted research mainly concerns interconnected software/hardware systems immersed in a physical environment. The laboratory develops new methods, models, and tools in various fields of application: Internet of Things, cyberphysical systems, natural or artificial connected environments, RFID, *etc.*

The LCIS laboratory is associated with the IDEX UGA project as part of the PIA 2 Future Investment Plan.

### Research profile:

The recruited Associated Professor will be part of the CTSYS (Safety and Security of Embedded and Pervasive Systems) team at the LCIS laboratory.

The activities of the LCIS laboratory are performed within a rich environment including in particular the TRUST Chair (Industrial Chair "Trust in Systems"), the Grenoble Alps Cybersecurity Institute (Cyber@Alps) and the Institute of Artificial Intelligence (MIAI).

The CTSYS team addresses the issues of safety and security of embedded and distributed systems. Particular attention is devoted to the interaction between hardware and software. From hardware to software, the group's main areas of research are: hardware security of integrated systems, software verification and testing, embedded systems' safety, safety and security of interconnected objects, safety and security of distributed and pervasive

applications.

The main applications are: embedded and/or critical applications (aeronautics, medical applications, mobile applications...), IoT and Smart-Systems (smart homes, smart grids ...).

The recruited Associate Professor will be able to join one or more recently initiated projects, particularly those dedicated to safety and security of complex distributed systems.

The excellence of the applicants' research activities must be certified by recent publications in high quality international journals or conferences in their field.

## **PARTICULARITIES AND CONSTRAINTS**

Administrative activities linked to the functions of associate/full professor, responsibility of teaching unit or department.

## **HOW TO APPLY**

**Online application must be done on the website Galaxie from february the 25th 2020, 10 am (GMT+1) to april the 09th 2020, 16 pm (GMT+1). Postal applications won't be accepted.**

**The interview will include simulation/situational exercises. The interview will be held in French; a part of it could be held in English. Further information will be provided with the letter of convocation.**