



RECRUITMENT OF ASSOCIATE 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 : (150 caractères max) - Management and supervision of energy flows

A first objective is to develop teaching at ENSE3 devoted to digital technologies (supervision, control, industrial networks, computing or cybersecurity) for different applications: building monitoring, system management (industrial, energy, supervision), real-time technologies. A strong involvement is planned both in the first year of the school and in specialised curriculum or in one of the international masters. A participation is expected in the evolution and the development of new courses, experimental or numerical devoted courses, jointly with ENSE3 Fablab or several ENSE3 platforms.

The research carried out at G-SCOP laboratory will revisit the systems for monitoring and supervising energy systems using AI techniques, enabling different types of human actors to make better use of the systems. The person recruited will have skills in system control and supervision as well as in machine learning. A knowledge of the application field is highly desirable as well as an interest in experimental developments.

Category : MCF (Associate Professor)

Job number : 61 MCF 0359

Field of expertise :

Section 1 :61

Section 2 :

Recruitment date : 01/09/2020

Location : Grenoble

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

Key words : control, supervision, energy systems, energy fluxes, e-learning, sensor networks

TEACHING

School: Grenoble-INP - ENSE3

School website : <http://ense3.grenoble-inp.fr/>

Contact persons : Delphine.Riu@ense3.grenoble-inp.fr

The energy, water and environment concerns which are the core of the learning courses developed in Grenoble INP - ENSE3 are undergoing a profound transformation with the development of digital technologies, the associated changes in the industrial applications and uses. Companies in the hereabove mentioned sectors are now looking for engineers with strong skills in digital technologies, in addition to the traditional skills associated with business, in order to meet new challenges related to smart grids, monitoring and control of critical infrastructures and plants (energy production systems, grids, etc.), etc.

Faced with these profound transformations, Ense3 wishes to strengthen the culture and skills of its students on digital technologies, in order to give them, as future engineers, the ability of integrating them into systems design and operation activities. The teaching component of this position therefore meets the objectives of developing teaching on digital technologies in several of Grenoble INP - ENSE3's international curriculum and masters.

Teaching profile :

ENSE3 is recruiting an Assistant Professor (CNU Section: #61) to provide and develop courses on digital technologies, in particular in supervision, industrial networks, industrial computing and cybersecurity. The fields of application concerned may be building monitoring, industrial and energy system management, real-time and communicating supervision systems, embedded and autonomous systems. He or she will thus be required to invest oneself in several areas of the school (first, second and third years, international masters courses).

He will participate in the evolution and development of new courses, new activities on experimental and numerical developments, in conjunction with several unique platforms: PICORE, MHI, GICS, Robotic Arena, or in conjunction with the ENSE3 Fablab.

A personal investment will be requested in courses strongly devoted to teaching innovation (problem-based learning tutoring, creativity seminar, innovation, etc.) as well as a participation in the school's transverse courses with, for instance, the supervision of student projects related to research or industry.

Applicants with a particular sensitivity and openmindedness to industrial partnerships will be particularly appreciated. A strong investment is also expected in the development of links between ENSE3 and its network of industrial partners. In addition, and given the increasing effort to make courses international at ENSE3, the ability to teach in English and a significant international experience will be key assets.

RESEARCH

Research laboratory: GSCOP (UMR 5272 Grenoble-INP, UGA et CNRS)

Web site : <http://http://www.g-scop.grenoble-inp.fr/>

Contacts : francois.villeneuve@grenoble-inp.fr, gulgun.alpan@grenoble-inp.fr

The G-SCOP laboratory aims to develop research and propose innovative solutions to manage and supervise energy systems.

Advances in the technical efficiency of systems have led to energy systems that are highly sensitive to use.

To remedy this problem, it is necessary to develop research revisiting supervision systems based on techniques derived from artificial intelligence, enabling the various types of human actors to better exploit energy systems (housing, residential & tertiary buildings, districts, territories, etc.).

Interactivity and learning will be considered as solutions to better involve human actors in order to address new issues of energy flexibility, individual and collective self-consumption, and coordination between actors.

The candidate must have skills in system control and supervision as well as machine learning. A knowledge of the application domain is highly desirable.

An interest in in-situ experiments is desired (deployment of sensor networks, data collection, processing and analysis...).

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

Please consider teaching and research profiles.

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.