FACULTY RECRUITMENT PROFILE
Assistant Professor
(Structures, Properties, and Modelling of Solids Laboratory / SPMS and Physics Departement)

Title: Assistant Professor

Position: Assistant Professor in Physics at CentraleSupélec, Paris-Saclay Campus / Structures, Properties, and Modelling of Solids Laboratory (SPMS) UMR CNRS (8580), « CDI de droit public ».

CNU Section: 28

Domain / Job profile:
The research activity is in functional materials engineering: experimental modelling and simulation. The teaching activity will take place within the Physics Department of CentraleSupélec.

Keywords: (physics, functional materials, simulation, ab initio)

CentraleSupélec is a public scientific, cultural and professional institution (EPSCP in French) under the authority of the Ministry of Higher Education and Scientific Research and the Ministry of the Economy, Industry and Digital Technology. Its main missions are: the training of high-level scientific general engineers, research in engineering and systems sciences, and executive education.

The Physics department at CentraleSupélec whose educational scope covers the fields of Physics and Quantum Engineering for the 3-year CentraleSupélec Engineering Program. The department also contributes to the Bachelor of Global Engineering program.

The Structures, Properties, and Modelling of Solids (SPMS) Laboratory is a joint CNRS-CentraleSupélec unit. The SPMS laboratory conducts research in materials science on innovating functional materials (ferroic materials, ionic conductors, laser-induced crystallization), combining strong experimental expertise (structural and properties) and simulation (in particular ab initio and molecular dynamics).

Academic profile:
The Assistant Professor (AP) will teach in the Physics Department of CentraleSupélec in the three years of the engineering program and other curricula such as the Bachelor's, Specialized Engineering, Master of Science or Master's degrees.

The AP will be mainly involved in the first and second-year courses in quantum physics, wave physics, solid-state physics, and statistical physics. The AP may propose elective courses related to engineering applications and challenges. The ability to teach a wide range of topics will be appreciated. The AP will have the opportunity to contribute to the courses of the third-year concentration "Quantum Engineering," in particular to "Smart Materials" or "Numerical Simulations" courses. The AP will also supervise projects and may participate in the engineering challenge weeks in the first and second year in the "Physics and Nanotechnologies" major.

As some of these courses are taught in English, the ability to teach in English is expected.

Research profile:
The candidate will join the SPMS Laboratory, whose research activities include materials science on innovative functional materials (ferroic materials, ionic conductors, laser-induced crystallization), combining strong experimental expertise (structural and properties) and simulation (especially in DFT
Candidate profile:

- The candidate must hold a Ph.D. in the field of Physics or Materials Science.
- The candidate must be author or co-author of publications in A-ranked journals and conferences (the publication requirement will depend on the curriculum vitae and the number of years of experience).
- Previous collaborative experience with industrial partners would be appreciated.
- A taste for teamwork and the ambition to develop high-level international research is expected.
- The candidate is expected to engage in the supervision of research work in line with the themes of the laboratory.
- The candidate must demonstrate an ability to transmit, a curiosity about teaching methods, ease in human relations, and an ability to listen and reformulate.

Recruitment interview:

For the candidates selected for the audition, the audition will take place in three stages:
- A presentation of the candidate’s background and integration project;
- An illustration of a 5-minute lesson, given in English, on a problem, whose subject is identical for all candidates, will be specified on the invitation letter to the audition;
- A discussion with the members of the recruiting committee.

The duration of the three parts of the audition will be specified in the invitation letter.

Candidatures:

File in pdf format, including:
- A cover letter
- A detailed CV (teaching experience, research, mobility, publications, etc.)
- An integration project (5 to 10 pages)
- A copy of the identity card or passport
- A copy of the doctoral degree
- And any documents that attest previous experience

must be sent by email only to the contact below before December 8, 2023 midnight (Paris time) at the latest:

Human resources department: drh.pole-enseignant@centralesupelec.fr

Scientific contacts:

Hichem Dammak, Director of SPMS Laboratory and Physics Department:
  hichem.dammak@centralesupelec.fr

Pierre-Eymeric Janolin, head of the Major « Physics and Nanotechnologies »: pierre-eymeric.janolin@centralesupelec.fr