Grenoble INP - UGA is a renowned public institution of higher education and research, and a major player in the Grenoble ecosystem. It is the engineering and management institute of Grenoble Alpes University, and plays a leading role in the scientific and industrial community.

Researcher in Electrical Energy

<table>
<thead>
<tr>
<th>Job ad reference</th>
<th>2023-RESEARCHELECTENG-G2ELAB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research field</td>
<td>Electrical Energy. Electromagnetic and mechanical-electrical conversion</td>
</tr>
<tr>
<td>Host laboratory</td>
<td>G2Elab (UMR 5269 Grenoble-INP, UGA and CNRS) / Website : <a href="https://g2elab.grenoble-inp.fr">https://g2elab.grenoble-inp.fr</a></td>
</tr>
<tr>
<td>Requested profile</td>
<td>First stage researcher (R1) /</td>
</tr>
<tr>
<td>Location</td>
<td>Grenoble, France</td>
</tr>
<tr>
<td>Date of recruitment / contract term</td>
<td>01/02/2024 (9 months)</td>
</tr>
<tr>
<td>Contacts</td>
<td><a href="mailto:alain.sylvestre@g2elab.grenoble-inp.fr">alain.sylvestre@g2elab.grenoble-inp.fr</a></td>
</tr>
</tbody>
</table>

Grenoble INP - UGA is a member of international engineering and management education and research networks. It is widely recognized in national and international rankings.

Institute of Engineering and Management of Grenoble Alpes University

Grenoble INP - UGA is a leading public institution accredited with the French label “Initiative d’excellence”. It offers innovative engineering and management programs, with an increasing internationalization of its course offers. The courses are grounded in sound scientific knowledge and linked to digital, industrial, organizational, environmental and energy transitions. The Engineering and Management Institute of Grenoble Alpes brings together more than 1300 staff members (teacher-researchers, lecturers, administrative and technical staff) and 8300 students, located on 8 sites (Grenoble INP - Ense3, Grenoble INP - Ensimag, Grenoble INP - Esisar, Grenoble INP - Génie industriel GI, Grenoble INP - Pagora, Grenoble INP - Phelma, Polytech Grenoble, Grenoble IAE and the INP Prepa). Grenoble INP is also a highly-ranked institution of higher education and research, leading the way in the fields of engineering and management on an international scale. It is a member of a large number of international academic and research networks. It is part of the European University UNITE!.

As part of Grenoble Alpes University, Grenoble INP has associated guardianship of 39 national and international research laboratories and of technological platforms. The research conducted there benefits both its socio-economic partners and its students. Grenoble INP is at the heart of the following scientific fields: physics, energy, mechanics and materials; digital; micronanoelectronics, embedded systems; industry of the future, production systems, environment; management and business sciences.

Grenoble INP - UGA is an equal opportunity employer committed to sustainability. Grenoble INP-UGA celebrates diversity and equity and is committed to creating an inclusive environment for all employees. All qualified applications will be considered without discrimination of any kind.
Research

The Grenoble Electrical Engineering Laboratory (G2Elab) covers the whole spectrum of electrical engineering applications, from materials to systems, from actuators to processes, from micro-systems to large-scale energy networks... Research work will be carried out within the MDE (Dielectric Materials and Electrostatics) team, which is developing energy conversion generators in particular.

Job description :

The CEIMPED (Converters of Impulsive Energy for Sustainable Mobility and Electricity Production) project involves the development and integration of an innovative transducer (generator, sensor) for converting mechanical energy into electrical energy within road and rail infrastructures, within the framework of intelligent mobility and electricity production, currently limited by the investment cost and maintenance of devices and equipment. The objectives of the project are (i) to improve an existing innovative architecture, (ii) to adapt it to different scales using non-critical materials, and (iii) to integrate complementary technologies in order to develop quasi-industrial solutions. The project is expected to result in the prototyping and realization of transducers at different scales and levels of complexity in embedded intelligence, and to generate value through publications and possibly a patent.

Expected skills in the design and manufacture of mechanical – electrical and electro-magnetic energy conversion generators.

Specific requirements or conditions

Proficiency in English and French is required.

Specifics of the position

The CEIMPED project is an Inter-Carnot project between Grenoble and Lyon. The total duration of the project is 18 months, and the 9-month contract at G2Elab will be followed by a 9-month contract at the LaMCoS laboratory in Lyon. The research work will be carried out in these 2 laboratories, with the allocation of time depending on the needs of the study.

Position assigned to a restricted area: YES

(Device for the protection of the scientific and technical potential of the nation, conditioning the appointment of the researcher to the authorization of the Defense Security Officer).

How to apply

Applications must be sent to: alain.sylvestre@g2elab.grenoble-inp.fr

Application deadline : 05/01/2024