**Publish date**:

**Deadline for application**:

**Ref. 24/043**

**Project**: CoPRESS

**Area**: Energy Efficiency in Systems, Buildings and Communities Area

**Group**: Power systems

**Group leader**: José Luis Domínguez-García

**PI**: José Luis Domínguez-García

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## 'R1 – Position in the field of artificial intelligence for grid integration of distributed energy sources'

**Description**:

The Power Systems group is seeking a qualified candidate in the field of grid integration of renewable energy sources. The selected candidate will have the opportunity to work on cutting edge technologies intersecting energy and artificial intelligence (AI) fields, in the framework of the international project "Cooperative Platform for Renewable Energy Storage Systems" (CoPRESS). The CoPRESS project aims at empowering electricity consumers to become actors with the freedom to choose how their distributed energy resources interact with the grid. This will be achieved through the development of realistic power grid models and AI tools for diagnostics and forecasting.

As part of the Power Systems group, the applicant will work in a dynamic, international, and interdisciplinary team of highly qualified researchers.

Following an initial training period, the applicant will carry out the following tasks:

- Conduct research in the field of grid integration of renewable energy sources.
- Implement power grid models and carry out technical analyses.
- Develop AI-based tools for energy storage diagnosis and prognosis.
- Write technical reports and research papers in impactful scientific journals.
- Collaborate with international entities to conduct joint project activities.
- Present research results to the consortium and to international conferences.

**Qualifications and experience required**:

Essential:

- Candidates should have a master's degree (or equivalent experience) in Electrical Engineering, Energy Engineering, Industrial Engineering, Computer Science or a related discipline.
- Knowledge of energy systems, power system analysis and related fields.
- Good Matlab programming skills.

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Preferred:

- Basic Python programming skills.
- Experience with commercial power system analysis tools (i.e. DigSilent PowerFactory, PSS-E, PowerWorld, etc…).
- Basic knowledge of machine learning, data science and/or optimization.
- Knowledge of energy storage systems diagnosis.
- Previous experience in international environments.

Personal skills:

- Curiosity and willingness to learn.
- Proven teamworking skills (university projects, associations, previous professional experience etc…).
- Self-motivation and accountability.
- Ability to work independently.
- Initiative in Research and Innovation.
- Time management and organisational skills.

Language:

- Fluency in English is required.
- Fluency in Spanish and Catalan are preferred.

**Required documents**:

Applicants must submit the following documents by email to irecjobs@irec.cat; jldominguez@irec.cat and apepiciello@irec.cat

**Reference**:

- Curriculum Vitae, specifying the completed degree and any relevant professional experience.
- Motivation letter.

**Offer of job position**:

We offer a R1 position for 30 months on the frame of CoPRESS international project.

Salaries will be paid in accordance with the IREC's salary policy, depending on the candidate's qualification and professional experience.

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