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**Ref: 23/045**

**Project: NETBUILD**

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

**Group: Energy Systems Analytics Group**

**Group leader: Dr. Josh Eichman**

## **R2 Senior position in the field of flexibility energy management from smart buildings and electric vehicles**

### **Description:**

The Energy Systems Analytics group is actively searching for a highly motivated candidate (R2) specializing in the field of energy flexibility from smart buildings and electric vehicles. As part of the Energy Systems Analytics group, the applicant will work closely with a diverse team of highly-qualified researchers.

### **Responsibilities:**

- Lead and conduct research pertaining to modeling and optimization of aggregation services.
- Devise innovative aggregation services, encompassing services for Vehicle-to-Grid (V2G) systems and renewable energy generation.
- Design aggregation strategies to maximize the local renewable generation within neighborhoods, considering potential signals from the distribution grid.
- Assess building flexibility by combining forecasted flexibility from various building devices.
- Develop an energy management system that allows V2G / V2B functionalities considering both aggregation signals and market interaction using software tools such as Python, GAMS and R.
- Collaborate with other researchers and stakeholders to develop and validate models and algorithms.
- Write impactful research papers and present research findings at conferences and workshops.
- Collaborate with national and international stakeholders to prepare competitive project proposals.

### **Qualifications and experience required:**

#### **Required:**

- Candidates should have a background in Operations Research, Computer Science, Electrical Engineering or a related discipline.
- Experience of optimization, modelling and statistical analysis.

- Experience with energy systems and related fields Knowledge of programming, simulation and optimization software capabilities.
- Strong communication skills and ability to work in cross-functional teams.
- Self-motivated and able to work independently.

***Desired:***

- Experience in renewables, electric vehicle or energy storage integration.
- Experience in energy flexibility, local markets and optimization.
- Experience in competitive project proposal preparation.
- Experience in industrial or competitive projects leadership.
- Experience in supervising students.

***Language required:***

Fluent in Spanish and English.

***Personal Skills:***

- Team Worker
- Initiative in Research and Innovation.
- Flexibility
- Results-oriented
- Analytical and synthesis capabilities

***Salary:***

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

Send applications by email directly to [irecjobs@irec.cat](mailto:irecjobs@irec.cat) including:

- Ref. 23/045 in the subject of the e-mail
- A motivation letter with reasons for applying, qualifications and the intentions and visions for the position
- Curriculum vitae with personal, academic and professional data