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**Ref. 15/2022**

**Code:**

**Project: SYN.IKIA**

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

**Area leader:**

**Group: Thermal Energy and Building Performance Group**

**Group leader: Dr. Jaume Salom Tormo**

## **First Stage Researcher / Project Engineer – SYN.IKIA - Energy Models Thermal Energy and Building Performance Group**

The applicant will work as a first stage research engineer in projects related to Net Zero Energy Buildings and Communities, DER (Distributed Energy Resources) integration and energy management systems in buildings. He/she will report to the Head of the Thermal Energy and Building Performance Group and to lead-Researcher of Building Performance research line.

### **Description**

The research will be embedded in the Thermal Energy and Building Performance Group which main research subject is the Integrated and Systemic approach for Zero Energy Communities, Buildings and Industries. The group's special focus is on the Mediterranean and other warm weather regions. The vision is to build an applied research group that contributes to accelerate the reduction of greenhouse gas emissions (GHG) through energy efficiency measures, production of clean energy, and integration of distributed renewable energy sources (RES).

The candidate will be involved in tasks such as energy simulation of buildings and communities, interaction of buildings with energy infrastructures and positive energy communities. Integrated in a multi-disciplinary team, the candidate is expected to run research activities as part of international projects or projects with industrial partners, as research assistant / research engineer. He/She will work on is the EU project SYN.IKIA. SYN.IKIA aims at achieving sustainable plus energy neighbourhoods with more than 100% energy savings, 90% renewable energy generation triggered, 100% GHG emission reduction, and 10% life cycle costs reduction, compared to nZEB levels. This will be achieved while ensuring high quality indoor environment and well-being. The candidate has to be used ensure deadlines as well of reporting and communication of technical / research results.

### **Requirements**

We are looking for excellent and highly motivated candidates with a MSc degree in Building Physics Science, Energy Systems and/or Computer Science. Basic knowledge in heat and mass transfer phenomena, energy in buildings is essential. Experience in computational energy systems simulation tools and programming is essential, too. Knowledge of TRNSYS and/or Python, R-Studio or other dynamic building simulation / computational tools is highly valuable. Knowledge of HVAC systems is highly desirable.



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We are looking for a methodical, excellent team-player and results-oriented candidate with good communication skills. Mastery of English on all levels will be essential. Knowledge of Spanish will be desirable.

### **We offer**

We offer the chance to become part of an exciting and consolidated team, with international recognition. We also offer a research environment comprised of highly qualified and motivated professionals. The offer is a contract linked to the project which expected ending is December 2023. Salaries will be paid in accordance with the IREC's salary policy, depending on the candidate's qualification and professional experience. Expected Category is First Stage Engineer Project – R1.6.

**Workplace.** Barcelona (IREC facilities)

### **Application**

Applicants should send a detailed CV and a letter of motivation to [irecjobs@irec.cat](mailto:irecjobs@irec.cat).

The application deadline is 21<sup>st</sup> March

Please indicate “**2022 –R1 Buildings – SYN.IKIA**” in the subject