Shaping Energy for a Sustainable Future

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First Stage Researcher / Project Engineer - 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 participate as research engineer (research assistant) in technical work of research projects in fields related with different levels of energy models (white-box models and reduced-order / grey-box models), calibration of models and integration in computational tools. Activities where he/she will be involved are dynamic simulation of buildings integrated in smart infrastructures. Properly elaboration of reporting reports and collaboration in articles for scientific publication will be also carried out.

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 desirable.

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, working for at least a 9 months period (full-time). We also offer a research environment comprised of highly qualified and motivated professionals. Salaries will be paid in accordance with the IREC's salary policy, depending on the candidate's qualification and professional experience.

Workplace. Barcelona (IREC facilities)

Application
Applicants should send a detailed CV and a letter of motivation to irecjobs@irec.cat.
The application deadline is February 29th
Please indicate "**2020 –R1 Buildings - Models**" in the subject