Publish date: May 13, 2024

Deadline for application: June 3, 2024

Ref. 24/063

Projects: syn.ikia, AMB 2024 (`Heat Watcher`)

Research field (*línia recerca oficial*): Edificis i comunitats d'energia nul.la (NZEB) i d'enrgia flexible

Area: Energy Efficiency Systems, Buildings and Communities (ECOS)

Group: Thermal Energy and Building Performance

Group leader/ PI: Jaume Salom / Joana Ortiz

'Energy and IEQ in buildings – Researcher/Project Engineer'

Description:

The Thermal Energy and Building Performance Group announces a position of a high-skilled First stage Researcher/ Project Engineer (R1-First Stage) in the field of energy efficiency in buildings and communities with knowledge and experience in energy consumption analysis, Indoor Environmental Quality (IEQ) and monitoring campaigns. The work will be embedded in the Thermal Energy and Building Performance Group which main research subject is the integrated and systemic approach towards positive energy buildings and communities. The group's vision is to investigate in solutions and strategies that accelerates the reduction of greenhouse gas emissions in the building sector through human-centred design, energy efficiency measures, integration and management of energy systems, particularly distributed renewable sources in the built environment as part of urban communities.

The candidate will participate in European and national projects within the subject of Positive Energy District, Local Energy Communities and Retrofitting of Buildings. He/She will work on the EU project SYN.IKIA (https://www.synikia.eu/), which 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 residents' well-being. In addition, he/she will participate in the 'Heat Watcher' project which aim to research thermal comfort in residential buildings through citizen science in vulnerable areas of the metropolitan area of Barcelona.

Qualifications and experience required:

Essential:

- Degree in Mechanical / Energy Engineering / Physics / Building engineering / Architecture
- Knowledge in programming languages: Python, R.
- Knowledge in data science tools.
- Basic knowledge in heat and mass transfer phenomena, energy in buildings is essential.
- Fluent English is essential.

Preferred:

- MSc in Mechanical / Energy Engineering / Physics / Building engineering / Architecture
- Knowledge of Indoor Environmental Quality assessment methods
- Knowledge on Buildings energy behaviour

- Knowledge of HVAC systems
- Experience in computational energy systems simulation tools (TRNSYS or other dynamic building simulations)

Personal skills:

- Motivated professional
- Passion for energy efficiency and sustainability in the built environment.
- Self-sufficiency and capacity to integrate in consolidated team.
- Collaborative working-approach.
- Experience as a collaborator within different skills and disciplines applied to the projects.
- Drive for excellence and result-focus, listening and analytical skills.

Required documents:

Applicants must submit the following documents by email to irecjobs@irec.cat; jsalom@irec.cat; iluque@irec.cat; jortiz@irec.cat; indicate in the subject Ref.24/063.

Reference:

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

Offer of job position:

We offer a First stage research / project engineer (R1.6 first stage) position in the frame of the Horizon 2020 EU project syn.ikia, the 'Heat Watcher' project and the 'Bruxit' Project.

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