

## **COH-4 Researcher Building Energy Modelling**

### **CONTRACT: Full Time/Specified Purpose**

The International Energy Research Centre (IERC) core research team is a multi-disciplinary, collaborative research group, who conduct specific pieces of research to meet the needs of industry and as approved by the IERC Steering Committee. The core research team report to the Head of Group who reports to the IERC Head of Energy Research.

The role of an IERC researcher is to deliver research outputs based on the translation of both industry needs and academic research ambitions such that highly structured and well defined research projects can be defined, developed and delivered. IERC researchers are expected to develop Innovation Needs Assessments (INAs) and contribute to strategic research planning activities in order to define research objectives and research output specifications.

IERC researchers are expected to participate in fully collaborative projects, particularly where special expertise can make a direct contribution and advance IERC's objectives. IERC researchers are expected to have both academic and industry experience, together with a sound understanding of the wider energy landscape beyond their area of expertise. All researchers will be expected to initiate and contribute to writing of proposals for European and other external funding streams.

This post is a full-time, specified purpose position linked to the funding opportunities of the IERC.

### **Key Duties and Responsibilities**

- Contribute to the specification and proposal development for research projects conducted by IERC core research teams
- Participate in and support the work with industry partners on a project
- To support and work within the quality assurance processes and methods defined for project development and delivery
- Develop as a thought leader and proactively generate research initiatives and ideas.
- Provide positive critical analysis for such potential innovation opportunities with a view to solution-oriented outcomes
- Participate in and contribute to grant proposal writing for EU and other funding streams
- To engage in the wider research and scholarly activities of the research group
- To interact closely, as necessary, with postgraduate research students who are studying for a Masters or a PhD and possibly have an agreed role in supporting these students in their day to day research in conjunction with an academic supervisor.
- To carry out administrative work to support the programme of research as necessary
- Participate in Education and Public Engagement activities, as required.
- Ensure all activities are compliant with the Tyndall Quality Management system.
- Ensure all activities are compliant with the required Health and Safety standards.
- To carry out any additional duties as may reasonably be required within the general scope and level of the post.

### Essential Criteria

- A PhD qualification with proven track record of publications in the fields of mechanical engineering, civil engineering, architecture or similar
- Typically, with 2 years' research experience with measurable outcomes in minimum two of the following building energy modelling areas:
  - Building thermal simulation
  - Interior daylighting models
  - Building energy system models (HVAC plant, hydronic networks, etc.)
- Demonstrable experience in programming bespoke modules for leading simulation packages (e.g. EnergyPlus, TRNSYS, Dymola, etc.)
- Demonstrated capability of self-initiative while working within a project team to achieve results
- A commitment to personal growth and development
- Excellent communication, organisation and interpersonal skills

### Desirable Criteria

- Detailed practical experience and reasonable working knowledge of at least one of the following:
  - Building information modelling
  - Simplified building energy models
- Experience of working collaboratively with industry
- Experience with competitive research programs (including Horizon 2020 and MSCA)
- Evidence of leading research projects and project teams to successful completion
- Highly self-motivated
- It is strongly desirable that candidates are able to demonstrate an ability to develop bespoke models for programs outside their usual knowledge as may become necessary during the course of research projects.

Appointment may be made on the IUA Scale for Post-Doctoral Researchers €37,873-€45,041 pa. Salary placement on appointment will be in accordance with public sector pay policy.

Informal enquiries can be made in confidence to Carlos Ochoa at [carlos.ochoa@ierc.ie](mailto:carlos.ochoa@ierc.ie)

Further information on the Department is available at [www.ierc.ie](http://www.ierc.ie)

### Application Instructions

**Step 1 - Click [here](#) to download and complete the application form and indicate Job Reference COH-04.**

**Step 2 - Return the completed application form, together with your CV and motivation letter to [careers@tyndall.ie](mailto:careers@tyndall.ie).**

Handwritten forms will not be accepted.

Please note that Garda vetting and/or an international police clearance check may form part of the selection process.

The University, at its discretion, may undertake to make an additional appointment(s) from this competition following the conclusion of the process.

At this time, Tyndall National Institute does not require the assistance of recruitment agencies.

Tyndall National Institute at University College, Cork is an Equal Opportunities Employer