



EPSRC and SFI Centre for Doctoral Training in  
**Energy Resilience and the Built Environment**

## PHD STUDENTSHIPS

Applications now being  
invited at MaREI



### WHAT IS ERBE?

The 'Energy Resilience in the Built Environment' (ERBE) CDT represents an exciting partnership between **MaREI (Ireland)**, **University College London (UK)**, and the **University of Loughborough (UK)** that is funded through the SFI-EPSRC 'Centres for Doctoral Training' (CDT) Programme.

The CDT promotes excellence in research through the training of cohorts of doctoral students and the fostering of collaboration between UK and ROI based researchers. ERBE will train innovative leaders with the necessary skills to transform the relationships between people, buildings and the energy system, providing sustainable, affordable, and healthy places to live and work.



### WHAT WILL I BE STUDYING?

You will participate in a four-year integrated programme of energy demand research in a whole energy system context. You will be registered in one of MaREI's seven institutional partners and will be co-supervised by a UK-based investigator.

There are **core modules** which have been co-created with partners from across industry, government, and academia, and will cover topics such as energy policy and society, energy data and analysis, building modelling, physics of the built environment, and socio-technical theory and methods.

Key to the **cohort experience** of this PhD programme is the participation in an annual Block Week in Loughborough University; along with a Summer School, Colloquium and a student-led conference, along with participation in events and training specific to your own research.

The ERBE CDT PhD Programme will provide the knowledge, research and transferable skills to enable outstanding graduates from physics and engineering to social sciences to pursue research in one of three themes:

1

#### **Flexibility and resilience:**

The interaction between buildings, both domestic and non-domestic, and the whole energy system, through new generation, storage, and energy efficiency technology, enabled by smart control systems and new business models.

2

#### **Technology and system performance:**

Demand reduction and decarbonisation of the built environment and its utilisation through design, construction methods, technological innovation, cyber-physical monitoring and control systems and regulation.

3

#### **Comfort, health and well-being:**

Building, energy, and ICT systems that create productive and efficient work and operational environments and affordable, clean, safe homes.



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### WHO SHOULD APPLY?

Key to the success of the ERBE CDT student cohort is the mix of academic and professional backgrounds of its students. **Students from all backgrounds with an interest in the themes are encouraged to apply** including: Social Science, Architecture, Data Analytics, Physics, Materials Science; Computer Science; Mathematics and Engineering.

Applications are welcomed from both EU & Non-EU students. For non-EU students, please be advised that there are English language requirements in place for each institution which must be adhered to.



### HOW DO I APPLY?



If you are interested, please submit a CV and Cover Letter stating your suitability to the ERBE CDT Programme to **ERBE@ucc.ie** by 5.00 p.m. Friday 20th December 2019 (GMT). Interviews will subsequently be held during January/February 2020 with the studentship commencing in September 2020. For more information, please click [here](#).

For any informal queries, please email **ERBE@ucc.ie**



MaREI

MaREI is a research, development and innovation centre, supported by Science Foundation Ireland, that operates across the energy, climate and marine sectors. Our activities are motivated by the need to address three global challenges, namely the energy transition, climate action, and blue growth, resulting in the development of a dynamic research ecosystem that is responsive to the needs of academia, industry, government and society.

As a driver of collaboration, the Centre comprises over 200 world-class researchers who are collaborating with stakeholders across more than 36 countries, and who have a proven track record in academic excellence, consistently publishing in high-impact journals and participating in major international initiatives.

Contributing to ERBE will be internationally recognised experts from across our institutional partners at University College Cork (UCC), National University of Ireland Galway (NUIG), University of Limerick (UL), Maynooth University (MU), University College Dublin (UCD), Cork Institute of Technology (CIT), Technological University Dublin (TU Dublin), the Economic and Social Research Institute, Dundalk Institute of Technology (DKIT), Trinity College Dublin (TCD), Dublin Institute for Advanced Studies (DIAS), and Tyndall National Institute.