



ERBE Centre for Doctoral Training

energy resilience in the built environment



Fully Funded PhDs

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-EP SRC 'Centres for Doctoral Training' (CDT) Programme, which aims to promote 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 buildings and the energy system, providing sustainable, affordable, and healthy places to live and work. In doing so, a whole system multi-disciplinary approach will be implemented to draw on the skills of each partner, involving the training of 68 students across five separate intakes.

What will I be studying?

MaREI will train 18 PhD students in Ireland across five separate intakes, who 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, but will be co-supervised by a UK-based investigator, and will undertake an immersive six-month placement comprising taught modules at either University College London or the University of Loughborough during the first year of your studies. These modules 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, while you will also attain skills in areas such as researcher ethics, technical writing, and project management. You will subsequently undertake your PhD under 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/or affordable, clean, safe homes

Who Should Apply?

Applications are invited from motivated graduates with a background in one of the following areas: Engineering; Materials Science; Data Analytics; Computer Science; Physics; Social Science; Mathematics; or Architecture. Applicants with other building, manufacturing and energy-related qualifications or extensive industry experience may also apply.

How do I Apply?

If you are interested, please submit a CV and Cover Letter to ERBE@ucc.ie by the first round deadline of 5pm on 14th April 2019 (GMT). Interviews will subsequently be held during May 2019 (date TBC), with the first intake due to commence in September 2019. For more information, please visit the [ERBE](#) and [MaREI](#) websites.



MaREI is a research, development and innovation centre, supported by Science Foundation Ireland, that operates across the energy 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), and the Economic and Social Research Institute.

