



IESD

Research Degrees

- Join an internationally excellent research team
- Study full-time or part-time to MPhil or PhD level
- Study in the IESD or at a collaborating institution in the UK or overseas
- Applied or theoretical topics in technology, engineering or social sciences
- Excellent research environment and supervision

Minimum registration periods

MPhil

One year full-time
Two year part-time

MPhil/PhD

Three years full-time
Four years part-time

PhD

Two years full-time
Three years part-time

Location

The Institute of Energy and Sustainable Development occupies the award-winning Queens Building, a groundbreaking low-energy, naturally ventilated building on De Montfort University's City Campus. The campus is situated in the historic area of Castle Park, close to Leicester city centre. It is a compact campus with a wide range of facilities such as a library, bookshop and sports facilities. The Students' Union provides a full range of student services such as welfare and accommodation.

Programme

The research degree is aimed at both recent graduates wanting to specialise in energy and sustainability, and professionals wishing to extend their knowledge and expertise. It has an interdisciplinary approach, reflecting the

need for the integration of skills and knowledge in the field of sustainable development.

Research degrees offer an opportunity for UK and international students to investigate in depth novel topics to help generate new knowledge and ideas. The degrees may be pursued by full-time or part-time study in the Institute, drawing on its computing, library and laboratory resources, and making use of the day-to-day supervision available from Research Fellows and senior staff.

Alternatively, study may be pursued elsewhere, such as at home or place of work, but regular contact with the Institute's supervision team is essential.

You can propose your own research topic, which is refined through discussions with the supervision team. Initial registration is usually for an MPhil/PhD, which enables students and supervisors to decide on the target degree after about nine months of study. If your studies are likely to lead to a new contribution to our body of knowledge you may seek transfer to the PhD route. Alternatively, those undertaking well researched, in-depth studies – but who will not meet the criteria for a PhD – may opt for the MPhil route. A direct PhD route is open if you already hold a relevant postgraduate Master's degree or higher, or have substantial subject-specific knowledge.

Facilities

The IESD provides a modern, self-contained research environment in which you will have your own workspace and equipment, and will be co-located with leading researchers from around the world with diverse ethnic backgrounds. It is rapidly expanding and is a vibrant, stimulating workplace. Facilities for computer modelling are first class. Extensive and state-of-the-art equipment is available within the IESD for large-scale field monitoring work. The City of Leicester has been a living laboratory for research into urban scale sustainability and development.

Research topics

Pursuit of a sustainable future requires cross-disciplinary collaboration between applied scientists, engineers, economists, sociologists, designers, policy makers and planners. Recent research topics reflect this diversity; some are theoretical and 'blue sky' whilst others are near-market and product oriented:

- Investigation of infotainment energy use in UK homes and its minimisation
- State-of-the-art models for human thermal comfort in the built environment



- Hybrid ground source heat pumps that integrate with solar thermal devices for enhanced carbon performances
- Quantifying visual discomfort in the daylight workplace
- The place of gardens and green spaces in sustainable cities
- The effectiveness of communication in encouraging sustainable behaviour.

Often studies are associated with externally funded research projects and, occasionally, you may contribute to consultancy work. Collaboration with other universities and research institutes is encouraged.

IESD students have worked with:

- The University of Stuttgart
- The Universities of Lausanne
- The City University of Hong Kong
- The University of Seville
- The Universitat Autònoma de Barcelona
- Cambridge University
- University College London
- Rutherford Appleton Laboratory
- Energie-Cités
- Local councils in the East Midlands

Supervision

Each student will have a First Supervisor, normally a senior researcher in the IESD, and up to three Second Supervisors – these are selected from within the University or elsewhere (such as a part-time student's place of work). Additionally, expert advisors are nominated to provide support in niche topics pertinent to the research. One member of this supervision team acts as the mentor, providing day-to-day guidance. Formal meetings are convened at least monthly (full-time) or bi-monthly (part-time). Students pursuing research degrees outside the UK are normally expected to work closely with their supervisors for a minimum of six weeks each year.

You are expected to work in a self-directed manner, so the supervision team guides rather than drives the research. You will formulate your own aims and objectives and are expected to publish intermediate findings in either journals or at conferences.

Examination

Examination for all research degrees is by a thesis in English plus a viva. Equivalent alternatives to the thesis can be negotiated.



Entry requirements

you must hold the equivalent of an upper second-class degree or better to pursue an MPhil or MPhil/PhD. Applicants already holding a relevant postgraduate masters degree or higher, eg, by graduating from one of our MSc courses, or who have substantial relevant subject-specific experiences, may pursue the direct PhD route.

Career opportunities

IESD graduates have excellent career prospects. Recent graduates have been recruited to research institutes, professional engineering consultancies, renewable energy product manufacturers, computer modelling and software development firms, as well as to the IESD itself.

For further information contact:

Professor Li Shao
 T: +44 (0)116 257 7975/7979
 F: +44 (0)116 257 7977
 E: lshao@dmu.ac.uk

IESD

Institute of Energy and Sustainable Development

Climate change, and the impact it will have on our lives, is one of the greatest problems facing mankind. The UK is at the forefront of global efforts to reduce the emission of greenhouse gases, and strategies for adapting to the global warming that will inevitably occur are being developed. The Institute of Energy and Sustainable Development (IESD) plays an important role in this by working to reduce energy consumption in buildings; to develop and apply renewable energy systems; to understand the social, economic and technical implications of climate change; and to educate current and future generations of the need to develop more sustainably.

The IESD's research work is conducted by a team of professors, readers, lecturers and research fellows – supported by higher degree students – who are internationally respected for the quality of their work. Their disciplines range from mathematics and physics, through engineering, to economics, sociology and psychology. This diverse range of skills enables staff to lead multi-disciplinary, multi-university projects and address inter-linked environmental, economic and social research problems.

Their expertise enables IESD staff to:

- Provide strategic advice to central government departments and to regional and local policy makers and planners
- Act as environmental design consultants to architects and engineers working on architecturally significant and award-winning buildings both in the UK and overseas
- Offer advice to numerous small businesses and local authorities who are seeking to adopt more sustainable business practices.

The IESD provides a high quality environment for doctoral study and its Master's programmes cater for a wide range of graduates and professionals wishing to increase their knowledge of environmental issues in an interdisciplinary context or to work more effectively as building design professionals.

Institute of Energy and Sustainable Development

De Montfort University
Queens Building
The Gateway
Leicester LE1 9BH, UK

T: +44 (0)116 257 7979

E: iesd@dmu.ac.uk

W: iesd.dmu.ac.uk



All DMU publications are available in alternative media where appropriate. This includes via email (.pdf), CD-ROM and DVD-ROM.

You may request a large font size, audio or Braille version of any publication and where possible, this will be supplied for you. It may not be possible to supply all publications in full, due to size. On these occasions, you will be asked to request specific sections only.

DMU will make every effort to find an appropriate alternative format for all requests. For further information on how we can help, please contact the Enquiry Centre on 08459 45 46 47, dmu.ac.uk/enquiry or text phone +44 (0)116 257 7908.