**Programme title and code:**

**DT9773 MSc in Building Performance (Energy Efficiency in Design)**

**Programme context:**

NZEB or Nearly Zero Energy Building is the energy performance standard required under the European Union Energy Performance in Buildings Directive (EPBD). This Directive requires that all new buildings owned and occupied by public bodies must meet the NZEB standard from the end of 2018 onwards. It also requires that ALL new buildings must meet the NZEB standard from the end of 2020 onwards. The Directive also provides for the deep renovation of existing buildings to the NZEB standard beyond 2020. Achieving the NZEB standard will be a major challenge for designers and builders alike. It will require a culture change at all levels in the building industry, from how we procure, design, construct, use and maintain a building over its life cycle.

This will require industry education and upskilling on an unprecedented scale within the disciplines of the Architecture, Engineering and Construction (AEC) sector across the EU. To meet this need the DIT School of Architecture has developed a suite of new online upskilling programmes including the MSc in Building Performance (Energy Efficiency in Design) which includes related postgraduate certificate and postgraduate diploma elements.

**Programme description:**

The MSc in Building Performance (Energy Efficiency in Design) is an applied technical design and research programme focussed on the development of technical skills within a professional services and labour market employment context. The programme is offered in blended online mode and is delivered over five 15-week semesters. Each semester comprises 300 learning hours, or a commitment of 20 hours per week.

The focus of the PGCert element is on the up-skilling and refocusing of building design professionals in a range of conceptual analysis tools, centred on energy and thermal performance calculation methodologies, computer-based heat transfer modelling and analysis skills, and the application and development of these in a series of projects centred on Nearly Zero Energy Building performance targets.

The focus of the PGDip element is on the further development and application of new and renovation-focussed technical design skills, and the application of these in more complex NZEB new and renovation design projects.

The focus of the final stage of the MSc programme is the development of a research dissertation exploring a topic relevant to energy efficiency design and technology.
Programme outcomes:

Graduates of the MSc in Building Performance (Energy Efficiency in Design) programme will be qualified to provide specialist professional technical services at the forefront of the energy efficiency design and NZEB deep renovation field of learning.

On completion of the MSc in Building Performance (Energy Efficiency in Design) programme the learner will be able to use NZEB tools to:

- Engage in research in the area of building performance and energy efficiency design and deep renovation technology.
- Provide specialist professional technical services at the forefront of the building performance and energy efficiency design and deep renovation field of learning.
- Provide leadership and engage creatively in a collaborative multi-disciplinary research and design environment.
- Apply relevant principles of building physics and mathematical calculation in the development of technically robust energy efficient design and deep renovation research and design propositions within their discipline.
- Make critical judgements based on scientific principles within a changing and ill-defined technological context, with an ability to analyse and measure novel and emerging technological propositions against building performance and energy efficiency design data and metrics.
- Record and present project case studies and design proposals using appropriate professional and academic report writing conventions.

Features:

- This is a distance learning programme, delivered using cloud-based online technologies, with a limited number of college-based face to face workshops.
- All students are trained in the use of online technologies and tools as part of their induction to the programme.
- All lectures are pre-recorded.
- Feedback webinars take place each week and are recorded to enable repeat viewing.
- The programme is open to professionally qualified architects, engineers, building surveyors and architectural technologists.

Professional recognition:

Graduates who are RIAI members may choose to apply to the RIAI for Environmental Accreditation and will be considered by the RIAI on an individual basis.

Programme fee:
MSc €7,500
(€2500+€3000+€2000)
(€240 discount under Sustainability Skillnet 2017)

Applications:
Online application form on http://dit.ie/architecture/

Location:
Workshops in DIT Bolton Street.
All other contact is online.

Commencement:
Start date will be September each year

Programme duration:
The programme is delivered over five 15-week semesters

Further information:
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