

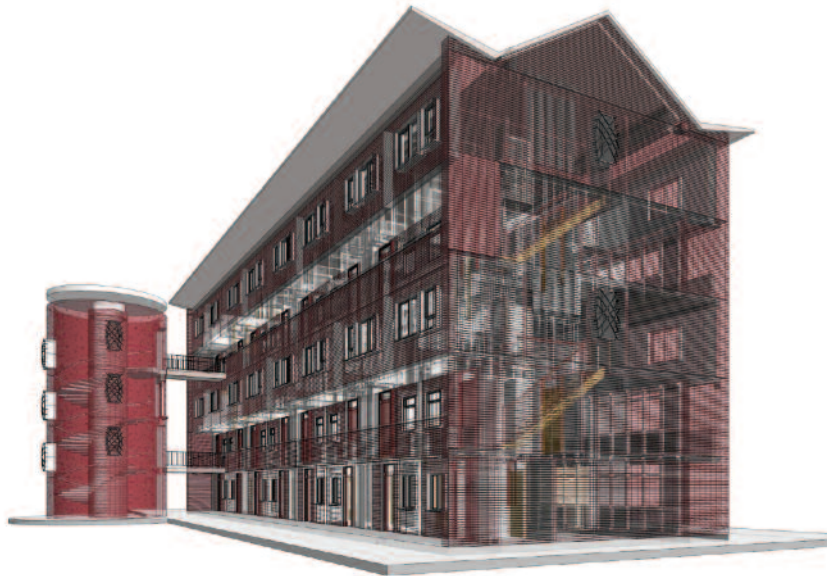
Programme title and code:

DT9774 CPD Diploma in NZEB Design Tools

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 CPD Diploma in NZEB Design Tools which forms part of and sits within an overarching MSc in Building Performance (Energy Efficiency in Design) programme.



Programme description:

The CPD Diploma in NZEB Design Tools is an applied technical design 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 one 15 week semester. A semester comprises 300 learning hours, or a commitment of 20 hours per week.

The focus of the CPD Diploma in NZEB Design Tools is on the up-skilling and refocusing of building design professionals in a range of core NZEB technical design tools centred on the Dwelling Energy Assessment Procedure (DEAP) as a modelling and compliance tool to achieve Nearly Zero Energy Building performance targets.

Professional recognition:

Graduates of the CPD Diploma in NZEB Design Tools 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 outcomes:

On completion of the CPD Diploma in NZEB Design Tools programme the learner will be able to:

- Advise on the EU policy and legislative framework appropriate to an NZEB dwelling design and retrofit.
- Appraise building fabric and building services installations, and consider the performance impact of retrofit materials and installations interventions in NZEB dwelling design and renovation.
- Appraise and select from a range of calculation theories and methodologies used in energy modelling to achieve compliance with the NZEB performance standard in building fabric design.
- Assess the relative merits of fabric interventions, services installations and renewable technologies in an NZEB residential project based on the principles of life cycle cost analysis and appraise the financial parameters impacting on cost optimality.
- Determine appropriate utilisation of the DEAP energy analysis tool and methodology to analyse the energy performance of a typical Irish dwelling based on conventional constructions, services and systems, and integrating Alternative and Renewable Energy Systems drawing from a critical understanding and knowledge of the tool and method.
- Utilise the DEAP energy analysis tool to make informed design decisions in the development of a particular design proposal toward achieving statutory Building Regulation compliance and the NZEB energy performance standards within a particular case study building and in consideration of wider, sometimes complex design criteria and challenges
- Apply a critical knowledge and understanding of the DEAP energy assessment tool within the complex reality of case specific practice and broader design drivers and challenges.
- Establish a strategy for the development of a residential development addressing NZEB requirements and integrating appropriate low energy building and construction technologies at a professional level.

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 CPD Diploma sits with the MSc in Building Performance (Energy Efficiency in Design) which includes nested postgraduate certificate and diploma elements.
- The programme is open to professionally qualified architects, engineers, building surveyors and architectural technologists.

Programme fee:

€1500
(€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 and
January subject to minimum
applicant numbers

Programme duration:

The programme is delivered over
one 15-week semester

Further information:

joseph.little@dit.ie