



MSc in Software Solutions Architecture

BLENDED • PART-TIME • NFQ LEVEL 9

Unleash your unstoppable potential, with Technology Ireland ICT Skillnet

Technology is ever-changing. No matter what stage you are at in business or your career, there is always more to learn.

At Technology Ireland ICT Skillnet, our vision is to create **progressive futures**, helping organisations to **transform at scale** and individuals to **develop a competitive edge**, through the **power of learning**.

For almost two decades, Ireland's leading technology companies have trusted us to build the critical skills needed to thrive in a rapidly evolving market.

Let us connect you to the infinite possibilities shaping the world of tomorrow.



Supercharged skills

Each of our programmes are designed, developed, and validated by specialists from academia and industry, working together, with a constant focus on:

1 **Creating opportunity and momentum** for experienced professionals and those starting out or transitioning career.

2 Delivering learning solutions in a way that **balances work and study**.

3 Providing practical skills, along with the theoretical, allowing businesses to **navigate new frontiers in the world of tech**.



5,000+

companies supported



12,000+

learners upskilled



30+

professional programmes



Online, blended, and
in-company training supports



Government-subsidised
programme fees, up to 100%

MSc in Software Solutions Architecture

Build the foundations of tomorrow's tech solutions

Almost all industries are grappling with complex challenges such as scalability demands, the integration of emerging technologies like AI and IoT, and cybersecurity threats. To navigate this digital maze, software architects with the right skillset are essential.



The best software architects are more than just technical experts. As well as possessing well rounded skills, which include an understanding of business and technology, they require the expertise to communicate and influence multiple stakeholders, ensuring their project not only works, but aligns with the broader goals of the organisation. They bridge the gap between innovation and practical implementation, ensuring systems are resilient, efficient, and future-proofed.

This 2-year part-time Level 9 Masters programme is designed to give software architects and engineers the skills, confidence, and technical capabilities needed to not just advance, but to make a significant impact in their field. You will work alongside like-minded peers and industry experts, engaging in meaningful discourse and collaborative projects.

Drive innovation, shape strategies, and guide organisations toward a better digital future, with our award-winning MSc in Software Solutions Architecture.



At a glance

Start Date

January 2025

Award

Level 9 NFQ (90 ECTS)

Delivery

Blended: Online and on-campus

Duration

2 years part-time

Classes are 2x evenings a week from 6.30–9.00pm

Fees

Skillnet subsidised: €2,950 per year

Non-subsidised: €4,325 per year

Programme Partner

Technological University Dublin
(Tallaght Campus)



Programme schedule

The programme will start with a 2-day workshop that will involve all participants being physically present. This is seen as important to facilitate networking, experience sharing and group learning.

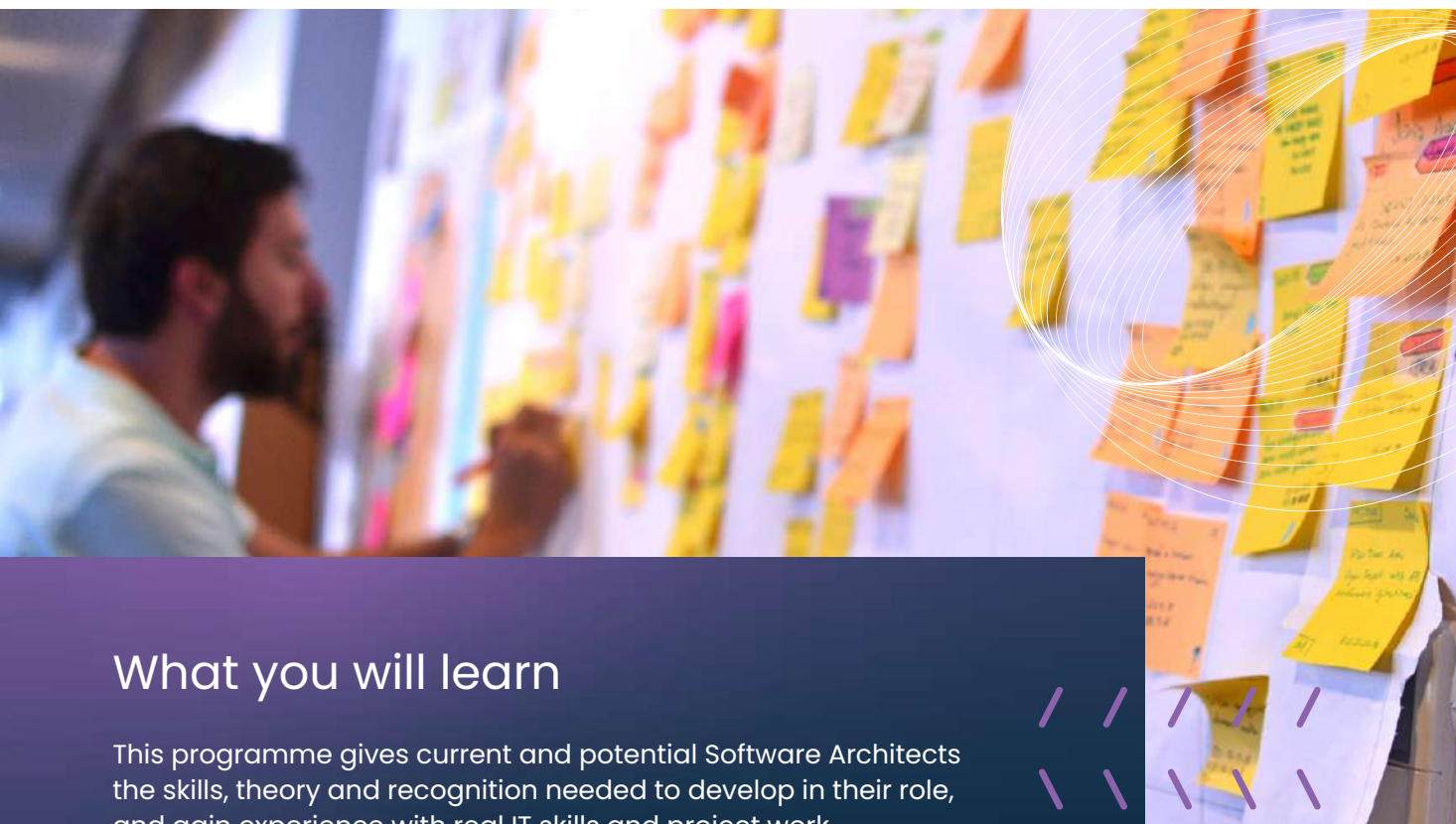
Lectures are held online two evenings per week, from 6.30 to 9.00pm. The lectures are primarily on Tuesdays and Thursdays. Occasionally, classes may alternate between Wednesday and Thursday to facilitate guest speakers. Lectures will be streamed live and will be available for download and offline viewing.

Some optional additional on-campus events may also be held. There are 2x examinations which are generally held on campus over the period of the programme.

Who is the programme for

This programme has been uniquely designed to cater for:

- ▶ Current software architects who want to gain a recognised qualification to help them develop in their role and career.
- ▶ Graduates in related fields looking to progress into the emerging field of software architecture to increase their employment potential.



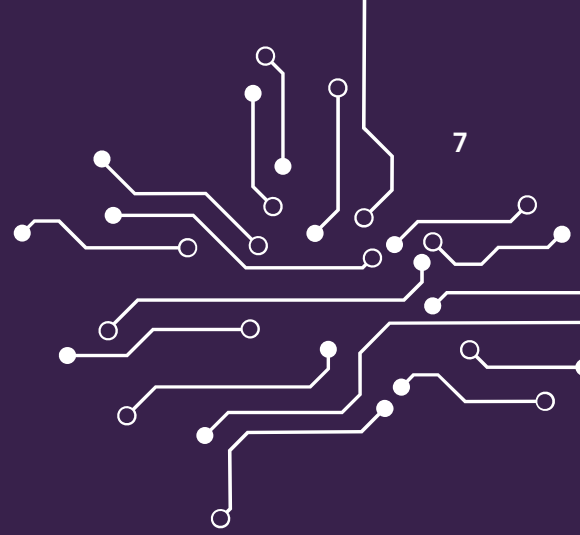
What you will learn

This programme gives current and potential Software Architects the skills, theory and recognition needed to develop in their role, and gain experience with real IT skills and project work.

- ▶ Benefit from an industry-aligned understanding of the IT architect as a role, improving your creativity and performance when approaching stakeholders about software projects.
- ▶ Enhance your future contribution to the industry with a broad knowledge of technology, the IT environment, architecture in practice and more.
- ▶ Study the field through a combination of classroom sessions, online learning, bootcamps and role plays, to illuminate software architecture best practice. Course dissertations are also completed in-company, adding a real-world, practical dimension to the course.

Case study workshops

The course utilises role plays to illuminate architecture best-practice by posing specific design problems derived from case studies and conducting group-based workshops to address them. The examination of spectacular architecture successes and failures and the sharing of experiences through presentation and case study by the participants themselves is very much part of the process.



Semester and module breakdown

The programme has seven modules spread over Semesters 1, 2 and 3 and a major Research Project in Semester 4.

Semester 1-3: Modules

- IT Architecture Design
- IT Environment
- Business Technology Strategy
- Human Skills for the IT Architect
- IT Architecture Quality Attributes
- IT Architecture in Practice
- Research Methods

Semester 4: Research Project / Dissertation

The Research Project component, to be conducted in-company and addressing a relevant real-world problem or issue, will be formulated as a research question, then executed as a project, with the outcome written up as a Dissertation of circa 15,000 words.

The Research Project will need to demonstrate a full engagement with the programme content and with relevant academic sources so that the outcome is a valid piece of research appropriate to a Masters (NFQ Level 9) qualification. TU Dublin staff and in-company members will guide and supervise the project. The Research Methods module in Semester 3 is designed to prepare and develop the participant's ability to complete the Research Project.

Outcomes for you

This course will formally certify your status as a highly skilled, high-performing software architect, with an internationally recognised qualification.

Graduates of this programme will develop the required knowledge, skills and attributes in human dynamics, business, technology and strategy, IT Architecture, IT Quality Attributes and Environments, to support them in growing their roles as an IT/Software Architect. Graduates are also prepared to carry out applied research in topics at the cutting edge of software architecture.

This course will equip both established and aspiring software architects with:

Informed, industry-aligned understanding of their role.

A set of frameworks, approaches and tools for executing software architecture tasks.

Knowledge base of current best software architectural practice and experience.

The ability to communicate effectively with a range of stakeholders.

The capacity to understand technology initiatives from a broad business perspective.

Understanding of how to make strategic technical decisions.

Internationally certified and validated academic recognition.

Assessment



There will be an equal emphasis in assessment between achieving grades in continuous assessments/ assignments and examinations.

Award



Participants will receive a parchment for the Master of Science in Software Solutions Architecture upon successful completion of the programme.

Cross-Certification

With the collaborative involvement of the International Association of Software Architects (IASA) in the delivery of the programme, the prospect of allowing participants to qualify for some or all of the IASA Certification in Software Architecture (CITA) certifications at Foundation (CITA/F), Associate (CITA/A) and Professional (CITA/P) levels is being actively explored.

Winner of the Best Professional Development Award at the Tech Excellence Awards



Most current software architects have grown into their role with no formal certification or academic qualification in the practice of software architecture. We believe this course can be a major contributor to keeping Irish IT Architects at the forefront of global computing.

Barry Feeney, Head of School, School of Enterprise Computing & Digital Transformation, TU Dublin (Tallaght Campus)

Academic eligibility

Prospective participants must either (a) be serving in the role of software architect, or (b) be aspiring to move into such a role. All participants must have substantial experience of IT software and systems development and implementation in team and technical leading roles.

They must also have current competence to interact with development teams at a deep technical (i.e. specification and coding) level.

Applicants should have a primary degree (Level 8) in Computer Science or a cognate/science discipline or a degree with a high level of mathematics.

For candidates who do not meet this minimum entry requirement, the college operates a Recognition of Prior Learning (RPL) scheme whereby applicants may be considered based on relevant work or other experiences.

For applicants whose first language is not English, please note the English language entry requirements.

Funding eligibility

The fees for this programme are part-funded by Technology Ireland ICT Skillnet. The reduced programme fees are €2,950 per year.

Applicants must be working in a private or commercial semi-state organisation registered in the Republic of Ireland (Business, Consultant, Freelancer) to avail of the grant-aided fees. As a government-funded training network, we can only support those meeting these criteria.

Applicants who do not meet our funding criteria may in some cases be able to apply and pay the full fee of €4,325 (per year) if there are available places.

Please speak with our programme team to learn more about the availability of funding.

info@ictskillnet.ie

Programme delivered in partnership with:



TU Dublin has five locations across Dublin, including major campuses in Grangegorman, Blanchardstown and Tallaght, and locations on Aungier Street and Bolton Street. While TU Dublin is already a leader in STEM disciplines, the University also supports the largest cohort of students of business, media, culinary arts, and the creative and performing arts. They are passionate about life-long learning, and as the largest provider of part-time education, they make an important contribution to the economic life of Ireland, enabling capacity building for the future.



Ready to develop your career in Software Architecture?

Our team is ready to answer any questions you might have regarding this programme. Send an email to info@ictskillnet.ie or use the enquiry form on our programme page and one of our programme leads will be delighted to assist you.

Successful applicants will be required to complete registration details both for Technology Ireland ICT Skillnet and for TU Dublin (Tallaght Campus). Programme participants will become registered students of TU Dublin.

Start your learning journey today
with Technology Ireland ICT Skillnet

Learn More

Embrace the future with confidence,
with Technology Ireland ICT Skillnet
as your training partner.



Programme pillars

Our wide range of programme channels allows you to access training in the latest technologies driving business development.



Industry approved

With the support of our Industry Steering Group, made up of some of Ireland's most progressive companies, you can be assured that our programmes will provide you with the most relevant and cutting-edge skills that industry demands.



Certification you can trust

Through our strategic partnerships with some of Ireland's most influential higher education institutions, we offer a range of certificate, diploma, and masters programmes, with awards accredited on the National Framework of Qualifications.



Join 12,000+ learners who have transformed their careers with us. **Explore our range of courses >**

www.ictskillnet.ie



UNLEASH YOUR
UNSTOPPABLE POTENTIAL



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Technology Ireland ICT Skillnet is co-funded by Skillnet Ireland and network companies. Skillnet Ireland is funded from the National Training Fund and the European Union through the Department of Further and Higher Education, Research, Innovation and Science.



Rialtas na hÉireann
Government of Ireland



Co-funded by
the European Union