



TUS



Higher Diploma in Construction Data Capture and Analytics

A path to a rewarding career

Today's construction industry is highly interdependent and diverse. The complex processes now required to deliver large infrastructure projects requires an understanding of a range of interdisciplinary concepts for its design, construction, operation and maintenance - key to this is the collection and interpretation of relevant construction survey data. This programme is designed to arm learners with the knowledge and imbue them with the practical skills for digital construction techniques, survey analysis and management of construction surveying.

What will I study?

Over the course of your study at TUS Midlands Mid West you will study the following modules:

SEMESTER 1

3D Laser Scan Technology

This module will introduce the student to 3D reality capture techniques using Laser Scanning Technology (3D point cloud, scan data for verification of the as built structure, 2D and 3D models).

Digital Surveying Techniques

This module covers the techniques of digital data generation. The collection and processing of accurate data in very short time frames has huge benefits to all stakeholders within the construction process, allowing information to be gathered for design whilst using the same technology to monitor and streamline the construction process.

SEMESTER 2

Post-Survey Data Processing

Upon completion of this module the student will have a complete understanding of how to use and manipulate the Point Cloud to obtain results of a very high accuracy e.g. to create a completed 3D model from the point cloud or create detailed line drawings from sections and elevations

Digital Construction Management

This module promotes an understanding of Digital Construction concepts and processes that are part of a project lifecycle. The student will understand how a model can be used to carry out a number of functions by a number of teams and different roles within the industry (Design to Construction, Clash Detection to 4D Planning, and Health & Safety).

SEMESTER 2 and 3

Yearlong - Applied Project

Students will undertake a realistic, industry relevant research project commencing Semester 2 which will involve the use of a literature review, research methods, and analysing data. In selecting dissertation titles, students will be encouraged to consider topics which will provide them with the opportunity to integrate the course content into their working environment to the fullest possible extent.

Industry Links & Opportunities:

This course was developed by a team of practicing engineers, construction managers & academics from Ireland and the UK. The course will be delivered by this team, ensuring a highly relevant and future proofed course.

The particular skills have been identified as being in very short supply and there are many opportunities in Ireland and elsewhere for skills in data capture and ability in post-processing of this data, as well as the ability to provide accurate site control using modern methods and equipment.

Qualification Options:

Higher Diploma in Construction Data Capture and Analytics (60 credits)

Certificate on Data Capture and Analytics (40 credits)

3D Laser Scan Technology (10 credits); Digital Surveying Techniques (10 credits); Post Survey Data Processing (10 credits); Digital Construction Data (10 credits)

Minimum Entry Requirements:

Applications will be considered from level 8 honours graduates in engineering or cognate disciplines. Graduates who hold Level 7 qualifications in related disciplines and relevant industrial experience will be considered for places on a case-by-case basis.

Contact Us:

Alan Duffy +353 090 644 2531 Email

eng@ait.ie