## Past, Present and Future of the Land (geo) Surveying Education at Technological University Dublin

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## **SUMMARY**

The article will look at the evolution of education in land (geo) surveying at Technological University Dublin (TU Dublin) and what plans are for the future to ensure the number of graduates needed by the surveying industry in Ireland is met.

The first Diploma Course in Land Surveying started in 1967. Since then, TU Dublin programs aimed to provide students with the necessary skills and abilities for a successful career in the field of geospatial technology, both within Ireland and internationally.

All Geospatial Programmes are part of the Faculty of Engineering and Built Environment (FEBE), School of Surveying and Construction Innovation (SSCI). SSCI run a four years, full-time Bachelor of Science (Honours) in Geospatial Surveying undergraduate programme. In addition, in partnership with the surveying industry, a five years part-time "Earn-As-You-Learn" undergraduate programme was developed, leading to a similar Bachelor of Science (Honours) in Geospatial Surveying.

Both undergraduate programmes are designed to give students a solid foundation in land surveying, mapping, and Geographic Information Systems (GIS), so they can analyse and interpret data and make informed decisions.

A significant focus of the current programmes is the practical training provided to students. They have the opportunity to work with up-to-date surveying equipment (robotic total stations, GNSS and laser scanners) and have access to a wide range of processing software. This hands-on approach to learning helps students develop the skills and knowledge needed to become proficient in using geospatial

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technology.

At the Post-Graduate level, SSCI is running full-time and part-time Master of Science in GIS programmes. They are designed to provide graduates with the knowledge and skills needed for a successful career in the field of geospatial technology. The programmes are focused on using GIS and related technologies for collecting, analysing, and managing geospatial data. The modules included in the programmes cover a wide range of topics such as GIS, remote sensing, cartography, geospatial data management, and spatial statistics. Experienced lecturers teach these modules, providing students with hands-on training and real-world experience.

SSCI also run a 10 ECTS credits part-time CPD programme in GIS. This programme aims at individuals working in GIS or related industries and requires upskilling in this area.

The article will look at TU Dublin's plans of creating an apprenticeship in geospatial surveying and a revival of the Postgraduate (conversion) Master programme in Geospatial Engineering.

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