BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS
FACULTY OF CIVIL ENGINEERING
CONSTRUCTION INFORMATION TECHNOLOGY ENGINEERING MSC PROGRAM
SPECIALISATION IN CONSTRUCTION INFORMATION TECHNOLOGY ENGINEERING

The MSc in Construction Information Technology Engineering program has one specialization. Its mission is to train engineers capable of understanding and developing construction workflows and the digital technologies and processes that support them.

The construction industry is a less digitalised area and therefore has a huge potential for development. Engineers can tackle the multidisciplinary problems associated with complex construction activities almost exclusively with IT tools and solutions. This requires gaining a complex competence group of knowledge and its synthesised application at skill level.

The 3-semester course can be divided into distinct modules per semester. In the first semester, students will study foundation courses; advanced programming, database systems, BIM basics, and already this semester the projectwork will be introduced, where they will have to solve construction problems in a teamwork using IT tools. The second semester is more practice-oriented, the main focus is on the application of programming, database and BIM skills, and teamwork plays an even greater role. In the third semester, the main task of the students is to master the soft skills needed in industry (e.g. reasoning and negotiation techniques), in addition to the thesis.

Culturally, the course also offers more than traditional engineering master's programmes. The language of the courses is English, and foreign and Hungarian students work in mixed groups. The curriculum is necessarily international: its modules aim to impart knowledge and competences in line with the latest international trends and developments.

Those who complete the training will be familiar with the typical work processes in the construction trades, understand the terminology used by the trades' experts and have an overview of the tools they use. Their modelling and analytical skills enable them to realistically assess the cost and time requirements of the work processes of teams working in their own trades. Programming competences enable them to assess the scale and resource requirements of development tasks.

Holders of a Master's degree in Construction Information Technology Engineering can take on middle and senior management roles in national and international construction companies involved in the design, construction and facility management of built assets. They provide effective support for complex, specific problem-solving requiring development, for which no other course currently offers such a focused set of competences, making the degree a niche.

Chair of Specialisation
Dr. Tamas Lovas
associate professor
Department of Photogrammetry and Geoinformatics