

Digitization and Information Support for Efficient and Sustainable Management of Construction Project

prof. Ing. Peter Mésároš, PhD.

rektor TUKE

Letná 1/9 | 042 00 Košice-Sever

rektor@tuke.sk

Abstract: The lecture explores the transformative impact of digital technologies on the construction industry. It delves into how digitization facilitates the integration of advanced information systems, such as Building Information Modeling (BIM) and digital twins, to enhance project planning, execution, and monitoring. The session will highlight the role of digital technologies in optimizing resource utilization, reducing waste, and minimizing environmental impact, thereby promoting sustainability in construction practices. These tools can significantly streamline the planning process by automating selection of material and technology, and thus ensuring compliance with project requirements. However, the lecture will also address the challenges posed by AI, such as data accuracy, the complexity of integrating AI with existing systems. Furthermore, the lecture will discuss the challenges and opportunities associated with implementing digital solutions, emphasizing the need for a strategic approach to harnessing these technologies for the effective and sustainable management of construction projects.



Short Bio:

Prof. Ing. Peter Mésároš, PhD. successfully completed the inauguration procedure in the field of civil engineering in 2022. From 2015 to 2019, he was the Vice-Dean for Development and Foreign Affairs of the Faculty of Civil Engineering of the Technical University of Košice. From 2019 to 2023, he was the Dean of the Faculty of Civil Engineering of the Technical University of Košice and the statutory representative of the Institute of Expertise in Civil Engineering at the University. He is a member of several scientific boards of faculties and universities, a member of international editorial boards of scientific journals. He has successfully led and managed several national and international projects. His publishing activity is also extensive. He is a member of the Presidium of the Association of Construction Entrepreneurs of Slovakia, a member of the SOC-1 Commission for Vocational Education within the European Construction Industry Federation.

As a Rector of Technical University of Košice, he helps increase the prestige, quality and recognition of the university at home and abroad. The awarded proposal is for his extraordinary and significant contribution to developing international cooperation with the Óbuda University and the Technical University of Košice.