MTA-BME MOMENTUM - NEW GENERATION OF STEEL BRIDGES RESEARCH GROUP

BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS (BME)

About the Research Group »»

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HORIZON-CL5-2024-D4-02-02: Robotics and other automated solutions for construction, renovation and maintenance in a sustainable built environment (Built4People Partnership) || Partner seeks Consortium

We can contribute to the following tasks as described in the Topic:

1) Investigate the use of automated technologies for surveying, inspection and monitoring of the site.
2) Investigate the use of automated support to augment workers' capability and safety (e.g., lift robots, exoskeletons, automated construction site monitoring, use of augmented and virtual reality).

What we can bring to the consortium:

- Our department has outstanding experience in measurements and monitoring systems, cooperation with Hungarian industrial partners in installing monitoring systems could be an additional contribution to the project.

- Multidisciplinary team of civil and mechanical engineers with the potential involvement of industrial partners such as distributor of welding robots (potential stakeholders in the project), while robotic welding and 3D printing of concrete components is also possible at the university.

- Research and developments in the field of Augmented Reality (AR) at the Faculty of Electrical Engineering and Informatics at our university.

- High-quality infrastructure: structural laboratory for performing large-scale measurements and material tests, ANSYS APDL and Workbench simulation environments, qualified project management staff at university level

- Strong collaboration with the main participants of the Hungarian bridge engineering industry, experience in joint projects

- Collaboration with European standardization bodies (CEN/TC 250/SC3/ WG5, WG13 and WG22 committees) and European Convention for Constructional Steelwork (ECCS).

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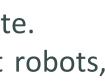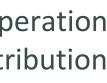BME Competence Map

HORIZON EUROPE

BMEFIEK

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BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS

With its regular high-ranking positions (between 200 and 800) BME is among the top universities (2-6%) globally. At the university's 8 faculties and 76 departments, there are 1,200 lecturers teaching 5,000 subjects and 10,000 courses each semester. In the H2020 Framework Programme BME has ranked #1 among the Hungarian institutions with 67 funded projects. The University is an active member of the European Engineering Learning Innovation and Science Alliance (EELISA) European University, the CESAER association of universities of science and technology and the European University Association.

> BME webpage   > BME in H2020 and Horizon Europe