

May 23rd-24th, 2024

Thomas-Ellwein-Saal, Building M1

Helmut-Schmidt University /
University of the Federal Armed Forces Hamburg (Germany)



HELMUT SCHMIDT
UNIVERSITÄT
Universität der Bundeswehr Hamburg

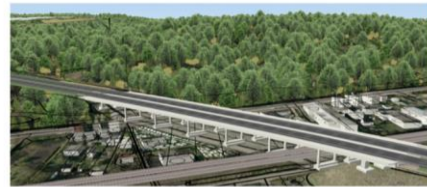
PhD Meeting "Digital Bridges"

The biannual meeting "Digital Bridges" pursues its mission to advance research in the field of digital monitoring of structural bridges.

The meeting is attended by doctoral students from the University of the Federal Armed Forces in Hamburg and Munich, as well as industrial partners of ongoing research projects.

Previous events have strengthened knowledge and technology transfer, and linked research more closely to practice.

This year's meeting is supported by the European Safety and Reliability Association (ESRA) and provides a platform for intense discussions and exchange of results with experts in the field of safety and reliability of systems and structures.



Structural Concrete, DOI: (10.1002/suco.202400119)



May 23rd, 2024

09:00 **Prof. Dr.-Ing. Sylvia Keßler** – Welcome speech

09:15 **Prof. Marcin Hinz** – Professor at Munich University of Applied Sciences (Germany) – **AI-based assessment of surface quality in a manufacturing process**

10:30 **Coffee break**

10:45 **Dr. tech. Matteo Broggi** – Deputy of the Institute for Risk and Reliability at the Leibniz Universität Hannover (Germany) – **Recent advancements in the reliability analysis of large network systems**

12:00 **Lunch**

13:00 **Arto Niemi, PhD** – Senior researcher at the DLR Institute for the Protection of Maritime Infrastructures (Bremerhaven, Germany) – **Infrastructure resilience modeling – Prospects of digital twins**

14:15 **Coffee break**

14:30 **Alice Cicirello, PhD** – Assistant Professor in Applied Mechanics in the Engineering Department of the University of Cambridge (UK), and Lecturer and Fellow in Engineering at Churchill College – **A physics-enhanced machine learning approach to monitoring of engineering structures**

15:45 **Coffee break**

16:00 **Prof. Elizabeth Cross** – Professor in the Dynamics Research Group at the University of Sheffield (UK) – **Development of grey-box models for assessing the health of structures in operation** (online)

May 24th, 2024

09:00 **Prof. Edoardo Patelli** – Professor and Head of the Centre for Intelligent Infrastructure at the Department of Civil and Environmental Engineering of the University of Strathclyde (UK) – **Digital technologies for structural health monitoring and system identification**

10:15 **Coffee break**

10:30 **Saboor Karimi, M.Sc. & Wolfgang Ries, Dipl.Phys.** – Developing a data platform for digital methods

11:00 **Johannes Wimmer, M.Sc.** – SHM approaches with distributed optical sensors

11:30 **Philip Franz, M.Sc.** – A physics-informed SHM approach for Munich Bridge data

12:00 **Coffee break**

12:15 **Bishr Maradni, M.Sc.** – Hybrid digital twinning of reinforced concrete based on mixed dimensional modelling

12:45 **Martin Köhncke, M. Sc.** – Condition Integration in BIM for existing bridges

13:15 **Lunch and Feedback**

14:00 **End of the PhD Meeting**