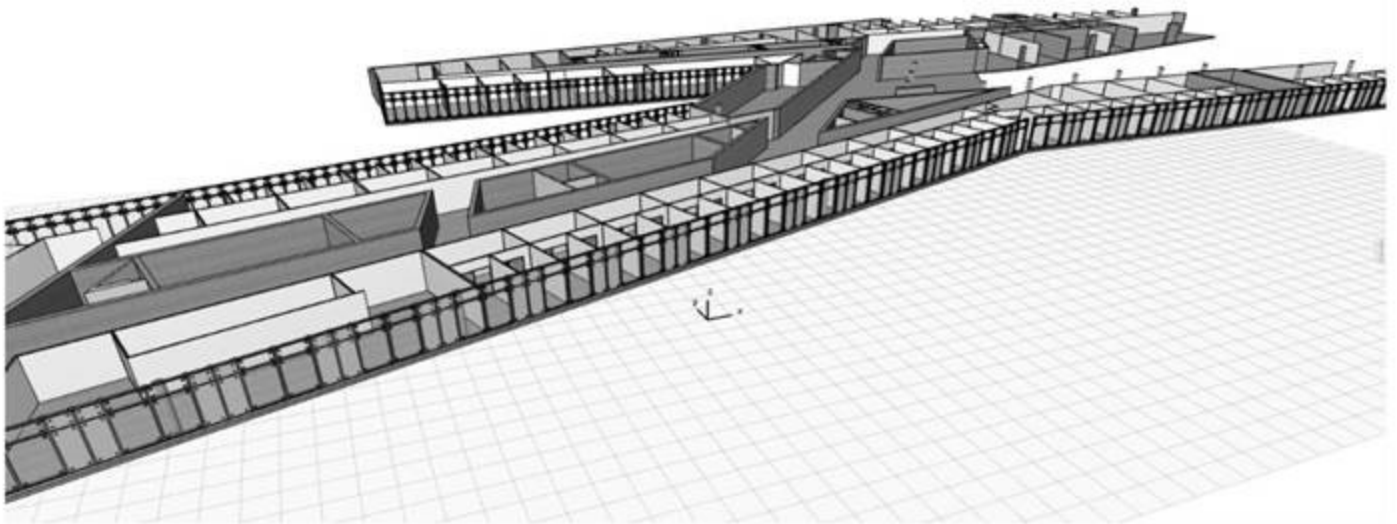


LECTURE

ARCHITECTURE LECTURE SERIES
2021, UNIVERSITY OF CYPRUS

HARALD STERNBERG

The use of modern metrology tools in the context of
an interdisciplinary university of building and urban planning



**WEDNESDAY, 17 MARCH 2021,
19.00 - 20.00**

ARCHITECTURE DEPARTMENT
ZOOM LINK:

<https://ucy.zoom.us/j/95781376660?pwd=UmZMaG9OSXgvNVpmM0tCNkRxenF5UT09>

The use of modern metrology tools in the context of an interdisciplinary university of building and urban planning

Part I _ HCU as an interdisciplinary university for the concerns of the built environment.
HafenCity University Hamburg - University of Architecture and Metropolitan Development (HCU) is a university thematically focused on the built environment. HCU unites under one roof all aspects of building in design and drafting, engineering and natural sciences, as well as humanities and social sciences. HCU is consistently organized on an interdisciplinary basis. One of the university's special qualities is that all disciplines are considered in an integrated manner in research and teaching. Reference to application, technical knowledge, multi-perspective reflections and design creativity are the characteristics of education at HCU.

Part II _The use of modern 3D measurement methods for recording and modelling buildings in BIM

In geodesy, we use laser scanning to capture areas and buildings. The models developed from this serve as the basis for Building Information Models (BIM). With the help of artificial intelligence, the automated derivation of the geometric and also the semantic elements can be accelerated.

HARALD STERNBERG



Harald Sternberg is Surveying Engineer, Professor for Hydrography and Geodesy as well as additionally Vice President for Teaching and Digitalization at the HafenCity University Hamburg. He studied and worked at the Bundeswehr University in Munich and received there his Dr.-Ing. Mobile mapping systems on different carriers (cars, ships and indoor trolleys) as well as the use of low-cost sensors for positioning, navigation and environmental data acquisition are part of his research area. He is also involved in the analysis of mass data using artificial intelligence. In the field of hydrography, he is working on autonomous underwater vehicles, automated analysis of underwater images and interpretation of backscatter data. He gives lectures, among others, in the following subjects: Determination of positions and water depths, Advanced Hydrography, Integrated Navigation and Geodesy. From the Vice president's perspective, another focus is on the advancement of interdisciplinary teaching and new teaching formats, particularly with a view to the challenges in digitization.