CIVIL AND ENVIRONMENTAL ENGINEERING DEPARTMENT SEMINAR

DR. BURCU AKINCI

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Date: Friday, October 6th, 2023
Time: 12:45pm – 2:00pm EST
Location: Bingham Bldg., Room 140
Zoom Link: Here

Context Driven AI for Built Environment

Abstract: The last decade has been truly transformational with many technological advancements, such as Internet-of-Things, Industry 4.0, Artificial Intelligence and Automation. Given the unique context of built environment, Civil and Environmental Engineers can lead in developing effective approaches that combine domain models with these technological advancements to address the world's biggest challenges, such as the ones identified in UN's Sustainability Goals, in a more holistic and transformational way. This presentation will provide specific research examples that highlight Carnegie Mellon's interdisciplinary research approaches in developing context-driven algorithms within which domain models play a significant role. It will highlight the significance of such an approach with a vision towards self-aware autonomous facilities and infrastructure systems.

Bio: Dr. Dr. Burcu Akinci is the Paul Christiano University Professor and department head of Civil & Environmental Engineering at Carnegie Mellon University. She is also a member of the National Academies of Construction, ASCE Fellow and AAAS Fellow.

Dr. Akinci's research interests include modeling and reasoning about digital twins of buildings and infrastructure systems to streamline construction and infrastructure operations.

Dr. Akinci is the recipient of the ASCE Peurifoy Award in 2023, the IAARC Tucker-Hasegawa Award in 2021, the ASCE Computing in Civil Engineering award in 2020, Professor of the year award in 2011 from the ASCE Pittsburgh section and the ASCE Walter L. Huber Civil Engineering Research Prize in 2007. She has best paper awards from the Journal of Computing in Civil Engineering in 2002, and from the Construction Research Congress, ISARC and ICCCBE in 2009, 2011 and 2014, respectively.

She co-founded and is the Chief Innovation Officer at the LeanFM Technologies, which received the 2017 Pittsburgh Business Times Innovation Award. She also serves on the National Academies Board on Infrastructure and the Constructed Environment.