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PRESENTED BY THE WATERLOO INSTITUTE
FOR SUSTAINABLE ENERGY

Friday June 15, 2018

2:00 pm – 3:00 pm

DC 1302

ACTUALIZING SMART INFRASTRUCTURE TO ENABLE DATA-DRIVEN ASSET MAINTENANCE DECISIONS

Sriram Narasimhan, Canada Research Chair, Smart Infrastructure; Associate Professor, Civil and Environmental Engineering & Mechanical and Mechatronics Engineering (cross-appointed), University of Waterloo

The use of sensors and sensory information has now become routine in infrastructure applications. This has led to a proliferation of what is being called **Smart Infrastructure**. However, the volume of such activity has not been accompanied by a commensurate increase in our understanding of the condition of structures. This talk will focus on bridging this gap, mainly related to civil and mechanical infrastructure and will present highlights of the work being carried out by prof. Narasimhan and his students at the University of Waterloo. He will focus on practical data collection challenges and the theoretical background related to diagnostics and prognostics, while motivating the link to broader asset management and maintenance planning. Finally, the speaker will introduce how the use of robotics is likely to shape the future of Smart Infrastructure.

Biography



Dr. Sriram Narasimhan is an Associate Professor in the departments of Civil and Environmental Engineering & Mechanical and Mechatronics Engineering at the University of Waterloo in Waterloo, Ontario, Canada, where he also holds the title of Canada Research Chair in Smart Infrastructure. Dr. Narasimhan's main research areas are in structural dynamics, system identification and condition assessment of structural and mechanical systems. He received his PhD in 2005 from Rice University in the area of control of base isolated structures. Subsequently, he joined the University of Waterloo in 2006 as a tenure-track Assistant Professor, where he was promoted to the rank of tenured Associate Professor in 2012. Prior to joining the University of Waterloo, Dr. Narasimhan was with the Risk Consulting Division at the American Bureau of Shipping in Houston, Texas, USA. Dr. Narasimhan is active in various international technical committees and is currently an Associate Editor for the ASCE Journal of Bridge Engineering and ASCE Journal of Structural Engineering.

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