

An overview of regional risk and resilience analysis

Speaker: Prof. Paolo Gardoni, University of Illinois at Urbana-Champaign

Time: 26th September, 2022 15:00 – 16:00 US Central time

Host: Dr. Jianjun Qin, Shanghai Jiao Tong University

Lecture outline:

Civil structures and infrastructure provide vital services that support and enable societal functions. However, they are vulnerable to several hazards. To wisely invest the limited funding, it is crucial to use advanced risk analysis tools in the decision-making process. This presentation discusses a general formulation for regional risk and resilience analysis. The presentation explains how to conduct a regional risk and resilience analysis considering multiple hazards and different infrastructure, as well as the effects of deterioration and interdependencies among infrastructure. Finally, the presentation concludes with the modeling of business interruption due to a hypothetical earthquake in the New Madrid seismic zone.

About the speaker:

Paolo Gardoni is the Alfredo H. Ang Family Professor in the Department of Civil and Environmental Engineering at the University of Illinois at Urbana-Champaign. He is also the Editor-in-Chief of the journal *Reliability Engineering and System Safety*, and the founder and former Editor-in-Chief of the journal *Sustainable and Resilient Infrastructure*. His research interests include probabilistic mechanics; reliability, risk and life cycle analysis; decision-making under uncertainty; performance assessment of deteriorating systems; modeling of natural hazards and societal impact; ethical, social and legal dimensions of risk; optimal strategies for natural hazard mitigation and disaster recovery; and engineering ethics. Prof. Gardoni is the 2021 recipient of the *Alfredo Ang Award on Risk Analysis and Management of Civil Infrastructure* from the American Society of Civil Engineers for his contributions to risk, reliability, and resilience analysis, and his leadership in these fields

<https://cee.illinois.edu/directory/profile/gardoni>



ZOOM Link:

<https://aaudk.zoom.us/j/63072788551>

Live on Bilibili:

<https://live.bilibili.com/25855174>

ZOOM Meeting



Bilibili

