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RCECWA
Regional Education and Research Center on Earthquake Risk Management and Resilience for West and Central Asia

International Institute of Earthquake Engineering and Seismology (IIEES)

Webinar on:

BJUT-IIEES-RCECWA Joint Workshop

"Why Systems Thinking for Urban Resilience?"

Date: Tuesday, November 10, 2026; 13:30-17:30 (Beijing Time)

College of Architecture and Civil Engineering, Beijing University of Technology, Beijing, China

The Beijing University of Technology (BJUT), the Int. Inst. of Earthquake Engineering and Seismology (IIEES), Int. Inst. Of Applied System Analysis (IIASA), and the UNESCO Regional Education and Research Center on Earthquake Risk and Resilience in West and Central Asia (RCECWA) have launched a scientific collaboration on earthquake risk prevention and mitigation for urban areas and infrastructure systems—a macro-level issue encompassing many research topics.

Urban resilience requires a systems thinking approach because cities are dense webs of interacting systems—transportation, energy, water, housing, health, finance, and governance-rather than collections of independent problems. The consequences of a single shock, such as a flood, cascade across all these domains, disrupting mobility, power, businesses, and healthcare, with the worst effects falling on low—income communities. Siloed interventions fail because they treat symptoms in isolation and overlook these feedback loops and dependencies. Systems thinking reveals the root causes of vulnerability-such as inequitable land use, aging infrastructure, and fragmented institutions—and, by mapping relationships and identifying leverage points, helps planners anticipate how shocks propagate across sectors. Ultimately, systems thinking enables adaptive, cross-sectoral strategies that make resilience a property of the whole system rather than a patchwork of isolated protections.

The First Workshop, entitled "Why Systems Thinking for Urban Resilience?" and organized around the theme "**Toward an Integrated Urban Resilience Framework**," features the following program:

9:00 – 9:15 (Tehran time) **13:30 – 13:45** (Beijing time)	**Opening Statement Workshop Objective and Plan by:** ***Prof. Chengshun XU:*** *Dean of College of Architecture and Civil Engineering, BJUT, China* ***Prof. Mohsen Ghafory-Ashtiany****: Professor of IIEES (Iran) and Guest Professor of BJUT (China)*
9:15 – 12:00 (Tehran time) **13:45 – 16:30** (Beijing time)	**Presentations:** 1. ***Prof. Amir Albadvi:*** *From Sector Models to Urban Systems: Modelling interdependencies, Cascades and Leverage Points (Online lecture)* 2. ***Dr. Benwei Hou:*** *System Modeling for Seismic Performance and Resilience of Urban Water Supply Network* 3. ***Prof. Nadja Komendantova, Dr. Dmitry Erokhin:*** *When the City Shakes: Lifeline, Misinformation ad Urban Resilience (Dir. of Cooperation and Transformative Governance Research, IIASA)* 4. ***Prof. Amir Albadvi:*** *URSA: From Urban Systems Mapping to Systemic Resilience Intelligence (Online lecture)* 5. ***Prof. Tao Wang:*** *System modelling of Urban infrastructures for seismic resilience assessment* 6. ***Prof. Mohsen Ghafory-Ashtiany, Dr. Amir Shahmohammadian:*** *Navigating Housing System Complexity; Case Study of Iran Housing System* *Note: Each Lecture is 20 minutes and follows by 10 minutes Q/A*
12:00 - 13:00 (Tehran time) **16:30 – 17:30** (Beijing time)	**Discussion: Connecting the Threads: Toward an Integrated Urban Resilience Framework** ***Moderated by Prof. Liang Liu, Prof. Amir Albadvi, and Prof. Mohsen Ashtiany***

Zoom online meeting links: https://us06web.zoom.us/j/73360451986?pwd=7kMMEKD8bZ5FpQ5FNo9wotkmeTz7gj.1