

EERI-Polymtl, Purdue and McGill Student Chapters Journal Club

**Field Insights: Retrofitting, Rebuilding and Recovery in Türkiye
after the 2023 Earthquake Sequence**

Egemen Sönmez, Ph.D.

Assistant Professor, Civil Engineering Department
Izmir University of Economics, Türkiye

Date: Thursday, December 5, 2024

Time: 12:00 PM- 1:00 PM (ET)

Location: Hybrid Mode (Teams link: <https://tinyurl.com/PurdueEERI>)

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ABSTRACT

On February 6, 2023, southeastern Türkiye experienced two devastating earthquakes, Mw 7.8 and Mw 7.5, causing over 50,000 fatalities, severe damage to more than 200,000 buildings, and leaving 1.5 million people homeless across 11 provinces. Dr. Egemen Sönmez participated in two reconnaissance missions: the first with ACI shortly after the earthquakes, assessing around 250 buildings, and the second with EERI in October 2024, focusing on recovery and retrofitting efforts. This presentation will highlight recovery efforts for the building stock and key lessons learned from these two reconnaissance mission observations. It will also discuss the prevalent structural systems in the region, their seismic performance, and the measures being implemented to improve the performance of new buildings. Egemen has co-authored three research articles, four conference papers, and two magazine articles on this event.

BIOGRAPHY



Dr. Egemen Sönmez is a faculty member in the Department of Civil Engineering at Izmir University of Economics, Türkiye. He earned his Ph.D. in 2020 and taught in various civil engineering departments before joining Izmir University of Economics in 2023. His teaching and research interests focus on earthquake engineering, seismic design of structures, structural dynamics and modeling, and evaluating existing structures. He has inspected post-earthquake building damage following the 2020 Samos Earthquake and the 2023 Kahramanmaraş Earthquakes. He is a member of the Turkish Earthquake Engineering Association and the EERI. He also serves as the Chairman of the Structures Committee at the Izmir Branch of the Turkish Chamber of Civil Engineers.