

Session ID: EVO-10

Title

ATC AT 50 - ADVANCING EARTHQUAKE ENGINEERING KNOWLEDGE AND APPLICATION IN THE UNITED STATES AND BEYOND

Convenors

A. Hortacsu ¹

Description

Following the devastating effects of the 1971 San Fernando Earthquake, the Structural Engineers Association of California (SEAOC) identified the need for an organization dedicated to technology transfer between research and practice and established the Applied Technology Council (ATC) as a non-profit corporation in 1973. In the 50 years since its founding, ATC has stayed true to its mission to imagine, develop, and promote the advancement of technologies to enhance societal resistance to natural and other hazards through the conduct of over 300 projects with the participation of thousands of engineers and other professionals in the U.S.A. and abroad. ATC has prepared methods, tools, and guidance documents that range from post-disaster safety evaluation guidance that are now the de-facto standards used internationally (ATC-20 and ATC-45) to preparation of the performance-based seismic design methodology FEMA P-58 over a period of 15 years.

This session will highlight selected projects from recent work to shine a light on the future of earthquake engineering and the potential that exists to create safer, more resilient communities. Jon A. Heintz will present a retrospective of the past, present, and future of earthquake engineering from the perspective of technology transfer. A presentation on steel moment frame design, evaluation, and retrofit by James O. Malley will reflect on the research and code development already accomplished and reflect on the work that remains, there is still a large existing building stock with known potential vulnerabilities. A presentation on the newly developed concept of functional recovery by Ryan Kersting will benefit from the retrospective on performance-based design and emphasize the need for designing for better than life safety. The methods and tools developed by ATC are applicable to earthquake engineering practice in all affected countries and some methods can also be applied to other hazards.

Invited Speakers

J. Heintz ¹, J. Malley ², R. Kersting ³

Affiliations

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