

ICONHIC2026

## THEMED SESSION

# Innovative Retrofit Strategies for Seismic Protection of Structures with Vibration Control Systems

29 June – 2 July 2026 | Chania, Greece

## ORGANIZERS



**Prof. Evangelos Sapountzakis**

NTUA, Greece



**Konstantinos Kapasakalis**

NTUA, Greece

## DESCRIPTION



The scope of this technical session concerns the mitigation of seismic responses of existing structures. Towards this direction, vibration control advancements focus lately on the development of passive, semi-active, and active control techniques. Among others, these include the incorporation of additional oscillating masses, that introduce damping to the structural system (i.e., Tuned Mass Dampers – TMD), the application of negative stiffness elements (i.e., Negative Stiffness Devices – NS, and Quasi-Zero Stiffness Oscillators – QZS), and TMDs with Inerters (i.e., Tuned Mass Dampers Inerter – TMDI). This technical session encourages the submission of research papers presenting new findings in the field of computational modelling, experimental testing, and optimization of novel vibration control approaches implemented in existing structures for seismic protection. Topics relevant to this technical session include, but are not limited to: seismic protection techniques for civil engineering structures against horizontal or vertical component of ground motions, innovative vibration control systems (negative stiffness elements, inerters, tuned mass dampers), advanced and simplified numerical modelling of vibration isolation and energy dissipation devices, experimental testing of isolation/dissipation devices, and analytical methods for simplified modelling and analysis.

**ABSTRACT SUBMISSION DEADLINE**

**31 October 2025**

**MANUSCRIPT SUBMISSION DEADLINE**

**14 February 2026**



secretary@iconhic.com

International Conference on Natural Hazards & Infrastructure