

**Session ID:** RES-1

**Title**

ADVANCED ASSESSMENTS OF THE SEISMIC RESILIENCE OF INFRASTRUCTURES

**Convenors**

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**Description**

Civil communities are particularly vulnerable to natural hazards, such as earthquakes and thus the assessment of their resilience is extremely important for decision-making sciences. Resilience may be described as the ability to maintain the functionality of infrastructures to deliver services during and after hazard events. In this regard, many stakeholders may take advantages of such concept to consider the investments on infrastructures on their components, and subcomponents subjected to natural hazards, such as earthquakes. Resilience may be described two base principles: 1. prevention and 2. learning from the present for future events. In this regard, it may be considered the adaptability of a system or a community to external events and many contributions need to be put together: social dimension of resilience, the importance of learning from the past, the community exposure, the possibility to change, the need to define some levels of performance and the importance of future protection actions.

Moving from this background, this session aims to make a state-of-the-art update on the most credited approaches with a specific focus on seismic resilience. The studies related to seismic resilience analyses will be considered in this technical session, in order to expand the field on novel and developed case studies. Although, few studies have been conducted on the seismic resilience of infrastructures, the recent destructions caused by the earthquake imply that distinct resilience analyses are needed in different regions and infrastructure systems. Thus, this session is aimed to bring together diverse stakeholders such as researchers, designers, infrastructure owners and planners to a common platform and create a fruitful forum to exchange state-of-the art in the knowledge on seismic resilience infrastructure systems.

**Invited Speakers**

F. Fraternali <sup>4</sup>, R.S. Jangid <sup>5</sup>, S. Viti <sup>6</sup>, M. Tanganelli <sup>6</sup>, A. Tessari <sup>7</sup>, K. Wijesundara <sup>8</sup>, K. Kalfas <sup>9</sup>, S. Alzabeebee <sup>11</sup>, I. Oz <sup>12</sup>

**Affiliations**

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