Session ID: BCI-12

Title
SEISMIC RISK MANAGEMENT FOR ROAD AND RAILWAY INFRASTRUCTURES

Convenors
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Description
This technical session would like to propose a focus on measures to mitigate earthquakes effects on land transport networks considering Safety Management Systems and Italian Guidelines for existing bridges and tunnels.

ANSFISA, the National Agency for the Safety of Railways, Road and Motorway Infrastructures, has the task of promoting safety and supervising, also through audits and inspections, safety condition of railways, roads, motorways and fixed installations such as subways, cable cars, tramways, and others. ANSFISA aims to implement a modern concept of safety defining proactive and evolutionary actions and processes, developing studies and research, promoting the increasing involvement of infrastructure operators and transport companies who are directly responsible for defining effective Safety Management Systems and planning maintenance and risk control activities.

As is well known, seismic phenomenon in Italy is widespread, so it is important to take into account the vulnerability of the structural sub-systems that compose the transport networks, in order to improve risk management methodologies. For what concerns the seismic risk related to the principal structures of land transport infrastructures (such as bridges) an in-depth knowledge of the structural behavioral aspects in case of earthquakes is fundamental. Such process must be conducted in the light of the results of the modeling of the transport networks response to allow road infrastructure managers to proactively plan the measures needed to mitigate the effects of earthquakes at a regional scale. These measures must be defined in accordance with Safety Management System processes and in agreement with the procedure of the recently issued Italian Guidelines for existing bridges/tunnels.

We invite the submission of contributions including theoretical and experimental studies, models and field experiences related to the topic of seismic protection of land transport infrastructure and networks, finalized to improve risk management methodologies and mitigate earthquakes effects.

Invited Speakers
F.P. Deflorio [2], M.C. Florez [3], M. Petrangeli [4], F. Iacobini [5]

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