



Dipartimento di Strutture per l'Ingegneria e l'Architettura (DiSt)

Nell'ambito del **Corso di Dottorato in
Ingegneria Strutturale, Geotecnica e Rischio Sismico**

Lunedì 4 aprile 2022, ore 9:30-12:30

Dott. Ing. Filomena de Silva

Seminario

Influence of the dynamic soil- foundation-structure interaction on the seismic risk of structures

Detailed analyses of data recorded on structures founded on soft soil demonstrated that their seismic response is significantly affected by the dynamic interaction between the structure, the foundation and the surrounding soil (SFSI). Neglecting such effects may imply misleading interpretations of monitoring data as well as inaccurate numerical models. The course is aimed at providing the basic concepts and skills to analyse the response of existing structures affected by SFSI in seismic conditions by means of simplified to advanced approaches. The main aspects of kinematic and inertial interaction with the relevant models and methods of analysis will be firstly introduced. The SFSI influence on the seismic hazard, vulnerability and risk will be then discussed. The theoretical framework, some numerical applications and experimental observations will be examined. The preliminary knowledge of basic concepts such as complex algebra, dynamic soil behavior, dynamic equilibrium of a simple oscillator and response spectrum is expected.

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Iscrizioni all'indirizzo phd.dist@unina.it

Per accedere al seminario sarà necessario esibire il **Green Pass**
e indossare la **mascherina FFP2** per tutta la sua durata