International Advanced School
Soil-Structure Interaction in OpenSees, SSI-OS strategies, applications and perspectives
9-11 September 2024

Motivation and goal
OpenSees is an evolving numerical framework for advanced assessment of civil engineering structures against natural hazards, in which dominant soil-structure interaction features can be simulated through multiple levels of complexity.

We will explore soil-structure modelling in OpenSees, focussing on critical issues of the implementation. After a short introduction to OpenSees, the development of nonlinear dynamic analyses is the main goal of this path. New-generation approaches for assessing the dynamic performance of soil-structure systems will be described.

With respect to 2023 SSI-OS, in the present edition the discussion of the numerical strategies to soil-structure interaction will be extended to the use of tools for regional analysis and artificial intelligence-based assessment. Several example applications will be provided, supported by hands-on experience and working groups.

Organising Committee
Davide Noè Gorini   Pedro Arduino   Guido Camata   Massimo Petracca   Domenico Gallese

Speakers
Dr. Davide Noè Gorini
Prof. Pedro Arduino
Dr. Silvia Mazzoni
Prof. José Abell
Dr. Domenico Gallese

Prof. Frank McKenna
Eng. Giuseppe Lombardi
Dr. Yu-Wei Hwang
Dr. Tony Fierro
Dr. Faisal Nissar Malik

Hotel Domus Pacis Assisi
Piazza Porziuncola, 3L
Santa Maria degli Angeli, Assisi (Italy)

School venue
in the historical town of Assisi
board & lodging...
School Hall
**SCIENTIFIC PROGRAMME**

**Monday, 10 September 2024**

**Session 1** Basics of modelling soil-structure interaction in OpenSees  
P. Arduino, D.N. Gorini, D. Gallese, M. Petracca

**Session 2** Coupled modelling: from theory to practice OpenSees  
D.N. Gorini, J. Abell, D. Gallese, Y.W. Hwang

**Interacting lecture** Implementing the static and seismic analysis of a coupled soil-bridge system - D.N. Gorini

**Tuesday, 11 September 2024**

**Session 3** Parallel computing: general settings and optimisation  
D.N. Gorini, J. Abell, S. Mazzoni

**Working groups** Advanced features of coupled modelling  
P. Arduino, G. Lombardi, J. Abell

**Session 4** Time-domain decoupled modelling: from theory to practice  
P. Arduino, D.N. Gorini, F.N. Malik

**Interacting lecture** Application of new-generation practice-oriented approaches to a soil-bridge system  
P. Arduino, D.N. Gorini

**Round table** Applications, strategies and new trends

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**Registration**

Registration to the School is mandatory through this form. Registrations will be accepted subject to availability (maximum number of attendees = 100). The payment of the fees can be made after the acceptance of registration and, however, within the period March 15-July 30.

**Stay tuned!**

More information about fees, board & lodging at Hotel Domus Pacis will be provided soon.
Sign in at this link to set up the alerts.