

Course announcement
“Introduction to Wind Engineering”
Prof. Vincenzo Sepe



Hours 16
Compulsory attendance

Final essay based on a set of questions.

The course describes the basic elements for understanding wind-structure interaction phenomena of interest to civil engineering.

The first part of the course (lessons 1 and 2) is devoted to model the wind field in the atmospheric boundary layer and its effects on bluff bodies such as civil structures. Analytical models to describe the response of civil structures subject to wind actions are also introduced.

The second part (lessons 3 and 4) deals with the static and dynamic response of civil structures subject to wind actions, both from a theoretical point of view and with reference to the procedures suggested by technical codes. An introduction is also provided to aeroelastic phenomena, with particular reference to suspension and cable-stayed bridges. The procedures to obtain the aerodynamic and aeroelastic coefficients for some typical structural types are illustrated through examples of wind-tunnel experimental tests on in-scale models.

Vincenzo Sepe is currently an Associate Professor of Structural Mechanics (“Scienza delle Costruzioni”) at the University “G.d’Annunzio” of Chieti-Pescara, Department of Engineering and Geology.

He is a member of the Italian Associations for Wind Engineering (ANIV), where he served (2011 – 2015) as a member of the Management Committee.

He is a member of the Management Committee of the CRIACIV (Inter-University Research Centre on Building Aerodynamics and Wind Engineering) between the Universities of Florence, Rome “La Sapienza”, Perugia, Trieste, “G. d’Annunzio” Chieti-Pescara, IUAV-Venice, Padua and University of Campania “L. Vanvitelli”.

His current research activity is devoted to several aspects of the dynamic response of civil structures under seismic and wind actions and to the structural modeling of masonry buildings.

✉ **Register within April 24th by** sending email to:

tea.taraborelli@unich.it & v.sepe@unich.it (in cc)

Please indicate if interested to attend the whole course or only the first part (lessons 1 and 2).

For those not at University of Chieti-Pescara it is possible to follow the short course online: specify request when you register.

TIMETABLE
1) Wednesday May 15 th 2024, from 3 p.m. to 7 p.m.
2) Thursday May 16 th 2024, from 9 a.m. to 1 p.m.
3) Thursday May 30 th 2024, from 3 p.m. to 7 p.m.
4) Friday May 31 th 2024, from 9 a.m. to 1 p.m.