

Elements of Output-Only Modal Analysis for civil structures and infrastructures

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General Information

The course will introduce the students to the problems related to the dynamic test of large civil structures and infrastructures. The main techniques in the time (SSI) and frequency domain (FDD, EFDD) applied nowadays will be deeply illustrated along with the practical issues that can arise during the in-situ testing campaign. Lastly several case of study will be shown in detail to practically illustrate the aforementioned methods.

Materials

It is recommended the use of a laptop with the MATLAB © software for the exercitation.

Schedule

Dates	Description
10/05/2023 – 9-11	Introduction to the modal testing basis
17/05/2023 – 9-11	Frequency domain techniques
24/05/2023 – 9-11	Time domain techniques
31/05/2023 – 9-12	Practical issues in modal testing
07/06/2023 – 9-12	Illustration of representative test-cases
Total 12 Hours – 2 Credits	

Other information

The final exam will be the discussion of the exercise that will be assigned at the beginning of the course to the students based on a real case of study.

The course will be held online.

For any information www.indicee.unifi.it - dott-dicea@unifi.it