UE Dynamics of structures

Level
Baccalaureate +5

ECTS
3 credits

Component
UFR PhITEM (physique, ingénierie, terre, environnement, mécanique)

- **Teaching language(s):** English
- **Open to exchange students:** Yes
- **Code d'export Apogée:** PAX9CEAN

Presentation

Description

The scope of this course is to introduce students into the importance of dynamic loading and to familiarize them with the different techniques used for the dynamic modeling and analysis of structures.

The beginning of the course concentrates on the study of wave propagation phenomena in elastic solids (essentially one dimensional progressive plane waves). Emphasis is placed on the split Hopkinson pressure bar experiment.

The second part of the course focuses on direct numerical integration methods applicable to linear and nonlinear systems.

The last part of the course concentrates on the study of multiple#degree#of#freedom linear systems and the calculation of their response by modal superposition.

Course parts

UE Dynamics of structures - CM	Lectures (CM)	26h

Period : Semester 9

Useful info

Campus

- Grenoble - University campus