



SPLIT SUMMER SCHOOL STSS2022

COURSE: NATURAL HAZARDS AND RISK ANALYSIS

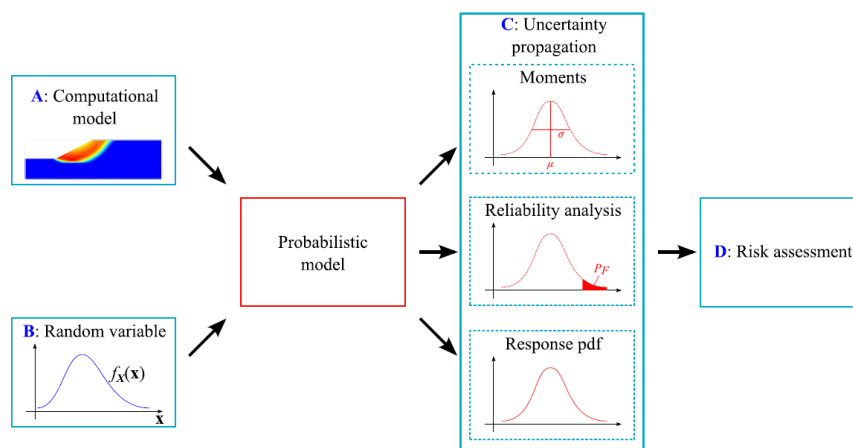
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Main topics:

- Introduction to risk assessment of engineering systems
- Approaches to identify and statistically describe uncertainties
- Introduction to probabilistic analyses with state-of-the-art numerical tools
- Implementation of qualitative and quantitative risk analyses
- Development and discussion of measures to reduce risks
- Applications to landslide and wind hazards



Source: <https://geologyscience.com/natural-hazard/>



Programme structure:

- 5-day course
- Lecture notes for each of the modules will be distributed to the students

Important dates:

Course dates: 05/09/2022 – 09/09/2022
Deadline for application: 22/07/2022
Confirmation of the course: 02/08/2022
Payment due by: 22/08/2022

Price of the course: 300 € (tax included)

Programme plan:

Day 1

- Introduction to natural hazards and risk assessment (1h)
- Basics of probability and statistics (3h)
- Individual work/exercise (2h)

Day 2

- Introduction to probabilistic analysis of engineering systems (2h)
- FOSM and FORM reliability methods (2h)
- Individual work/exercise (2h)

Day 3

- Monte Carlo method (2h)
- Introduction to risk assessment (1h)
- Individual work/exercise/final project (3h)

Day 4

- Qualitative and quantitative risk analysis (2h)
- Performance-based wind engineering (1h)
- Individual work/exercise/final project (3h)

Day 5

- Performance-based wind engineering (1h)
- Final project (3h)
- Project presentation (2h)

Programme lecturers:

Ph. D. Ivan Đepina M. Civ. Eng,
Assistant professor at the University of Split, Faculty of Civil Engineering, Architecture and Geodesy, Department of Hydromechanics and Hydraulics, Split, Croatia.

Ph. D. Vladimir Divić M. Civ. Eng,
Associate professor at the University of Split, Faculty of Civil Engineering, Architecture and Geodesy, Department of Metal and Timber Structures, Split, Croatia.

Ph. D. Ante Munjiza M. Civ. Eng,
Professor at the University of Split, Faculty of Civil Engineering, Architecture and Geodesy, Department of Theory of Structures, Split, Croatia.

Ph. D. Bernardin Peroš M. Civ. Eng,
Professor Emeritus at the University of Split, Faculty of Civil Engineering, Architecture and Geodesy, Department of Metal and Timber Structure, Split, Croatia