



UNIVERSITÀ DEGLI STUDI
DI PERUGIA



CIVIL AND ENVIRONMENTAL ENGINEERING

DOCTORAL PROGRAM

PROBABILITY THEORY, STOCHASTIC PROCESSES AND RELIABILITY

MODULE 3: RISK AND RELIABILITY IN CIVIL AND ENVIRONMENTAL ENGINEERING

Instructors: Marco Breccolotti, Ph.D., Assistant Professor, Perugia University

Course Description: The module is aimed at providing students information and tools to:

- Perform risk analysis of simple civil engineering structures and evaluate the risk of a system using relevant techniques and criteria.
- Perform reliability calculations at the element level, using relevant techniques, such as level III, II, I methods.
- Understand the main safety concepts behind structural design codes (Eurocode) and derive design values for load and strength for civil engineering structures.

The module is organized in three four-hours Sections. Classroom exercises will be developed to better understand the design techniques addressed in the theoretical part of the program.

July, 13th 2020

Section 1

9:30 – 12:30 Risk, basis of Reliability calculations and Level III methods

12:30 – 13:30 Classroom exercises

July, 14th 2020

Section 2

9:30 – 11:30 Level II methods

11:30 – 13:30 Classroom exercises

July, 15th 2020

Section 3

9:30 – 11:30 Level I Methods and Derivation of Partial Factors

11:30 – 13:30 Classroom exercises

Marco Breccolotti is Assistant Professor in Structural Design at Perugia University, Department of Civil and Environmental Engineering. He received his Ph.D. in Civil Engineering from Perugia University. He was visiting researcher at Michigan University under the supervision of Prof. A.S. Nowak. Dr. Breccolotti has developed international scientific collaborations with several institutions among which the Technion – Israel Institute of Technologies (IL), University of Michigan (USA), University of Oviedo (ES) and University of Cergy-Pointoise (F). His research interests include safety assessment of existing reinforced concrete structures by nondestructive testing, structural reliability, evaluation of fire resistance of reinforced concrete structures, identification of damage in reinforced concrete structures through dynamic tests, and recycled aggregates concretes.



Location: Perugia University MS Teams platform.
Ask details for more information.

Timetable: July, 13th, 14th, 15th 2020, 9:30 – 13:30

