

International Doctorate in Civil and Environmental Engineering

DOCTORAL COURSE

## Risk management for natural hazards

Teacher: Prof. **Marco Uzielli**

DICeA, Università degli Studi di Firenze and Georisk Engineering S.r.l.

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Calendar	
Tue, 16/02/2021 11:00-12:00	Course introduction and illustration of course material and resources
Wed, 03/03/2021 10:00-12:00	Group session 1: planning of quantitative risk analysis accounting for climate change
Wed, 10/03/2021 11:00-12:00	Group session 2: assignment of individual project topics
Wed, 24/03/2021 11:00-12:00	Group session 3: check 1 on progress on individual projects
Wed, 14/04/2021 11:00-12:00	Group session 4: check 2 on progress on individual projects
Wed, 28/04/2021 10:00-12:00	Group session 5: oral presentation of individual projects
Total	8 hours – 4 credits

Program
<p>Risk is an increasingly relevant concept in the management of human communities and of the environment. The increasing impact of natural hazards, including the effects of climate change, requires a rational, quantitative approach to risk-based decision-making.</p> <p>This course will provide a technical overview of the concept of risk for human-valued assets to natural hazards. Conceptual frameworks and operational methods will be illustrated as well as case-study applications.</p> <p>The course will adopt a “flipped classroom” approach based on self-study of provided course material and independently obtained resources, group discussions and individual project work.</p> <p>Course participants will be assessed through a written report and oral presentation focusing on a specific instance of quantitative estimation of the temporal evolution of hazard, vulnerability and/or risk due to climate change and/or other natural factors.</p>