

International Doctorate in Civil and Environmental Engineering

DOCTORAL COURSE – A.Y. 2021/22

Integrating remote sensing techniques for monitoring of deformations

Teacher: **Francesco Mugnai**,
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Calendar	
7/10/2021 – 09,30-11,30	On line
12/10/2021 – 09,30-11,30	On line
14/10/2021 – 09,30-12,00	On line
17/10/2021 – 09,30-12,00	On line
Total	9 hours – 4,5 credits

Program
<p>The course aims to increase the students' knowledge about measuring ground deformation and, moreover, how to integrate acquired data from different measuring tools and techniques, to obtain an optimal deformation process assessment depending on environment, boundary conditions, available resources. Starting from giving an overview on main deformation processes, causes, triggers, and type, the course will review measuring and monitoring techniques; from the most consolidate e.g., clinometers, gouge meters, RTS, to the very vanguard ones e.g., RADAR Interferometry, Laser Scanner, Digital Image Correlation. For each technique some case studies and applications will be studied, cutting edge scientific papers will be critically discussed to investigate the different strengths and to build a consolidate awareness on forefront monitoring systems, standards, and opportunities.</p>