

Training School of the COST Action TU1208 Civil Engineering Applications of Ground Penetrating Radar

Ground Penetrating Radar (GPR) is a safe, advanced, non-destructive and non-invasive imaging technique for the inspection of composite structures and diagnostics affecting the whole life-cycle of civil engineering works. The course will introduce the main electromagnetic techniques useful for the modeling of complex GPR scenarios, for a better understanding of GPR measurements. The main applications of GPR in the frame of Civil Engineering will be focused, as the inspection of roads, bridges, as well as buildings' survey. Operational principles of GPR will be shown, with a focus to inverse scattering and imaging techniques, as well as through a visit to a GPR training Laboratory. An original study or design contribution will be proposed to trainees.

Date	September 22-25, 2014
Credits	3
Scientific manager	giuseppe.schettini@uniroma3.it
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Venue

University of Pisa
School of Engineering
Largo Lucio Lazzarino 2, Pisa
Italy

Course Schedule

25 grants (registration included)
20 hours teaching
2 visits to a training Laboratory

Topics

- Electromagnetic modeling of GPR scenarios
- Applications of GPR technique in Civil Engineering
- Use of GPR technique for detection of the water content
- Inverse Scattering technique applied to GPR problems
- Visit to a training Laboratory

Lecturers

Prof. Amir Alani
Prof. Xavier Derobert
Prof. Antonis Giannopoulos
Prof. Sebastien Lambot
Prof. Massimo Losa
Dr. Guido Manacorda
Prof. Andrea Massa
Dr. Lara Pajewski
Dr. Cristina Ponti
Prof. Giuseppe Schettini
Prof. Jan Van der Kruk