

TERRE
Training Engineers and Researchers to Rethink geotechnical Engineering for a low carbon future

*European Commission – Horizon 2020
 Marie Skłodowska-Curie European Training Networks (ETN)*

1st TERRE School
‘Fundamentals of an interdisciplinary approach to design and climate-adaptation of geo-infrastructure’

26-27 September 2016
Largo S. Marcellino 10 - Naples, Italy

Aim of the School is to address interdisciplinary aspects in the design and climate-adaptation of geo-infrastructure in the low-carbon agenda. Special attention is paid to a nature-centric approach as opposed to the traditional mechanistic view of geotechnical design.

MONDAY, September 26th

Introduction to the School	
09.15 – 09:30	Opening address <i>Academic authorities</i>
9.30 – 10.00	A nature-centric approach to design of geo-structures in the low-carbon agenda <i>Prof Alessandro Tarantino – University of Strathclyde, UK</i>
Hydro-mechanical behaviour of soils interacting with atmosphere	
10.00 – 10.45	Fundamentals of hydraulic behaviour of unsaturated soils <i>Prof David Toll– University of Durham, UK</i>
10.45 – 11.15	Coffee break
11.15 – 12.00	Basic aspects of mechanical behaviour of unsaturated soils <i>Prof Simon Wheeler – University of Glasgow, UK</i>
12.00 – 12.45	Monitoring systems and experimental techniques for unsaturated soils <i>Prof Enrique Romero – UPC Barcelona, Spain</i>
12.45 – 13.30	Fundamentals of soil water / atmosphere interaction <i>Prof Alessandro Tarantino – University of Strathclyde, UK</i>

LUNCH TIME

Chemical and thermal factors interacting with soils	
14:45 – 15.30	Thermo-mechanical behaviour of soils <i>Prof Alessio Ferrari - École polytechnique fédérale de Lausanne, Switzerland</i>
15:30 – 16.15	Chemo-physical evolution and hydro-mechanical behaviour of treated soils <i>Dr Dimitri Deneele, IFSTTAR, France</i> <i>Prof Giacomo Russo – Università di Cassino e del Lazio Meridionale, Italy</i>
16.15 – 16.45	Coffee break
16.45 – 17.30	Timber-soil hydro-mechanical interactions <i>To be confirmed – Technological University of Delft, Netherlands</i>

TUESDAY, September 27th

Biological factors interacting with soils-	
09.00 – 09.45	Sticky MESS: what to expect from soil-microbe interactions Dr Charles Knapp, – <i>University of Strathclyde, UK</i>
09.45 – 10.30	Plant-soil mechanical interactions <i>Thierry Fourcaud/Alexia Stokes CIRAD, France</i>

Environmentally Sustainable Geo-infrastructure Design	
10.30 – 11:00	Introduction to Life Cycle Assessment <i>Maxime Pousse – Nobatek, France</i>
11:00 – 11.30	Coffee break
11:30 – 12.00	Life Cycle Assessment applied to geo-structures <i>Maxime Pousse – Nobatek, France</i>
12:00 – 12:45	Decision Support Systems to assist engineering design <i>Dr Angel Priegue – CIMNE, Spain</i>

LUNCH TIME	
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Guided visit to Naples historical monuments	
	Napoli sotterranea
	S. Lorenzo Maggiore
	Cappella Sansevero (Cristo velato)