## **PRESENTATION**

Environmental Geotechnics currently has to deal with numerous aspects and fields, such as the characterization of polluted sites and landfill waste, the design of containment systems for subsoil pollutant control, radioactive waste disposal, geo-energy exploitation and bacteria-driven soil modification, among others.

In order to obtain reliable and effective predictions of the actual behavior and performance of all these very complex systems, theoretical and experimental research and advanced design procedures needs to take into account hydro-bio-chemo-physical and mechanical phenomena and processes at very different geometrical scales and, above all, in coupled conditions.

Over the last few decades, these requirements have stimulated substantial advancements from the classical soil and rock mechanics background in terms of generalization, extension and refinement of theoretical modeling and experimentation capabilities.

Today, the possibility of further progresses in the scientific state of the art and the substantial advancements of practical applications in an environmentally sustainable manner are closely related to the development of a shared knowledge among the different basic and applied sciences and technologies.

The International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) contributed to these developments by an ad hoc Committee (TC 215 – Environmental Geotechnics - formerly TC 5), which was established under the ISSMGE presidency of Prof. M. Jamiolkowski (1994-1997). Since then, a number of conferences, symposia and workshops have been organized and they have attracted large audiences that have always taken part in lively, interesting and useful discussions. In particular, the main periodic International Conference of Environmental Geotechnics (TC 215 - ICEG) deserves mentioning, as it reached its 6th edition in New Delhi, India (2010).

Within this framework, the international symposium organized by ISSMGE TC 215 in Torino (Italy) in July 2013, has been planned as a unique event which will be specifically focused on the Coupled Phenomena in Environmental Geotechnics (from theoretical and experimental research to practical applications). In particular, the symposium will have the aim of discussing and sharing knowledge, skills and front edge research activities in the fields pertaining to theoretical aspects, experimental evidence and already operating, in progress and/or possible practical applications, looking not only inside the geotechnical community but also at related and complementary areas and disciplines.



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from theoretical and experimental research to practical applications

# COUPLED PHENOMENA IN ENVIRONMENTAL GEOTECHNICS (CPEG)

a TC 215 Symposium



ASSOCIAZIONE GEOTECNICA ITALIANA

#### **UNDER THE AUSPICES OF**





**ENDORSED BY** 



AND GEOTECHNICAL ENGINEERING

INTERNATIONAL GEOSYNTHETICS SOCIETY

Abstract submission: 31st August 2012 Abstract acceptance: 15th September 2012 Full paper submission: 31st December 2012

Full Paper acceptance: 28th February 2013

#### **MAIN TOPICS**

- Landfill waste characterization
- Stability and settlement analysis of landfills
- 3. Landfill bottom and side lining systems
- Capping systems for landfills and polluted sites 4.
- Geosynthetics in environmental geotechnics
- Characterization of polluted sites and related aquifers
- Active and passive barriers for polluted sites
- Degradation, extraction and inerting systems for the reclamation of polluted sites
- Radioactive waste disposal
- 10. Underground energy issues
- 11. Natural and anthropogenic bio-chemical processes within soils and rocks

#### **VENUE**

Politecnico di Torino - Aula Magna Corso Duca degli Abruzzi, 24 - Torino (Italy)

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