

## TC6 Committee on Unsaturated Soils

The TC6 Committee of the ISSMGE plays a leading role in the promotion of the series of international UNSAT Conferences. It participates actively in the technical aspects of the conferences and looks after the quality and general interest of the Conference. The Committee promotes cooperation and exchange of knowledge in unsaturated soils including, compacted, expansive, collapsible, arid, and residual soils.

## Call for Papers

One Page Abstracts on topics related to the Conference topics are invited by 15<sup>th</sup> of May 2009. Authors are kindly asked to submit abstracts by filling the form available in the Conference Web Site. Notification of Abstract acceptance will be given by July 1<sup>st</sup>, 2009. Full papers must be submitted before September 15, 2009.

## Official Language

The Official language will be English. No simultaneously translation will be provided.

## Location: Barcelona, Spain

The origins of the city of Barcelona, which have been defined thanks to archaeological remains and literary and cartographic sources, date from the 1<sup>st</sup> century A.D., when the Romans established a small colony around the Taber mount. Its whole past is projected into its present.

The Barcelona of the 21<sup>st</sup> century is a city shaped by the '92 Olympics, a city transformed for and by the need to do justice to that great international event. The Barcelona we see around us now, the Barcelona we enjoy today, is a new Barcelona, Mediterranean in keeping with its traditions, with its face to the sea and its arms open to other cultures and peoples, giving and receiving, happy to make and to share its riches.

The Barcelona of the 21<sup>st</sup> century is an European capital of astonishing cultural energy and a passion for progress, a city whose day-to-day life brings together every imaginable facet of the most diverse activities: these are the potential that has fashioned the city's present and give it the impetus to move forward into the future.

## CONFERENCE SECRETARIAT

### Technical Secretary

CIMNE

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### Conference Web Page

<http://congress.cimne.upc.es/UNSAT2010/>

### TC6 Web Site

<http://www.dur.ac.uk/~desOwww4/unsaturated/tc6/tc6.html>

# UNSAT 2010

## Important Dates

Abstracts reception: May 15<sup>th</sup>, 2009

Notification of Abstract acceptance: July 1<sup>st</sup>, 2009

Papers reception: September 15<sup>th</sup>, 2009

Papers review: November 30<sup>th</sup>, 2009

Final date for papers reception: January 15<sup>th</sup>, 2010

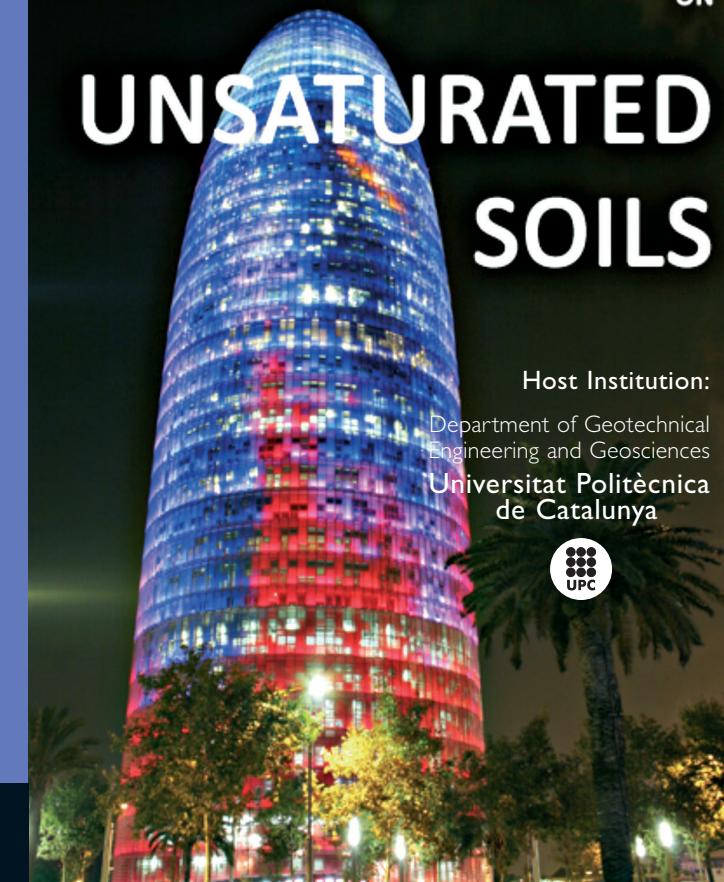
# UNSAT 2010

FIFTH INTERNATIONAL CONFERENCE  
ON

# UNSATURATED SOILS

### Host Institution:

Department of Geotechnical  
Engineering and Geosciences  
**Universitat Politècnica  
de Catalunya**



Barcelona, 6, 7 and 8 of September 2010



International Society  
of Soil Mechanics and  
Geotechnical Engineering  
TC6 Committee



Sociedad Española  
de Mecánica del Suelo

First Announcement. Call for papers.

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## Introduction

The series of International Conference on Unsaturated Soils ("UNSAT" conferences) constitute the main event in the field. The series started in Paris in 1995 as a natural evolution of the successful Conferences on Expansive Soils, which, for many years provided a forum for researchers and engineers interested in expansive materials, but also in unsaturated soils in a more general sense. The second, third and fourth UNSAT conferences were held in Beijing 1998 (China), Recife 2002 (Brazil) and Carefree Arizona 2006 (USA). The systematic research being conducted at Universities and Research Institutes and the increasing awareness of the Geotechnical Profession of the relevance of unsaturated soil behaviour in practice has led to substantial advances in fundamental knowledge, testing techniques, computational procedures and prediction methodologies. UNSAT 2010 will provide the opportunity to take stock of the current state-of-the-art and to set the bases for future advances.

## Objectives and Scope

The aim of the organizers is to offer an effective environment to present, review and discuss advances in the theory and application of Unsaturated Soil Mechanics. In addition to classical topics, the scope of the conference has been enlarged to cover new areas (swelling rocks, rockfill mechanics, multiphase media, and freezing soils) where present concepts on unsaturated soils have proved to be particularly useful. There is also a special interest in attracting well documented case histories.

## CONFERENCE TOPICS

### Unsaturated Soil Behaviour

Microstructure  
Water Retention  
Stress-strain  
Volume Change  
Strength  
Dynamics  
Temperature effects  
Chemical effects

### Testing Techniques

Laboratory  
"In Situ"  
Techniques for micro and meso-scale investigations  
Centrifuge testing

### Geotechnical Problems

Flow and Infiltration  
Soil-Atmosphere interaction  
Foundations  
Slope Stability  
Pavements  
Isolation barriers  
Soil cover systems for waste containment  
Embankment and dams  
Thermal problems  
Geoenvironmental problems  
Natural hazards

### Modelling

Fundamentals  
Constitutive modelling  
Analytical solutions and numerical analysis

### Case Histories

Engineering applications  
Field monitoring

### New Areas

Unsaturated rock. Swelling rock  
Rockfill mechanics  
Multiphase media (oil/water)  
Freezing soils and permafrost  
Energy issues (CO<sub>2</sub> sequestration, gas hydrates, ocean gassy sediments)

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