



ENOS
Enabling Onshore CO₂ Storage



Spring School announcement **Advanced course on geological storage of carbon**

ENOS 2nd Spring School on CO₂ Geological Storage

Date & place: May, 22nd to 29th 2019 at Hontomin, Spain

The overall objective of this *ENOS Spring School on CCS in Spain* is to communicate knowledge, understanding of CO₂ geological storage and aspects of CO₂ that is required to respond to our climate is warming at an alarming and unprecedented rate, and we have an urgent duty to respond and meet the growing demand for near zero emission. In this pursue special emphasis will be placed on the European context.

Why you must attend

The goal is to provide students with diverse backgrounds a broad understanding of the issues surrounding CO₂ geological storage as an effective tool in a wide range of climate change mitigation options and encourage their active participation in this area.

The climate change issue is coined one of the most severe concerns of our time, and has brought leading nations into ambitious ventures in order to reduce their greenhouse gas emissions. The challenge is to provide enough power under a sustainable framework.

Up to now, no green energy source has been identified as being capable of providing very large quantities of “power on demand” at acceptable cost. Fossil fuels are prone to remain the prevalent primary energy source in the foreseeable future in Europe as well as the rest of the world. But, in response to the climate change issue, the problem of increasing CO₂ emissions from fossil fuels must be resolved urgently.

In this endeavour it is expected that emerging carbon capture and storage (CCS) techniques will become part of the solution. CCS is one of the solutions to reduce carbon emissions and serves as a bridging technology towards a carbon free European energy market.

The course will give an introduction to: Global warming and climate change, greenhouse gasses (methane, CO₂...), sources, capture (focus on CO₂), transport, trap types & storage options, coal seams, depleted hydrocarbon structures, enhanced recovery, deep saline aquifers.

Reservoir geology & rock properties, geological structure, rock type, cap rocks and reservoirs, mineralogy, porosity, permeability, capillary pressure and fluid distribution.

Basic reservoir concepts: Reservoir pressure, reservoir temperature, storage capacity estimation fluid flow through porous media.

Storage concept and mechanism: CO₂ plume, dissolution, diffusion, CO₂ solubility rate, mineralization, geochemical aspects, injection, pressure build up. CO₂ Storage Economics, cost.

Monitoring, numerical modelling, leakage, verification and legislation. Environment, health & safety: Governing regulations, risk.

Language: The official language of the *ENOS Spring School on CO₂ Geological Storage* will be English. This implies that all lectures will be delivered in the English language.

Target group: The target group is young scientists, e.g. PhD students and post docs with background in geology, engineering, geotechnologies. Master students will be considered on free chairs.

Selection and grants: Students eligible to attend the *ENOS Spring School on CO₂ Geological Storage* will be selected upon qualifications that must be duly documented in the application.

The attendance will be free of charge. ENOS funding will be available for transport within Spain and for board. **However, the students themselves will carry direct expenses for travel to Madrid and back.**

In order to receive the *ENOS Studies Diploma* students have to attend the classroom sessions, and take active part in resolving of all exercises.

Due date and application

The application was by January 31st 2019, but there is still a few seats available and we will be happy to see your application before 31st March. 2019.

<http://www.enos-project.eu/>



Hontomín Technology Development Plant, Northern Spain