## Chair of Reservoir Engineering
### Department of Mineral Resources and Petroleum Engineering
#### offers

# Two PhD Scholarships focused on Numerical Simulation of $CO_2$ Migration

The Chair of Reservoir Engineering at the Montan University of Leoben, Austria invites applications for 2 funded 3 year PhD scholarships.

**Description position 1:** Developing a new numerical simulator for the large-scale migration of geologically sequestered $CO_2$. Within the multi-institutional team developing the original multiphysics-in complex- geometry code CSMP C++ on which the new simulator will be based, the successful applicant will apply the new simulation technique Discrete Event Simulation (DES) to reactive multiphase flow in heterogeneous porous media.

**Qualifications position 1:** MSc. or equivalent degree in applied mathematics, software engineering or computer science. Experience in numerical modeling is essential and fluency in C++ highly desirable. The successful applicant will be expected to travel in order to meet international collaborators and to present his/her work on international conferences, workshops and meeting with the industry.

**Description position 2:** Developing a new numerical simulator for the large-scale migration of geologically sequestered $CO_2$. Within the multi-institutional team developing the original multiphysics-in complex- geometry code CSMP C++ on which the new simulator will be based, the successful applicant will focus on the coupling of flow-, mechanical and chemical processes accompanying $CO_2$ migration and trapping.

**Qualifications position 2:** MSc. or equivalent degree in applied mathematics, software engineering or computer science. Experience in numerical modeling is essential and fluency in C++ highly desirable. The successful applicant will be expected to travel in order to meet international collaborators and to present his/her work on international conferences, workshops and meeting with the industry.

**University:** The Montan University of Leoben is a leading Austrian technical university focused on applied research and engineering.

**More information at:** www.unileoben.ac.at, Wiki: csmp.ese.ic.ac.uk, www.stephan-matthai.com, www.petroleumengineer.at

**Application process:** Applications should consist of a cover letter, statement of career interests, current CV and potential publications. Please name two referees and provide their contact details. Please send your application to Hannelore Bauer, (++43 3842 402-3001, hannelore.bauer@unileoben.ac.at).

**Closing Date:** 1st of May  2011      *Valuing diversity and committed to equality of opportunity*