

Department of Petroleum Engineering
Postdoctoral Position in Geothermal Reservoir Simulation

The Department of Petroleum Engineering at the Colorado School of Mines is seeking a postdoctoral researcher to work on a research project, funded by US Department of Energy, on modeling studies of Enhanced Geothermal Systems (EGS). This work is part of a \$1.2 million, on-going three-year project to develop a comprehensive and efficient reservoir simulator for modeling multiphase fluid and heat flow, coupled with effects of rock deformation and chemical reaction, in geothermal reservoirs. The postdoctoral researcher is expected to work with Dr. Yu-Shu Wu in the Petroleum Engineering Department and also to interact with scientists at the Lawrence Berkeley National Laboratory. The position is available **immediately** and we expect to fill the position in January, 2011.

The tasks for the postdoctoral researcher include: simulation of multiphase fluid and heat flow processes in porous and fractured media; implementation of a computational module for handling coupled effects of pressure and temperature variation induced rock deformation and a chemical reaction module to include important chemical species and their reactions in EGS geothermal systems; and model verification/validation efforts using laboratory and field data of geothermal reservoirs.

Qualifications: Experience in numerical reservoir simulation and scientific computing (Fortran/C/C++). Good understanding of multiphase fluid and heat flows in porous media and related transport processes and fundamental continuum mechanics (rock mechanics). Excellent interpersonal, communication (oral and written), and presentation skills. Experience with the TOUGH2 family of codes and commercial reservoir simulators is desired, but not required.

Compensation: An initial annual salary of \$52,500 is offered. Mines also provides an attractive benefits package including fully paid health insurance, dependent tuition benefits, parental leave policies, and dependent care assistance through a flexible spending plan.

How to Apply: Applicants can call or email Dr. Yu-Shu Wu (925-330-3318, ywu@mines.edu) Application review begins now and will continue until the position is filled.

Mines is an EEO/AA employer and is committed to enhancing the diversity of its campus community. Women, minorities, veterans, and individuals with disabilities are encouraged to apply.

Employment with Mines is contingent upon the satisfactory completion of a background investigation.