

RESEARCH ENGINEER

Summary

The Computational Hydrocarbon Laboratory for Optimized Energy Efficiency (CHLOE) is recruiting a Research Engineer on a position to simulate CO₂ injection into a depleted geological gas reservoir. Research objectives will be to study all the identified physical phenomena and their consequences including multiphase thermal flow, water vaporization, salt deposition, hydrate formation, thermo- and hydro-mechanical effects.

Job description

The successful candidate will work in collaboration with a multidisciplinary team. For the accomplishment of this mission, he/she will have the following functions:

- # make proposals based on the existing analysis;
- # define and benchmark simulation tools adapted to represent the immediate proximity of the well;
- # integrate this into a heterogeneous 3D geological reservoir simulation model.

Job requirements

As a candidate, you should possess a PhD degree, a background in reservoir engineering or in related disciplines, including chemical engineering, physics or applied mathematics, with a research skill in numerical modelling. However, candidates with relevant qualifications (Engineer degree or Master) with three or more years of research experience in the industry will be also taken into account.

Strong knowledge of fluid mechanics modelling methods, multiphase and thermodynamic flows are required.

Experience in thermodynamic description of reservoir fluids and CO₂, in particular, for simulation of oil reservoirs, and participation in industrial projects will be greatly appreciated.

Computer science


Proficiency in modern programming language (eg Java, Matlab), and proven experience in programming are desirable. Mastery of oil tank simulation software and skills in programming is desirable.

Professional proficiency in English is required and some knowledge or the willingness to acquire the French language will be appreciated. You will join ADERA, which is a regional organisation facilitating the management of research projects.

A salary of 36 – 54k€ is part of the offered package.

Start date: as soon as possible

Project duration is foreseen to last for 36 months.

If interested, please submit an application with your CV to:  chloe-rh@univ-pau.fr