



PhD Research Position at UPC-CIMNE (Geomechanics group), Barcelona

The Geomechanics group of the Universitat Politècnica de Catalunya – Barcelona Tech (UPC-CIMNE) welcomes applications for a fully funded PhD Research Position for three years, with a possible extension to a fourth year.

The research involves the study and modelling of the thermo-hydro-mechanical (THM) behaviour of argillaceous rocks. The interest on those materials has increased in recent times because they play a key role in many areas of energy geo-engineering. Although argillaceous rocks are very widespread (they outcrop in about a third of the emerged earth surface), their THM characteristics are challenging and require further research efforts.

The successful candidate will work on constitutive modeling and coupled THM numerical analyses of engineering problems involving argillaceous rocks, potentially subjected to high temperatures. The work will be carried out in the framework of an international research project that will provide laboratory and field data for calibration and comparison with modelling results. Although the project is related to nuclear waste disposal, it is envisaged that the research will have a wider field of applicability. The work will be supervised by Prof. Antonio Gens and other members of UPC-CIMNE Geomechanics group.

We are looking for a highly motivated and creative PhD student. Ideally, the candidate should hold a degree in Civil Engineering, Geological Engineering, Applied Mathematics or other relevant fields; preferably with a strong background in continuum mechanics and/or numerical methods. A postgraduate degree and previous research experience will be appreciated. Strong mathematical, computing and programming skills will be especially valued. A good proficiency in English is required as well as competence in writing and oral communication.

The successful candidate will join an active and stimulating research group with strong international connections. The gross annual salary is 16,127 € for the first 2 years, 17,279 € in the third year and 21,599 € for the fourth year (if applicable). No PhD tuition fees will be charged.

Interested persons are invited to submit an application to antonio.gens@upc.edu containing a CV in English, a letter of motivation in English and the contact details of two referees (or two reference letters). The deadline for applications is November 30th. We are aiming to fill the position as early as possible.