

E2S-PhD positions at University Pau & Pays Adour in the Geomechanics and Porous Media group (G2MP)

Doctoral school	Doctoral School of Exact Sciences and their Applications (↗web-ED211).
University	University Pau and Pays Adour (↗web-UPPA).
Program	2nd Call for applications for PhD grants (↗web-Program)
Laboratory	Laboratory for the thermodynamics of complex fluids and geological reservoirs UMR5150 UPPA/CNRS/TOTAL (↗web-LFCR).
Research team	Geomechanics and Porous Media (↗web-G2MP).

Context

The Energy and Environment Solutions initiative (E2S-UPPA) is a substantial, multi-year growth plan (<https://e2s-uppa.fr/>). Problem-oriented, inter-disciplinary and transverse research in Energy and Environment, is pursued while putting the emphasis on either industry relevance or high visibility in leading academic journals. Interests span over all areas of Energy and Environment, including but not limited to optimization of geo-resources exploration and exploitation, optimization of energy storage, materials for renewable energy, composites for structural lightening, analytical and microbial environmental analysis for diagnostic and remediation, as well as evaluation of organisms adaptation to environmental stresses in evolving or controlled ecosystems, and social issues about energy and environment.

Laboratory and research group description

LFCR is a research unit associated to UPPA, CNRS and the petroleum group TOTAL (UMR5150).

The research activity is decomposed into four research teams:

- Characterisation of geological reservoirs
- **Geomechanics and porous media (G2MP)**
- Interfaces et disperse systems
- Thermo-physical properties

At LFCR, the G2MP research team localised on the French Basque Coast at Anglet focuses on the mechanical behaviour of porous media, on the properties of confined fluids, on the fluid-solid couplings and on the transport properties in porous media.

The G2MP develops experimental activities such as modelling ones based on numerical tools at different scales.

This research team is highly multidisciplinary and gathers specialist in mechanics, physics or civil engineering focussing on the same scientific object: the porous media.

The current activities principally concern:

- Fluid behaviour in microporous media;
- Poromechanics of micro/meso porous media. Nano to continuum upscaling;
- Links and coupling between fracture, cracking, transport and fluid reactivity.

Project and job description

Different PhD opening positions are available this year. The complete list may be found at:

<http://perso.crans.org/gregoire/positions@G2MP>

The successful candidate will be hosted by the Geomechanics and Porous Media team of the Laboratoire des Fluides Complexes et leurs Réservoirs (LFCR, UMR5150, UPPA-CNRS-Total SA) at the University of Pau & Pays Adour (UPPA) in Anglet, France. The envisioned starting date is 1 September 2017, and the maximum duration is 3 years. The position includes full social security coverage and a monthly gross salary of 1870€ before taxes, which include extra gratification for teaching duties (32 hours per year).

Candidate's profile

Fellowships are opened to highly qualified graduates from any field of Energy and Environment, or from a closely related discipline. We wish to attract candidates who are noticeable by their scientific excellence to whom we will offer scientific challenges that meet their expectations.

Procedure

Eligibility

- Citizens of all nationalities are eligible to apply.
- Entrance requirements: candidates must hold a Master's degree, or equivalent degree, with outstanding records.
- English language requirements: applicants whose first language is not French or English are usually required to provide proofs of proficiency of the required language skills.
- Required competencies: Applicants are expected to show outstanding commitment connected to the research priorities of the laboratories hosted by the consortium.

Selection

- The E2S selection board will manage the whole process of selection.
- Candidates must send their application as a single PDF file, written in English including the documents listed below before March 31, 2018 (midnight, Paris time), to:
phd.applications@e2s-uppa.eu
- *Before application*, the candidates should contact the G2MP group leader by email ([david.gregoire\[at\]univ-pau.fr](mailto:david.gregoire[at]univ-pau.fr)) indicating for which PhD opening position they want to apply. The corresponding project will then be discussed and possibly reshaped to fit the candidate expectations and competences.
- Applicants supported by the G2MP group should then advertise it in their motivation letter and present briefly the PhD project they would like to join.
- Selected candidates will be invited to defend their PhD project in front of the E2S selection board.

Criteria of selection of the candidate

- The candidate's motivation, scientific maturity and curiosity
- Candidate's marks and rankings at the Master's level of their academic cursus
- The adequacy between the research project and his/her skills
- Communication skills in written and spoken English
- Ability to work independently and to take responsibility for the progress and the quality of the project

Required application documents (single pdf file)

- Cover and motivation letter - 1-3 pages where you introduce yourself and present your qualifications and achievements, and emphasis why you want to join the G2MP group and what is the future PhD project you are interested in.
- Curriculum vitae
- Copies of certificates of any academic degrees and marks reports during their master studies; for candidates with a Master's degree in progress during the 2017-2018 academic year, please join marks and rankings corresponding to the first semester of the M2.
- Copies of certificates of French and/or English languages skills (for non French or English speaking applicants)
- Two letters of recommendation.