

Postdoctoral position at the University of Rennes

“ Reactive mixing in porous media with geoelectrical sensing”

We offer an **18 month postdoctoral fellowship** at the Geosciences Department of the University of Rennes, funded by the CEFIPRA/IFCPAR (Indo-French Centre for the Promotion of Advanced Research) in collaboration with IIT Gandhinagar in India. The duration of the fellowship may be extended later to up to 3 years, depending on the availability of funds and performance of the fellow.

Host institution: Department of Geosciences (GR), University of Rennes

Supervision: Prof. Yves Méheust (GR) and Tanguy Le Borgne (GR)

Collaboration: Prof. Uddipta Ghosh (IIT Gandhinagar)

Project description:

The project addresses reaction fronts inside porous media, using analog (milifluidic) experiments. We plan to use optical measurements to characterize reactive transport processes between an injected fluid and the fluid that resides in the porous medium, and to simultaneously perform electrical measurements (conductivity and/or complex impedance) in order to infer how geoelectrical signals correlate to the reactive transport processes.

Applicant profile:

We welcome applicants with a PhD in engineering (mechanical/chemical/civil) or natural sciences (earth sciences, soil sciences, or physics). Some experience with table-top flow experiments is required; experience with micromodel and/or microfluidics experiments would be a big advantage. Good knowledge of fluid mechanics and transport processes, as well as some experience with the use of Matlab or Python to treat data, will be appreciated. The ability for interdisciplinary work and good organizational skills are required.

Work conditions:

We offer a highly motivating environment within [TERA](#) team of GR, and all the necessary equipment and lab space, as well as a comfortable salary depending on the fellow's experience, including social security benefits according to the French laws. The city of Rennes is renown in France and Europe for its quality of life.

The University of Rennes advocates gender equality. Women are therefore strongly encouraged to apply. The work language will be either English or French, depending on the fellow's preferred language.

Contact:

Application should be addressed electronically to Prof. Yves Méheust (yves.meheust@univ-rennes.fr) and Prof. Uddipta Ghosh (uddipta.ghosh@iitgn.ac.in). The application should include, besides a CV and a publication list, a short statement of motivation.

Start date:

As early as possible, but no later than Feb. 1st, 2026.

Application deadline:

December 19th, 2025.