

Master II internship or Master I/Master II break Mineral processing/Process engineering

Modeling of hydrometallurgical operations: solvent extraction

CASPEO develops and distributes the USIM PAC software, a static process simulator for the design and optimization of mineral processing and hydrometallurgical plants. Hydrometallurgical operations are fundamental to the production of critical metals for the energy transition such as copper and REE. USIM PAC integrates several models to simulate the most common hydrometallurgical operations, such as leaching and solvent extraction. It is important to have models that can also be used to size the industrial equipment.

CASPEO is offering a 6-month internship, the aim of which will be to contribute to the improvement of existing solvent extraction models, as well as to the development of new models for equipment sizing, which can eventually be integrated into the USIM PAC process simulator.

The main stages of the internship will be:

- Literature review and synthesis of the state-of-the-art in solvent extraction modeling.
- Evaluation and proposals for improvement of existing unit operation models, and contribution to their development in FORTRAN.
- Development of new models, in particular integrating the mixer-settler sizing.

In addition to these R&D operations, if the opportunity arises, the successful candidate could participate in CASPEO's commercial projects linked to the modeling and simulation of hydrometallurgical processes.

This internship will require the following qualities: curiosity, ability to synthesize, basic knowledge of mineral processing and mineralogy, interest for R&D, mathematical modeling and computer programming knowledge, good writing skills, some creativity. English is a must. Work will be carried out on CASPEO's premises in Orleans, France. The internship may start in February 2024 or later, depending on the student's schedule.

Monthly wage: 1200 €

Contact: recrut@caspeo.net