

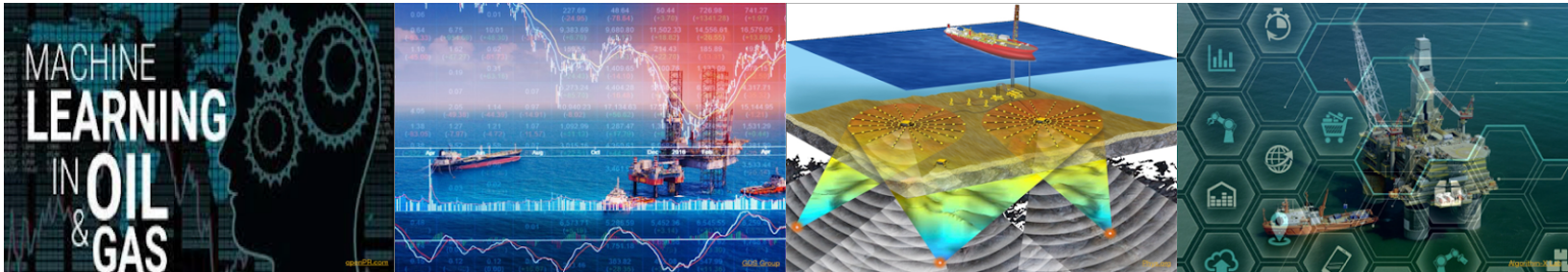
Post-doctoral Fellowship in **Petroleum Engineering**



We are **seeking candidates** for post-doctoral fellowship positions for up to 4 years to work at the Center for Petroleum Studies (CEPETRO) (<https://www.cepetro.unicamp.br>) and at the Reasoning for Complex Data (Machine Learning, Lab.) at the University of Campinas, Unicamp (www.unicamp.br/index.php/english), Campinas, SP, Brazil.

These positions are part of a partnership between the university and private companies in the oil and gas field. The project, entitled *Machine-Learning development for Analysis of Complex Production data in a Pre-Salt carbonate field*, aims at designing, developing and combining new machine learning techniques to support the pre-salt production fields. The envisioned background of the candidate is in **Petroleum Engineering or related fields**.

In this project, we focus on tackling heterogeneous data from oil and gas production in order to find possible flaws and to improve wells, reservoir and facility management towards reaching higher better recovery factors. One branch of the project shall investigate and understand the data gathered from a set of sensors and different sources and thus establishing relationships with reservoir lifetime phases. In this vein, this research project focuses on understanding different pieces of information associated with an object of interest and finding their temporal and spatial relations. Another branch of research focuses on seeking a transformed and unified feature space (manifold), allowing machine learning techniques to highlight relevant information from heterogeneous sources. The goal is not only to pinpoint abnormal behavior but also to support the solution identification and to explore unseen opportunities for production improvements.



The Positions

These fellowship positions require research and development in reservoir simulation and reservoir engineering, in collaboration with graduate students and partners. The research work concentrates in providing a technical support to understand the data and results coming from three main fronts: (1) data acquisition, manipulation, cleaning and data exploration in general; (2) design and development approaches to project and transform the acquired data into more meaningful manifolds; and (3) data visualization, content understanding and inference.

It is desirable that the candidates demonstrate domain knowledge in reservoir simulation, model based decision analysis, and data-driven analysis. However, candidates with good mathematical background in any of the two areas and motivation to learn the others are equally welcomed.

Each post-doctoral fellowship includes a monthly stipend of R\$ 7,373.10 (about USD 2,000 and EU\$ 1,800) adjusted according to Fapesp values, and access to the health-care system of Unicamp.

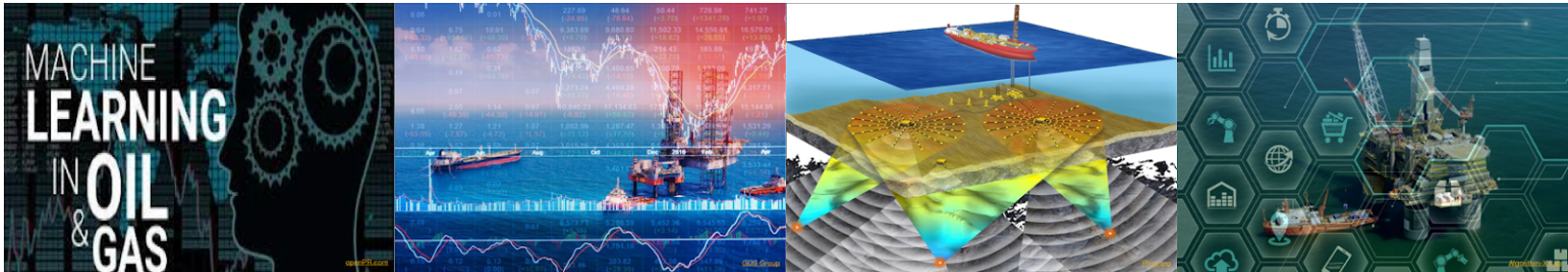
How to Apply

Interested candidates should fill the [online application form](#) below adding the listed documents.

1. A **motivation letter** for the application;
2. A **recommendation letter** from a previous supervisor;
3. **Curriculum vitae** with a list of publications, education background, research track-record and experience, and copy of diplomas/degree certificate(s).



Deadline:
August 31th, 2019



Additional Information

Eligibility Criteria Ph.D. in Geological, Petroleum Engineering or related areas. In case you have any doubt about a possible related area, drop an email to Prof. Denis Schiozer (denis@cepetro.unicamp.br), Alessandra Davolio (davolio@cepetro.unicamp.br) or Prof. Anderson Rocha (anderson@unicamp.br).

Selection process It will be based on the motivation letter for the application, recommendation letter from a previous supervisor, curriculum vitae with a list of publications, education and experience, and copy of diplomas/degree certificate(s). An interview with the finalists shall take place via Telecom.

Information About Campinas

- + Campinas, the most surprising city of Brazil https://youtu.be/nool_9y02vE
- + University of Campinas (Unicamp) https://en.wikipedia.org/wiki/University_of_Campinas

Location

