Opportunities at the Artificial Lift and Flow Assurance Research Group - ALFA

The **Artificial Lift and Flow Assurance Research Group (ALFA)** is pleased to announce a call for applications for a postdoctoral fellowship funded by **PRIO**, focusing on *Hybrid Data and Model Systems for Monitoring Offshore Oil & Gas Wells*.

Current Fellowship Opportunity

Code	Supervisor	Research Theme	Requirements
PN_PD_1	Prof. Marcelo Souza de Castro (FEM/UNICAMP)	Virtual Sensors Applied to Oil Production Monitoring	Ph.D. in Mechanical, Electrical, Petroleum, Chemical, or Control/Automation Engineering, Applied Mathematics, or related fields.

Desired Candidate Profile

We are seeking candidates with a Ph.D. and expertise in **at least one** of the following areas:

- **Artificial Intelligence (AI)**: Expertise in scientific machine learning, physics-informed neural networks, or data-driven modeling.

- **Multiphase Flow**: Experience in modeling, simulation, or experimental analysis of multiphase systems.

Desired Skills and Experience

Candidates with the following skills and experience will be given preference:

- Proficiency in **Python** programming.

- Familiarity with machine learning frameworks such as **PyTorch**, **JAX**, or **TensorFlow**.

- Strong analytical and problem-solving skills, with a proven ability to tackle complex research challenges.

- Knowledge of virtual sensors and data-driven systems in oil and gas applications.

Fellowship Requirements

The fellowship **requires** the following:

- **Language Proficiency**: Demonstrated advanced level of English.

- **Residency Requirement**: Full-time dedication and on-site research at UNICAMP.

Duration and Benefits

- **Duration**: The fellowship is initially for 12 months, with the possibility of a 12-month extension based on performance and project requirements.

- **Stipend**: A competitive monthly stipend of **R$ 12,000.00**.

- **Healthcare Benefits**: Access to UNICAMP's health-care system.

Application Process

Applicants must submit the following documents via email to **William Monte Verde** (wmv@unicamp.br) later than **30th April**. Please include the vacancy code (**PN_PD_1**) in the subject line.
   The required documents are:

1. **Resume**, including full academic records and GPA.

2. **Motivation Letter** (in English), detailing your interest in the position, the research theme, and reasons for joining ALFA.

3. **Scientific Publications** and copies of your Master's and Ph.D. theses.

Shortlisted candidates will be invited for an interview after evaluating their documentation.

Additional Information

For more information about our research group and ongoing projects, please visit the ALFA Research Group website https://alfaresearch.org.br/.