Postdoctoral Development of measurement systems based on image analysis - REF.: 25PDR317
University of São Paulo

Job Title	Postdoctoral Development of measurement systems based on image analysis - REF.: 25PDR317
Department	Engineering https://sites.usp.br/rcgi/
Institution	University of São Paulo São Paulo, , Brazil
Date Posted	Mar. 28, 2025
Application Deadline	Apr. 15, 2025
Position Start Date	May 1, 2025
Job Categories	Post-Doc
Academic Field(s)	Engineering - Other
Job Website	https://sites.usp.br/rcgi/opportunities/
Apply Online Here	https://docs.google.com/forms/d/e/1FAIpQLSeTRWuw1b6jFfAu7mW4_DXsues8CSCv7ki7sxNq1m_pyBpLg/viewform
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Job Description	

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Research theme area:
Postdoctoral Opportunity in Hydrogen Production Reactors, Advanced Image Analysis, Experimental Multiphase Flow, and Particle Image Velocimetry.

Abstract:
The candidate will collaborate with researchers from the project 56 FAPESP Research Centre for Greenhouse Gas Innovation of POLI-USP at the University of São Paulo. Summary of the program and projects can be found at the RCGI website (https://sites.usp.br/rcgi/).
The selected candidate will employ machine learning to perform flow analysis with a focus on noise removal, construction of neural networks and unsupervised methods. The candidate must work with experimental and numerical source data.

Description:
The applicant will contribute in line with the main objectives of the project:
1. Use and/or develop image analysis approaches to study multiphase flows in hydrogen production through electrochemical reactors.
2. Work with flows obtained experimentally and synthetic image analysis.
3. Understand experimental and numerical methods related to fluid mechanics.
4. Collaborate closely with a multidisciplinary team of researchers to integrate their studies across diverse areas.
5. Being able to perform experiments with optical techniques such as PIV.

Requirements to fill the position:
This project is suitable for a highly motivated candidate and requires programming skills and knowledge on numerical methods. The candidate must have a PhD degree in engineering, computing, mathematics, physics, or geophysics. Knowledge of English is required. Experience in the development of large-scale numerical methods and high-performance computing is highly desired.

INFORMATION ABOUT FELLOWSHIP:
This Postdoc Fellowship is funded by FAPESP. The fellowship will cover a standard maintenance stipend per month for PD (amount available at https://fapesp.br/valores/bolsasnopais).

MORE INFORMATION:
https://sites.usp.br/rcgi/opportunities/
Position: **Post-Doctoral Fellowship REF.: 25PDR317**

Access here AND APPLICATION AT REF**Post-Doctoral REF.: 25PDR317**

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Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact RCGI
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