Research Centre for Greenhouse Gas Innovation

Lead institution: RCGI	
Supervisor name: Sérgio L. Avila	**Department: PPGEEL/Poli**
Recipient: https://www.rcgi.poli.usp.br/opportunities/ **Ref: 24MSc279 – Master Scholarship** **Deadline for submission: May 31th, 2024**	**Type:** Master degree **Period: (hours/week)** 20 **Number of months:** 24 **Intended beginning date: July / 2024**

Project title: (Portuguese and English)

Desenvolvimento de sistema computacional de baixo custo (conceito IoT) dedicado ao monitoramento de aerogeradores

Development of a low-cost computer system (hardware and software in IoT concept) dedicated to monitoring wind turbines ("MitDev")

Research theme area: **(Portuguese and English)**

Prognóstico de comportamento de máquinas rotativas

Internet of ThingsBehaviour prediction of rotating machines

Abstract (Portuguese and English)

O candidato irá colaborar com os pesquisadores do projeto MITDEV, o qual faz parte do programa INNOVAPOWER do Centro de Pesquisa para a Inovação de Gases de Efeito Estufa da POLI-USP na Universidade de São Paulo. Resumo do programa e os projetos podem ser encontrados no site da RCGI (https://sites.usp.br/rcgi/).
O aluno irá participar do desenvolvimento de proposta conceito de IoT dedicada ao monitoramento de aerogeradores.

The candidate will collaborate with researchers from the project MITDEV of the INNOVAPOWER program from 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 student will participate in the development of an IoT concept proposal dedicated to monitoring wind turbines.

Description (Portuguese and English)

O candidato contribuirá alinhado aos principais objetivos do projeto:

1. Entender o comprometimento de falhas elétricas e/ou mecânicas de aerogeradores.
2. Desenvolver algoritmos e hardware capazes de identificar essas falhas.

The applicant will contribute in line with the main objectives of the project:

Research Centre for Greenhouse Gas Innovation

1. Understand the compromise of electrical and/or mechanical failures of wind turbines.
2. Develop algorithms and hardware that identify these failures.

Requirements to fill the position. (Ex: specific experience, minimum or maximum years after concluding the course) (Portuguese and English)

Este projeto é adequado para um candidato altamente motivado e requer habilidades de trabalho em equipe, experiência em desenvolvimento de modelos computacionais e proficiência em inglês são necessárias.

- O candidato deve ser graduado em Engenharias. Experiência com processamento embarcado, hardware de baixo custo, IoT, edge computing, python, I.A. e máquina rotativas são diferenciais no processo de seleção.

This project is suitable for a highly motivated candidate and requires teamwork skills, computational model development experience and English proficiency are required.

- The candidate must have a degree in Engineering. Experience with embedded systems, low cost hardware, IoT, edge computing, python, A.I. and rotating machines are differentiators in the selection process.

Funding Notes: This MSc scholarship is funded by FUSP / TotalEnergies. The scholarship will cover a standard maintenance stipend of R$ 3.500,00 per month.

Work place: RCGI - InnovaPower, Escola Politécnica – Cidade Universitária Butantã – São Paulo/SP.

Documents/Information to be Sent:
Ref: 24MSc279

1) Fill-in the application form: https://docs.google.com/forms/d/e/1FAIpQLSfV4KkheEQeMJKiDnkVkOQiDm5pvKU28bFJR5uNhYpjgU0Dhw/viewform

Deadline: May 31th, 2024

In case you have any question, please write to rcgi.opportunities@usp.br