UNIVERSITY OF SÃO PAULO
LUIZ DE QUEIROZ COLLEGE OF AGRICULTURE

DEPARTAMENT OF SOIL SCIENCE
Pádua Dias Av., 11, Piracicaba
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PO BOX 09 | Cep 13416-900

Postdoctoral position: spatial-temporal soil organic carbon mapping

Piracicaba, 25 August 2020

– Application Deadline: 15th of September 2021;
– Possible start date: October/November 2021;
– Duration: 1 year;
– Job location: Piracicaba, São Paulo, Brazil;
– Fellowship: monthly salary is R$ 4,300.00-;
– Job type: Post-doctoral researcher;
– Mode of work: <ins>in-person</ins> (not remote);
– Fields: pedometrics, soil spectroscopy, remote sensing, predictive modeling, soil organic carbon, data Science;
– Employer: Geotechnology in Soil Science (GeoCiS), ESALQ/USP (https://esalqgeocis.wixsite.com/english);

Job description

GeoCiS is a research group coordinated by Professor José Alexandre Melo Demattê (https://jamdemat.wixsite.com/dematte) from the Department of Soil Science at ESALQ/USP, Brazil (http://www.solos.esalq.usp.br/). The group aims to perform research in the areas of Soil Science using geotechnologies such as proximal and remote sensors, machine learning and could computing for understanding the soil interactions, soil mapping and land use planning. Other areas of interest are fertility, chemistry, mapping, erosion, conservation, mineralogy, physics and biology. Therefore, GeoCiS presents a multi and inter-disciplinary environment, working together with professionals from different areas and institutions.

GeoCiS is looking for a Post-doctoral researcher in the field of proximal and remote soil sensing, with a proven experience of modelling soil spectral data, harmonizing and managing laboratory soil observations, estimating soil organic carbon using combination of remote sensing and soil spectroscopy, and has experience in programming language as R and/or Python and JavaScript (Google Earth Engine). We especially welcome candidates with interest in developing and implementing novel modeling techniques that help bridge the gaps between field-based proximal sensing, and satellite-based remote sensing of soil. The candidate would work for GeoCiS on current project about **"spatial-temporal soil organic carbon mapping in Brazil"**.

The candidate would spend 40 hours per week in the project, and also writing research publications, meeting with senior researchers (weekly).

Profile of the candidate (minimum requirements):

• PhD degree in the field of soil science, remote sensing, environmental sciences and/or pedometrics (PhD thesis closely focusing on soil organic carbon spectral modelling and/or digital soil mapping would be considered an advantage),

- Advanced knowledge of programming languages <u>R and/or Python and JavaScript (GEE)</u>, and knowledge with geospatial data and processing. If you have a code repository, please share the link address in the job application form (see next section).
- Sufficient knowledge of remote sensing with applications to soil attributes mapping and monitoring, specially soil organic carbon.
- Fluency in Portuguese and/or English,
- Good scientific writing skills and high motivation to publish results in prestigious peer reviewed journals.

Information and Application

Questions regarding this position can be directed to Professor J.A.M. Demattê, email: jamdemat@usp.br

Applications must be made via this link https://forms.gle/NHLTAoYWSxQwFRe4A, including:

1. Updated full curriculum vitae (CV);
2. PhD certificate;
3. Two recommendation letters from researchers with outstanding experience.
   All documents must be **merged into one PDF file**, named as "YourName_Country" and then upload.