

College of Sciences | Department of Geological Sciences

04/22/2020

Position Title: PhD Student

Primary Location: University of Texas at San Antonio

Subject Area: Soil physics, Soil Chemistry, Water-Rock Interaction, Phosphates and Nutrients in Soils and Interaction

Application Deadline: May 31, 2020

Possible Position Start Date: August 2020 or January 01, 2021

Applications are invited for a 3 year-paid fulltime PhD student at the Department of Geological Sciences at University of Texas at San Antonio (under College of Engineering's Environmental Science and Engineering PhD Program: Website: <https://graduateschool.utsa.edu/programs/environmental-science-and-engineering-ph.d/index.html>). The successful candidate will explore soil-water interactions, measuring soil nutrients in field, deploying graphene based sensors in field among other responsibilities. The candidate will work in an interdisciplinary setting at UTSA, under Dr Saugata Datta and could collaborate with five other research groups in this international project: Prof. Suprem Das's group at Kansas State University, Prof. Biswajit Ray's group at University of Alabama at Huntsville, Prof. Adrien Chauvet's group at University of Sheffield in UK, Prof. Natalia Martsinovich at University of Sheffield in UK, and Prof. Duncan Cameron at University of Sheffield in UK.

It is critically important that the candidate has a strong leadership and active communication qualities to conduct the research by designing and critically analyzing the results and advocating for achieving the project goals. The candidate should also have excellent writing skills of technical reports and journal papers. An MSc in geological sciences/earth sciences, or relevant masters in engineering fields on relevant topic(s) and/or additional experiences is necessary.

The award of this funding is through a recently funded NSF proposal: "SitS NSF-UKRI: Real-time and Continuous Monitoring of Phosphates in the Soil with Graphene-Based Printed Sensor Arrays". This award was made through the "Signals in the Soil (SitS)" solicitation, a collaborative partnership between the National Science Foundation, the United States Department of Agriculture National Institute of Food and Agriculture (USDA NIFA) and the following United Kingdom Research and Innovation (UKRI) research councils: 1) The Natural Environment Research Council (NERC), 2) the Biotechnology and Biological Sciences Research Council (BBSRC), 3) the Engineering and Physical Sciences Research Council (EPSRC), and the Science and Technology Facilities Council (STFC).

Application Materials:

If interested and to follow up on the details of this project and future roles of the PhD student, please send your primary interest letter or email, with one page research philosophy, and detailed curriculum vitae to Prof. Saugata Datta, at UTSA at [saugata.datta@utsa.edu](mailto:saugata.datta@utsa.edu). After relevant discussion, you are welcome to apply through the above link.