16/10/2020

Dear all

This week we have a PhD opportunity on modelling soil water from the University of Southern Queensland.

If you would like something included in this digest please email it to office@mssanz.org.au

kind regards, Karen

PhD Title: Uncertainty in predicting soil water and plant available water at high-resolution scales

Summary
Soil moisture and plant available soil water (PAW) is a foundational data to predict crop production and inform tactical and strategic decisions on farm management and system design. There are several methods to monitor or estimate soil water and PAW e.g. sensors, proximal sensing, remote sensing, modelling (process based & artificial intelligent) across field and soil profile, each with their particular limitations and uncertainties. This PhD research will explore issues for uncertainty analysis of soil moisture and PAW at sub-paddock scale and implications of uncertainty from different observations and modelling approach.

Location: Toowoomba campus, University of Southern Queensland

Salary: AUD $30,000 per annum, tax free

Eligibility

- An honours degree with First Class Honours or a Masters degree
- be native English speakers and/or meet USQ's English Language Requirements.

Selection Criteria:

- Background in soil physics, hydrology, engineering or natural science with a strong background in statistical analysis
- Experience with modelling (including model calibration and uncertainty analysis) and machine learning is highly preferred
- Familiar with at least one programing/scripting code e.g. R, python, C#
- Excellent communication skills and ability to work in a team

Closing Date
Applications will remain open until filled for Semesters 1 or 2 in 2021.

If the above eligibility criteria are met, applicants will be required to send a cover letter and a targeted CV by email to Dr Afshin Ghahramani (afshin.ghahramani@usq.edu.au). Relevant qualifications, skills and areas of expertise will be provided in the targeted CV.