Opportunity Title: USDA-ARS Developing Remote Sensing Technology for Water Management Fellowship
Opportunity Reference Code: USDA-ARS-2021-0009

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-2021-0009

How to Apply

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. All transcripts must be in English or include an official English translation. Click here for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations

All documents must be in English or include an official English translation.

Application Deadline 3/26/2021 3:00:00 PM Eastern Time Zone

Description

***Applications may be reviewed on a rolling-basis and this posting could close before the deadline.**

ARS Office/Lab and Location: Two research opportunities are currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), hosted by either the Sustainable Water Management Research Unit or the Crop Production Systems Research Unit located in Stoneville, Mississippi.

Research Project: This research project focuses on developing and documenting novel remote sensing technology for water management to improve water use efficiency in agriculture. Under the guidance of a mentor, the participant will collaborate with and learn from a team of scientists in planning and conducting research, analyzing statistical data, and reporting research results.

Participant activities will include:

1. Developing ET (evapotranspiration) models for regional hydrological applications, and design algorithms to determine crop water stress for irrigation scheduling by using remote sensing data
2. Developing and evaluating remote sensing methods for variable rate irrigation and water resource management
3. Developing improved methodology for effective remote sensing image acquisition and processing

Learning Objectives: The participant will have the opportunity to gain the advanced knowledge and skills in development and application of remote sensing technology for agricultural water management.

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Mentor(s): The mentor for this opportunity is Matt Moore (matt.moore@usda.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: Spring 2021. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year, but may be renewed upon recommendation of ARS and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience.

Citizenship Requirements: This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the Guidelines for Non-U.S. Citizens Details page of the program website for information about the valid immigration statuses that are acceptable for program participation.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and ARS. Participants do not become employees of USDA, ARS, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

Questions: Please visit our Program Website. After reading, if you have additional questions about the application process please email USDA-ARS@orau.org and include the reference code for this opportunity.

Qualifications

The qualified candidate should have received a doctoral degree in one of the relevant fields.

Skills and/or experience in remote sensing data processing and crop water stress detection would be considered favorable.

Eligibility Requirements

- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (1 👁)
  - **Earth and Geosciences** (1 👁)
  - **Engineering** (5 👁)
  - **Environmental and Marine Sciences** (4 👁)
  - **Life Health and Medical Sciences** (4 👁)
  - **Physics** (1 👁)