# MS/PhD in Biological and Agricultural Engineering (Precision Irrigation)

**Position Description:**

The Department of Biological and Agricultural Engineering (BAEN) at Texas A&M University (TAMU) is accepting applications for multiple Graduate Assistant Research (GAR) positions for M.S. and Ph.D. programs beginning in Fall 2025 or Spring 2026. These positions focus on irrigation and nitrogen management, water conservation, and remote sensing, with an emphasis on applying AI/ML techniques to enhance water management. Selected candidates will integrate advanced technologies for precision irrigation and nitrogen management, conduct both laboratory and field experiments, analyze soil-water dynamics, collect, process, and interpret datasets from field experiments using AI/ML tools, and develop innovative strategies and decision-support tools for large-scale precision irrigation. Students will contribute to an interdisciplinary research initiative aimed at optimizing irrigation strategies for diverse cropping systems, supporting sustainable and efficient water management practices.

**Minimum Qualifications:**

* Bachelor’s degree in Agricultural Engineering, Civil Engineering, Soil and Water Engineering, Hydrology, or related disciplines. Ph.D. applicants are required to have an M.S. degree (thesis option) in the mentioned or relevant fields.
* **A valid driver's license and U.S. citizenship is required.**
* Interest and/or experience in soil, water, and plant dynamics, with the ability to utilize sensors, satellite imagery, and AI/ML technologies.
* Ability to work effectively with diverse individuals and teams.
* Strong oral and written communication skills.
* Non-English credentials must include a TOEFL score of 79 iBT or an IELTS score of 6.5 or higher (GRE may be waived).

**Preferred Qualifications:**

* Strong understanding of soil, plant, and water dynamics.
* Knowledge of integrating sensor technologies to measure key parameters.
* Ability to analyze data and develop decision support tools and systems.
* Experience leading diverse undergraduate research teams.

**How to Apply:**

Interested applicants should contact Dr. Uday Vaddevolu ([uday.vaddevolu@ag.tamu.edu](mailto:uday.vaddevolu@ag.tamu.edu)) or Dr. Michael Buser ([michael.buser@ag.tamu.edu](mailto:michael.buser@ag.tamu.edu)). A letter of interest with experience highlights, CV, and academic transcripts should be submitted by interested applicants.