





Faculty Member Contact Information

Name	Yadong Wang
Contact Info	
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Campus Box	1801
Department	Electrical and Computer Engineering

1 Funded, 1 Unfunded URCA Assistant

	This position is ONLY open to students who have declared a major in this discipline.	M
	This project deals with social justice issues.	
	This project deals with sustainability (green) issues.	
	This project deals with human health and wellness issues.	
	This project deals with community outreach.	
	This mentor's project is interdisciplinary in nature.	I

Are you willing to work with students from outside of your discipline? If yes, which other disciplines?

No

How many hours per week will your student(s) be required to work in this position?
(Minimum is 6 hours per week; typical is 9)

9

Will it be possible for your student(s) to earn course credit?

No

Location of research/creative activities:

Brief description of the nature of the research/creative activity?

We are going to develop novel radar quantitative precipitation estimation (QPE) algorithm using dual-polarization radar with artificial intelligence (AI) methods. Under the collaboration between SIUE and Taiwan Central Weather Administration (CWA), researchers and scientists are improving the performance of Taiwan current multiple radar multiple sensor (MRMS) system. An optimal QPE algorithm plays a critical role in this project. We will apply novel AI schemes for such goal, which already show their significant potentials in related fields.

Brief description of student responsibilities?

Students will deeply involved in this project. Their responsibilities are helping collecting and processing data from radar, gauge, and disdrometers. Students are also responsible for algorithm development, testing and validation.

URCA Assistant positions are designed to provide students with *research or creative activities* experience. As such, there should be measurable, appropriate outcome goals. What exactly should your student(s) have learned by the end of this experience?

Yes

Requirements of Students

If the position(s) require students to be available at certain times each week (as opposed to them being able to set their own hours) please indicate all required days and times:

No. the working schedule is pretty flexible.

If the location of the research/creative activities involves off campus work, must students provide their own transportation?

Must students have taken any prerequisite classes? Please list classes and preferred grades:

ECE351, ECE447

Other requirements or notes to applicants:

Must be good at at least one of following computer languages:

Matlab, Python, C/C++