

Picture: Integration of smartphones into low-cost drone for ubiquitous sensing of environment

IMPRESSLAB 2021

> impress.ece.msstate.edu

GRADUATE RESEARCH ASSISTANT (GRA) SCHOLARSHIP

Two Positions Available

Summary

InforMation PRocessing and SenSing (IMPRESS) Laboratory provides an integrated and creative environment for undergraduate/graduate students to focus not only on analytical aspects of sensing systems but also provides opportunities for gaining hands-on field experience through its state-of-the-art facilities. GRA positions are fully funded by recent NASA and National Science Foundation (NSF) grants in the area of Microwave Remote Sensing, Machine Learning, Wireless Systems, and Spectrum Management.

Duties may include experience/interest in:

Position #1: Cyber Physical Systems and Sensing

- Autonomous Data Collection using Unmanned Aircraft Systems (UAS) and Unmanned Ground Vehicles (UGV),
- Smartphone Programming for Environmental Sensing,
- Information Retrieval from Small Satellites

Position #2: AI-Enabled Spectrum Coexistence

- Development of one-of-a-kind testbed for radio science and drone based active communication systems
- Novel RF front-ends, software-defined-radios (SDRs).
- Geospace science under the earth exploration-satellite service
- Wireless systems and networks.

LOCATION

Starkville,
Main Campus,
Mississippi,
United States

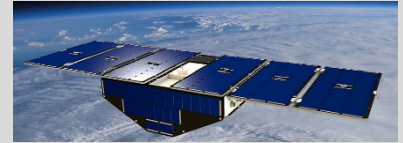
DATES

Deadline:

October 1, 2020
for **Spring 2021**

QUALIFICATIONS

BS or MS degrees in Electrical and Computer Engineering or Computer Science. Prior MS degree is preferred. **A minimum 3.30 GPA is required.**



Pictures: [Top] Artistic view of NASA's CYGNSS satellite, and [Bottom] droNE_Station (NEST) that serves to house, energize, and deploy the UAS-based sensing system conveniently across multiple testing areas. Subset of lab's UASs with sensor modalities



Pictures: [Top] The lab's custom-made UAS fleet. [Bottom] Field testing with customized UASs and unmanned ground vehicles for ground truth data collection

HOW TO APPLY

If interested, please **e-mail (1)** your resume, **(2)** course transcript, **(3)** what position(s) you are interested in, and **(4)** statement of purpose to kurum@ece.msstate.edu.

In your personal statement of the application make sure explain your motivations for the graduate school and why you would be a good fit for our lab and the position specifically. Please check other requirements at the Office of the Graduate School.

For more information contact lab co-director

Dr Mehmet Kurum

kurum@ece.msstate.edu +1 (240) 7164167



MISSISSIPPI STATE UNIVERSITY
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Sponsors



INFORMATION PROCESSING AND SENSING