



UCF

# FACULTY RESEARCH TALKS

LISTEN. LEARN. COLLABORATE.

Zoom talk | Friday, Oct. 21, 2022 | Noon to 1 p.m.

## INDUSTRY PARTNER SPOTLIGHT:

*Galois, Inc. and Spectronn, Inc.*



PRESENTER 1:

**R.**

**CHANDRAMOULI**

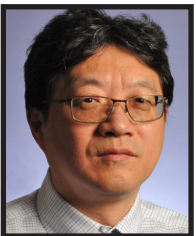
Principal Scientist,  
Galois, Inc., and  
Founder/CEO,  
Spectronn, Inc.

### Hybrid Edge Computing in Space: Modeling, Simulations and Applications

Hybrid edge computing in space deals with moving data and computations between space vehicles and terrestrial nodes such as 5G base station or cloud for low-latency and resilient space domain awareness. Dr. Chandramouli will provide a high-level overview of the relevant networking and computing research challenges, in addition to opportunities for innovations in modeling and simulations. He will also discuss applications impacted by hybrid edge computing in space, including AI for on-orbit satellite health monitoring.

Dr. Chandramouli's (Mouli) research spans AI/ML, cognitive wireless networking and edge computing. Research projects in these areas are supported by the DoD, NIJ, NSF, DHS, NIST and commercial customers. He was a recipient of the NSF CAREER award, New Jersey Inventor Hall of Fame Innovator Award, and received recognitions from NIST and DoD for technical innovations.

Dr. Mouli was an IEEE COMSOC Distinguished Lecturer, Office of Science and Technology Policy invited speaker, a keynote speaker at major IEEE conferences, and editor of *IEEE Journal on Selected Areas in Communications – Cognitive Radio Series*. He is also associate editor of *IEEE Transactions of Circuits and Systems for Video Technology*, founding chair of the IEEE COMSOC Technical Committee on Cognitive Networks, a member of the IEEE COMSOC Standards Board, and serves on the advisory board of several journals.



PRESENTER 2:

**JUN WANG**

Professor,  
Electrical and  
Computer  
Engineering

### High-Performance Computing for Secure Non-Volatile Memory and Edge Learning

In this talk, Dr. Wang will introduce two research projects carried out by his Computer Architecture and Storage Systems (CASS) research group. First, he will share how CASS is developing new fine-granularity copy-on-write operations for secure non-volatile memories. Second, Dr. Wang will share how he leads his team to employ a full-stack, cross-layer method to accelerate the deployment of AI learning applications on various edged devices.

Dr. Wang is director of the CASS Laboratory at UCF. He has conducted extensive research in the areas of computer systems and data-intensive computing. His specific research interests include massive storage and file systems in a local, distributed and parallel systems environment. Dr. Wang is a Fellow of IEEE. He received the NSF CAREER award in 2009 and the Department of Energy Early Career Principal Investigator Award in 2005. He has authored more than 150 publications in premier journals and conferences.