



Cyber-Physical Radio week 2025 is a series of co-located industry events and IEEE conferences in cutting-edge topics on RFID, digital twins, additively manufactured electronics, and advanced radio.

A low, flat-fee registration entitles attendees to hop between all events and sessions.

Cyber-Physical Radio Week 2025

22-24 April 2025
GT Hotel and Conference Center
Atlanta (Midtown), GA

Events

- IEEE Conferences
- CyPhyRa Industry Session
- Social Events/Networking
- Industry Exhibitions
- GT ECE Undergrad Research Symposium
- GT Lab Tours
- Tutorials

Special Session: Metamaterials, FSS, and HIS for Improvements to RFID Performance and Privacy

call for Papers/Participation, deadline: 13 January 2025

This special session focuses on enhancing RFID performance and privacy through the application of metamaterials, frequency selective surfaces (FSS), high impedance surfaces (HIS) and other periodic structures. The focus is on exploring metamaterial technology to enhance security (for example, using FSS screens to reject unwanted spatial signals) and to enhance performance (for example, by beamforming or gain enhancement using metamaterials and HIS).

Topics of interest to RFID systems that include the application of FSSs, metamaterials, and HISs to perform:

Polarization Filtering
Frequency Filtering
Gain enhancement
Retroreflection
Beamsteering
Electrically small antenna design techniques

Electrically small lens technology
Novel manufacturing methods
Loss considerations in performance for RFIDs
Computational electromagnetics for modelling RFID+metamaterial systems
Multiscale communications and electromagnetics modelling
Human On-Body Simulation and Enhancements

Organizers

Dr. Joshua Roper, GTRI
Joshua.Roper@gtri.gatech.edu

Dr. Kitt Peterson, GTRI
kitt.peterson@gtri.gatech.edu

Metamaterials, FSS, and HIS
for Improvements to RFID
Performance & Privacy



Submit papers through the 2025.ieee-rfid.org author link.



Industry Forum & Exhibition



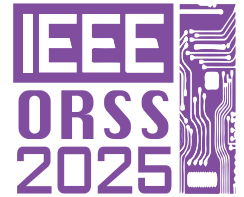
RFID Conference



Additively Manufactured
Electronic Systems



Digital Twins and
Parallel Intelligence



Opportunity Research
Scholars Symposium



2025.ieee-rfid.org



2025.ieee-ames.org



2025.ieee-dtpe.org



orss.ieee-rfid.org