

## Shaping the ISAC Future with RIS: From Control to Implementation

**Abstract:** Reconfigurable Intelligent Surfaces (RIS) are rapidly moving from concept to reality as enablers of Integrated Sensing and Communication (ISAC). Beyond strengthening communication links, RIS can support the creation of distributed, energy-efficient sensing infrastructures. This talk highlights how RIS can evolve from passive control elements to active components that enable environmental awareness, localization, and mapping. We will discuss key implementation challenges—such as coordinating multiple RIS units in dynamic environments and integrating sensing with communication—while outlining the opportunities these technologies bring for scalable and cost-effective industrial deployment.