



Special Session

Next-Generation RFID: Applications, Challenges, and Solutions

SESSION ORGANIZERS

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ABSTRACT

5G and 6G wireless standards seek to add trillions of new devices that will require ultra-low power wireless interfaces. The high energy efficiency of backscatter communication makes it an appealing technology to enable the seamless integration so many energy-constrained devices. Backscatter systems still face many challenges though that next generation RFID systems should address, for example in achieving long range operation in multipath environments, providing interoperability with existing wireless infrastructure, and enabling precise localization. This special session presents new research geared at overcoming these challenges for the next generation of RFID systems. The aim is to foster discussions about relevant innovations in backscatter, for example in integration with sensing modalities, readout systems, interoperability with existing wireless infrastructure, combined data and localization methods, and improved reliability in multipath environments.