

# Special Session on Wireless communications for the Internet of Things

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Péter Horváth is an associate professor of electrical engineering. He is focusing on the physical layer aspects of modern wireless communications including multi-antenna techniques, channel modelling, cognitive radios and RF exposure testing of wireless devices.

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Dr. Maroti is an associate professor of mathematics. He received the Bolyai Plaque from the Hungarian Academy of Sciences, and the Test of Time Award from the ACM in 2014. He is working and publishing in mathematics, theoretical computer science and in electrical engineering.

## Scope of the session

Today we see the rapid emergence of wireless communication solutions in different areas, such as machine-to-machine communications for the Internet of Things, wireless sensor networks, industrial sensor and control networks. More WPAN protocols compete with each other than ever, primarily in the unlicensed spectrum, with radically different physical layer waveforms and medium access designs. But also the cellular world places greater emphasis on low-latency, energy-efficient and reliable services in the emerging 5G standards, specifically designing waveforms that are better suited for such applications. The workshop will focus primarily on the PHY and MAC aspects of wireless machine-to-machine protocols that offer low latency, high reliability or large coverage for densely deployed networks.

*Prospective authors are invited to submit original and unpublished work on the following research topics related to this Special Session:*

- *Advanced modulation and coding schemes for IoT applications*
- *PHY/MAC solutions for high reliability/low latency requirements*
- *Energy efficient PHY/MAC designs*
- *V2X communication protocols*
- *PHY/MAC schemes for opportunistic spectrum access*
- *Information theoretic aspects*
- *Propagation, channel modeling and interference analysis*
- *Performance evaluation of wireless IoT technologies*
- *Integration of wireless power transfer and information transmission.*