ITG Fachgruppe „Angewandte Informationstheorie”

Program of the 37. Meeting, 05.05.2022

— Intelligent Reflecting Surfaces —

Virtual Meeting

9:00 – 9:05	Dirk Wübben, *Department of Communications Engineering, University of Bremen* **Welcome**

Session I

9:05 – 9:45	Robert Schober, *Lehrstuhl für Digitale Übertragung, FAU Erlangen-Nürnberg* **Intelligent Reflecting Surfaces: Physics-based Modeling and Scalable Optimization**
9:45 – 10:05	Friedemann Laue, *Lehrstuhl für Digitale Übertragung, FAU Erlangen-Nürnberg* **RIS Assisted Device Activity Detection**
10:05 – 10:25	Malte Schellmann, *Huawei European Research Center* **Capacity evaluation of IRS enhanced deployments for industrial IoT communication**
10:25 – 10:45	Hedieh Ajam, *Lehrstuhl für Digitale Übertragung, FAU Erlangen-Nürnberg* **Intelligent Reflecting Surface-assisted Free-space Optical Communications**
10:45 – 11:00	**Coffee break**

Session II

11:00 – 11:40	Aydin Sezgin, *Institute for Digital Communications Systems, RU Bochum* **Interference Management with RIS**
11:40 – 12:00	Simon Tewes, *Institute for Digital Communications Systems, RU Bochum* **Full-Duplex meets Reconfigurable Surfaces: RIS-assisted SIC for Full-Duplex Radios**
12:00 – 12:20	Jaime J. L. Quispe, *Fachgebiet Kommunikationstechnik, TU Darmstadt* **Beamforming and link activation methods for energy efficient IRS-aided wireless communications**
12:20 – 12:40	Dominik Semmler, *Lehrstuhl Methoden der Signalverarbeitung, TU München* **Linear Precoding in the IRS Assisted MIMO Broadcast Channel**
12:40 – 13:30	**Lunch break**

Session III

13:30 – 14:10	Thomas Zwick, *Institute of Radio Frequency Engineering and Electronics (IHE), Karlsruhe Institute of Technology (KIT)* **Practical Considerations for Intelligent Reflective Surfaces in Mobile Communication Systems**
14:10 – 14:30	Mehdi Gholami, *Institute for Digital Communications Systems, RU Bochum* **Time-Modulated Intelligent Reflecting Surfaces**

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14:30 – 14:50	Pin-Hsun Lin, *Institute for Communications Technology, TU Braunschweig* **Legitimate against Illegitimate IRSs on MISO Wiretap Channels**
14:50 – 15:10	Bashar Tahir, *Institute of Telecommunications, TU Wien* **Enabling Massive Connectivity via RIS-Assisted Code-Domain NOMA**
15:10 – 15:25	**Coffee break**

Session IV

15:25 – 16:05	Eduard Jorswieck, *Institute for Communications Technology, TU Braunschweig* **Reconfigurable Intelligent Surface Phase Hopping for Ultra-Reliable Communications**
16:05 – 16:25	Bile Peng, *Institute for Communications Technology, TU Braunschweig* **Reconfigurable Intelligent Surface Enabled Spatial Multiplexing with Fully Convolutional Network and WMMSE Precoder**
16:25 – 16:45	Christoph Lipps, *Deutsches Forschungszentrum für Künstliche Intelligenz (DFKI), Kaiserslautern* **Reconfigurable Intelligent Surfaces: A Security Perspective**
16:45 – 17:05	Chu Lin, Institute for Digital Communications Systems, RU Bochum **On the Impact of Oscillator Phase Noise in an IRS-assisted MISO TDD System**
17:05 –	**Closing**