27. VDE/ITG Fachtagung Mobilkommunikation

- 5G Lösungen und 6G Ausblick -

10. - 11. Mai 2023, Osnabrück

Programm:

Mittwoch, 10. Mai 2023

9:00 Registrierung

9:30 Begrüßung
Alexander Schmehmann, Vizepräsident der HS Osnabrück
Ralf Tönjes, Sprecher des Programmkomitees, HS Osnabrück

9:40 Key Note
Christian Wietfeld (TU Dortmund): Towards 6G: Opportunities and Challenges of future Multi-Dimensional Networking Solutions

10:20 Invited Talk
Gerald Kunzmann (Nokia): The 6G Future: Delivering new Levels of Customization, Resilience, and Privacy

10:40 Kaffeepause

11:10 Sitzung 1: Towards 6G Access Networks
Sitzungsleitung: Gerald Kunzmann (Nokia)

11:10 Niklas Bulk (UNI Bremen): Equidistant Power Allocation for a Service-based NOMA Scheme

11:30 Yorman Munoz (DFKI): Modular Intelligent Reconfigurable Surfaces: Towards and Application-Adaptive Implementation

11:50 Annika Tjabben (DFKI): Threat of Low-Cost Jammers: The Effects on Visible Light Communication Systems

12:10 Mittagspause und Demonstrationen

13:00 Key Note
Eckhard Grass (IHP): Joint Communication and Sensing (JCAS) for 6G Wireless Systems

13:40 Sitzung 2: Netzabdeckung
Sitzungsleitung: Ralf Tönjes (HS Osnabrück)

13:40 Cornelius Wolff (UNI Osnabrück): A New Approach on Estimating Germany's Mobile Broadband Coverage based on Crowdsourced Data

14:00 Jörg Schneider (BNetzA): A Regulators Perspective on Digital Twinning for Mobile Communications

14:20 Poster Session & Coffee: Spezielle Lösungen und neue Ansätze
Sai Charan Kusumapani (RPTU Kaiserslautern): Reusable 5G Campus Network Dataset: Configuration, Extraction, and Application
Taras Holoyad (BNetzA): ML-Driven Optimisation of Physical Layer Metrics in an Interweaving of ICT and Metaverse
Felix Kahmann (HS Osnabrück): Dynamic VLAN Tagging Approach for IoT Network Segmentation and ad-hoc Connectivity

15:00 Sitzung 3: Fahrzeugkommunikation
Sitzungsleitung: Christian Wietfeld (TU Dortmund)

15:00 Nick Turay (Ericsson): Development and Validation of a Testbed for AI/ML QoS Prediction Algorithm Evaluation

15:20 Jochen Stellwagen (Frankfurt Uni. of Applied Science): Hybrid V2X Communication for Safety-critical Applications

15:40 Alexandr Langolf (UNI Kiel): Handover Prediction for NSA 5G Systems in Maritime Environments using Machine Learning

16:00 Kaffeepause und Demonstrationen

16:30 Sitzung 4: Low Power Wide Area Networks (LPWAN)
Sitzungsleitung: Clemens Westerkamp (HS Osnabrück)
16:30 Tobias Tuchscherer (TU Chemnitz): Distributed Desynchronisation of Channel Access Attempts in large-scale wireless IoT Networks
16:50 Martin Böhm (HS Ostfalia): Sensor Networks for Forestry Applications operating with Limited Power Supply using LPWAN COTS Equipment
17:10 Thorsten Horstmann (Fraunhofer FKIE): Evaluation of LoRa in a Real-World Smart City: Selected Insights and Findings
17:30 Ende des 1. Tages

19:30 Abendveranstaltung: Gemeinsames Abendessen in der Brauereigaststätte Rampendahl

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Donnerstag, 11. Mai 2023

9:00 Key Note
Torsten Dudda (Ericsson): 6G – Connecting a Cyber-Physical World

9:40 Kaffeepause

10:10 Sitzung 5: 5G Private Networks
Sitzungsleitung: Ulrich Trick (Frankfurt Uni. of Applied Science)
10:10 Christian Schellenberger (RPTU Kaiserslautern): Leveraging 5G Private Networks, UAVs and Robots to Detect and Combat broad-leaved Dock (Rumex Obtusifolius) in Feed Production
10:30 Carolin Christoph (HS Osnabrück): Performance Evaluation of SDR-based 5G Networks
10:50 Fabian John (TH Lübeck): Two Industrial Reference Demonstrators for High Throughput and Low Latency in 5G Standalone Network Setups
11:10 Junaid Ansari (Ericsson): Empirical Study on the Impact of Arc Welding on 5G Performance

11:30 Kaffeepause

12:00 Sitzung 6: Towards 6G Networks
Sitzungsleitung: Torsten Dudda (Ericsson)
12:00 Nico Bayer: (Deutsche Telekom): E2E Service Assurance for 5G Network Slicing and Closed Loop Automation
12:20 Sergiy Melnyk (DFKI): 6G NeXt – Towards 6G Split Computing Network Applications: Use Cases and Architecture
12:40 Franc Pouhela (DFKI): A Context Management Architecture for Decoupled Acquisition and Distribution of Information in Next-Generation Mobile Networks

13:00 Mittagspause und Demonstrationen

13:50 Key Note
Torsten Musiol (MECSware): Drei Jahre 5G Campusnetze – und wie geht es weiter?

14:30 Kaffeepause und Demonstrationen

15:00 Sitzung 7: 6G Sustainability and Trust
Sitzungsleitung: Peter Roer (HS Osnabrück)
15:00 Matthias Rüb (DFKI): 6G and the Sustainability Aspect: How Surplus Renewable Energy Can Be Used for Distributed Learning Clusters in 6G Networks
15:20 Pascal Ahr (DFKI): Industry 4.0 Security Trust Anchors: Considering Supply Voltage Effects on SRAM-PUF Reliability
15:40 Benedict Veith (DFKI): Use-Case Analysis regarding Trust Relations in Dynamic Networks

16:00 Abschlussdiskussion
16:10 Ende der Veranstaltung