

29. VDE/ITG Fachtagung Mobilkommunikation

- 5G Lösungen und 6G Ausblick -

20. - 21. Mai 2025, Osnabrück

Programm:

Dienstag, 20. Mai 2025

9:00 Registrierung

9:30 Begrüßung

Bernd Lehmann, Vizepräsident der HS Osnabrück

Ralf Tönjes, Sprecher des Programmkomitees, HS Osnabrück

9:40 Key Note

Joachim Sachs (Ericsson): Differentiated Connectivity and Dependable Communication, Enablers in future Mobile Networks

10:20 Invited Talk

Martin Kasparick (Airpuls): Potentials and Challenges of Open Modular Private 5G Networks

10:50 Kaffeepause

11:20 Sitzung 1: Towards Beyond Cellular

Sitzungsleitung: Christian Mannweiler (Nokia)

11:20 Rami Khaldi (Frankfurt Uni. of Applied Science): DT-BAN Design from a Modelling Perspective: A Use Case-Driven Approach

11:40 Shama Noreen (RPTU Kaiserslautern): Mobility Management Enhancements in Non-Terrestrial Networks: A 3GPP Perspective

12:00 Dennis Buchberger (Uni Bremen): OpenLab "Beyond Cellular": First Results and Planned Scenarios

12:20 Mittagspause und Demonstrationen

13:20 Key Note

Thomas Kürner (TU Braunschweig): Terahertz Communication for ultra-high Data Rate Applications

14:00 Sitzung 2: Towards 6G

Sitzungsleitung: Joachim Sachs (Ericsson):

14:00 Parmida Geranmayeh (Humboldt Uni Berlin): Comparative Analysis of Optimization and Machine Learning Methods for Beamforming and Power Control in Urban Environment

14:20 Junaid Ansari (Ericsson): Reliability enhancements for mmW communication using IEEE 802.1CB

14:40 Kaffeepause und Demonstrationen

15:10 Sitzung 3: Physical Layer Security

Sitzungsleitung: Ralf Tönjes (HS Osnabrück)

15:10 Argianto Rahartomo (Ostfalia HAW): Security and Privacy in Spectrum Access for Private Local Networks- State of the Art and Practice

15:30 Wenqing Dai (DFKI): Enhancing Physical Layer Key Generation Leveraging Reconfigurable Intelligent Surfaces

15:50 Kaffeepause und Demonstrationen

16:20 Sitzung 4: Future Networks

Sitzungsleitung: Ulrich Trick (Frankfurt Uni. of Applied Science)

16:20 Matthias Rüb (DFKI): A Simulation Environment Predicting User Data Demand (UDD-Sim) in Upcoming Wireless Networks and Smart Cities

16:40 Ingo Friese (Deutsche Telekom): Over-The-Top Resource Broker System for Split Computing

17:00 Alexandr Langolf (Uni Kiel): Machine Learning-based Multi-Step Ahead Handover Prediction for Stand-Alone 5G Systems in Maritime Environments

17:20 Ende des 1. Tages

19:30 Abendveranstaltung: Gemeinsames Abendessen in der Brauereigaststätte Rampendahl

Mittwoch, 21. Mai 2025

9:00 Key Note

Christian Mannweiler (Nokia): 6G - Architecting tomorrow: Design choices for 6G RAN and System

9:40 Kaffeepause und Demonstrationen**10:10 Sitzung 5: Advances in Security and QoS**

Sitzungsleitung: Peter Roer (HS Osnabrück)

10:10 Matthias Koch (Fraunhofer FKIE): A5/1 is in the Air: Passive Detection of 2G (GSM) Cipherring Algorithms

10:30 Sai A. Madhavapeddi (Nokia): Survey on 5G Security in the Post-Quantum Era

10:50 Ameya Joshi (TU Chemnitz): Optimization of disaggregated 5G+ networks considering internal traffic and QoS requirements

11:10 Kaffeepause und Demonstrationen**11:40 Sitzung 6: O-RAN Experience**

Sitzungsleitung: Bernd Schröder (brown-iposs)

11:40 Thorsten Horstmann (HS Bonn Rhein-Sieg): open5Gcube: A Modular and Usable Framework for Mobile Network Laboratories

12:00 Felix Kahmann (HS Osnabrück): O-RAN 7.2 Campus Network: An Experience Paper

12:20 Hubert Djuitcheu (Adtran Networks SE): Industrial O-RAN Deployment: Insights from Single-Cell Co-Channel gNB Analysis

12:40 Mittagspause und Demonstrationen**13:40 Key Note**

Klaus David (Uni Kassel): „The wireless seat belt”: Perspectives, challenges and requirements for 5G and 6G wireless communications

14:20 Kaffeepause und Demonstrationen**14:50 Sitzung 7: Networks for IoT and Robotics**

Sitzungsleitung: Clemens Westerkamp (HS Osnabrück)

14:50 Swen Leugner (HS Lübeck): An alternative to SubGHz for LPWAN

15:10 Sudip Barua (TU Chemnitz): Weather-Aware LoRaWAN Sensor Localization

15:30 Jan Peterhans (DFKI): Advancing Telerobotics: Evaluating ROS 2 in a Real-World Communication Test Environment

15:50 Abschlussdiskussion

16:00 Ende der Veranstaltung