

European Wireless Conference 2022

Content

Main Track

Session 1

<i>Lightweight Compression for Severely Constrained IoT Devices</i>	1
Rasmus Vestergaard (Aarhus University, Denmark); Johannes Techel (Universität der Bundeswehr München, Germany); Qi Zhang and Daniel E. Lucani (Aarhus University, Denmark)	
<i>Implementation and Experimental Evaluation of Reed-Solomon Identification.....</i>	7
Roberto Ferrara (TU München & Institute for Communications Engineering, Germany); Luis Torres-Figueroa (TU München, Germany); Holger Boche (Technical University Munich, Germany); Christian Deppe and Wafa Labidi (Technical University of Munich, Germany); Ullrich J Mönich (TU München, Germany); Vlad Costin Andrei (Technische Universität München, Germany)	
<i>Cost and Correlation in Strategic Wireless Sensing Driven by Age of Information</i>	13
Laura Crosara and Leonardo Badia (Università degli Studi di Padova, Italy)	
<i>Reconfigurable Intelligent Surface and UAV-Assisted THz Mobile Communications</i>	19
Sara Farrag, Engy Aly Maher and Ahmed E. El-Mahdy (German University in Cairo, Egypt); Falko Dressler (TU Berlin, Germany)	

Main Track

Session 2

<i>5G NR Support for UAV-Assisted Cellular Communication on Non-Terrestrial Network</i>	27
Justine Cris B Borromeo (Scuola Superiore Sant'Anna, Italy); Koteswararao Kondepudi (Indian Institute of Technology Dharwad, India); Nicola Andrioli (National Research Council of Italy, Italy); Luca Valcarenghi (Scuola Superiore Sant'Anna, Italy); Riccardo Bassoli (TU Dresden, Germany); Frank H.P. Fitzek (TU Dresden & ComNets – Communication Networks Group, Germany)	
<i>Deep Reinforcement Learning for Uplink Multi-Carrier Non-Orthogonal Multiple Access Resource Allocation Using Buffer State Information</i>	34
Eike Manuel Bansbach (Karlsruher Institut für Technologie, Germany); Yigit Kiyak (Karlsruhe Institute of Technology, Germany); Laurent Schmalen (Karlsruhe Institute of Technology (KIT), Germany)	
<i>Federated Learning in UAV-Enhanced Networks Joint Coverage and Convergence Time Optimization....</i>	40
Mariam Yahya (University of Tuebingen, Germany); Setareh Maghsudi (University of Tübingen, Germany); Slawomir Stanczak (TU Berlin & Fraunhofer Heinrich Hertz Institute, Germany)	
<i>Optimal Continuous Trajectory Design for UAV-Assisted Reliable Communication Operating with Finite Blocklength Codes.....</i>	47
Xiaopeng Yuan and Yulin Hu (RWTH Aachen University, Germany); Xuan Wen (Wuhan University, China); Marina Petrova (KTH Royal Institute of Technology, Sweden); Anke Schmeink (RWTH Aachen University, Germany)	

Main Track

Session 3

Transparent Storage Encryption in Kubernetes.....53

Jennifer Gabriel (Technical University of Dresden, Germany); Silvio Ankermann and Mauri Seidel (TU Dresden, Germany); Frank H.P. Fitzek (TU Dresden & ComNets - Communication Networks Group, Germany)

Impact of Softwarization in Microservices-Based SDN Controller.....59

Domenico Scotece (University of Bologna, Italy); Sisay Tadesse Arzo (University of New Mexico, USA); Riccardo Bassoli (TU Dresden, Germany); Luca Foschini (University of Bologna, Italy); Michael Devetsikiotis (University of New Mexico, USA); Frank H.P. Fitzek (TU Dresden & ComNets - Communication Networks Group, Germany)

Resource Allocation with Stability Constraints of an Edge-Cloud Controlled AGV.....65

Shreya Tayade (German Research Center for Artificial Intelligence, Germany); Peter Rost (Karlsruhe Institute of Technology, Germany); Andreas Maeder (Nokia Networks, Germany); Hans Dieter Schotten (Deutsches Forschungszentrum für Künstliche Intelligenz GmbH, Germany)

Design and Prototyping Distributed CNN Inference Acceleration in Edge Computing72

Zhongtian Dong, Nan Li, Alexandros Iosifidis and Qi Zhang (Aarhus University, Denmark)

Tactile Internet

Special Session 1

Human Perception Across the Lifespan as the Basis for a Tactile Internet for Everyone.....78

Shu-Chen Li and Evelyn Muschter (TU Dresden, Germany); Andreas Noll and Basak Gulecyuz (Technical University of Munich, Germany); Eckehard Steinbach (TU München, Germany); Frank H.P. Fitzek (TU Dresden & ComNets - Communication Networks Group, Germany)

Age-Related Differences in Perceptual Vibrotactile Quality Assessment of a Tactile Codec84

Evelyn Muschter and Leonie Herbst (TU Dresden, Germany); Eckehard Steinbach (TU München, Germany); Shu-Chen Li (TU Dresden, Germany)

Experimentation in 6G

Special Session 9 – Invited Session

Broadband MIMO Testbed for the Development and Research on 6G.....89

Benjamin Nuss (Karlsruhe Institute of Technology, Germany); Patrick Groeschel (Friedrich-Alexander-University Erlangen-Nuremberg, Germany); Johannes Pfau and Juergen Becker (Karlsruhe Institute of Technology, Germany); Martin Vossiek (LHFT, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany); Thomas Zwick (Karlsruhe Institute of Technology (KIT), Germany)

GrGym: A Playground for Research on RL/AI Enhanced Wireless Networks92

Anatolij Zubow (TU Berlin, Germany); Sascha Roesler (TU Berlin, Germany); Piotr Gawłowicz (TU Berlin, Germany); Falko Dressler (TU Berlin, Germany)

Hierarchical Bandwidth Phase Modulation for Reduced Peak-To-Average Power Ratio in Ultra-Broadband Terahertz Communications	96
Duschia M Bodet and Josep M Jornet (Northeastern University, USA)	
5G InterOPERAbility of Open RAN Components in Large Testbed Ecosystem: Towards 6G Flexibility.....	102
Thomas Hoeschele (Technische Universitaet Dresden, Germany); Florian Kaltenberger (Eurecom, France); Elif Tasdemir and Andreas Ingo Grohmann (TU Dresden, Germany); Martin Reisslein (Arizona State University, USA); Frank H.P. Fitzek (TU Dresden & ComNets – Communi-cation Networks Group, Germany)	
Intelligent Closed-Loop RAN Control with xApps in OpenRAN Gym	108
Leonardo Bonati, Michele Polese and Salvatore D'Oro (Northeastern University, USA); Stefano Basagni (Northeastern University & The Institute for the Wireless Internet of Things, USA); Tommaso Melodia (Northeastern University, USA)	

Molecular Communications

Special Session 4

Digital Simulator of the Human Arteries.....	114
Jorge Torres Gomez (TU Berlin, Germany); Jorge L González Rios (University of Luxembourg); Falko Dressler (TU Berlin, Germany)	

Joint Communications and Sensing in Wireless Systems

Special Session 7

Power Allocation Strategy for Joint Communications and Sensing in NOMA-Assisted Low-Latency Networks	120
Yao Zhu, Yulin Hu and Wuwan Tong (RWTH Aachen University, Germany); Giuseppe Caire (TU Berlin, Germany); Anke Schmeink (RWTH Aachen University, Germany)	

Quantum Communication Networks

Special Session 3

Entanglement Assisted Classical Communication Link for Transmission of Pareto ON/OFF Time Series	126
Simon Sekavčník (Technical University Munich, Germany); Janis Nötzel (TU München, Germany)	

Comparative Study of Quantum and Classical Error Correction for Future Quantum-6G Networks.....	133
Siddharth Das and Riccardo Bassoli (TU Dresden, Germany); Roberto Ferrara (TU München & Institute for Communications Engineering, Germany); Janis Nötzel (TU München, Germany); Christian Deppe (Technical University of Munich, Germany); Frank H.P. Fitzek (TU Dresden & ComNets - Communication Networks Group, Germany); Holger Boche (Technical University Munich, Germany)	

Demo Session

Special Session 8

Ainur: A Framework for Repeatable End-To-End Wireless Edge Computing Testbed Research 139

Manuel O. J. Olguín Muñoz, Seyed Samie Mostafavi, Vishnu Narayanan Moothedath and James Gross
(KTH Royal Institute of Technology, Sweden)

5G QoS Prediction and Application Offloading 146

Nikolaj Marchenko (Robert Bosch GmbH, Germany); Janne Ali-Tolppa (Nokia, Finland); Oscar Dario Ramos Cantor (Robert Bosch GmbH, Germany); Patrick Agostini (TU Berlin, Germany); Rastin Pries (Nokia, Germany)

A Joint Industrial-Network Simulator for Leveraging Automation in 5G Private Networks 152

Alessandro Lieto (Nokia Bell Labs, Germany); Stanislaw Strzyz (Atesio GmbH, Germany);
Patrick Agostini (TU Berlin, Germany); Tianlun Hu (Nokia Bell Labs Stuttgart, Germany)