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Wireless Futures in the Era of
Network Programmability

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2-4 May 2019

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Program

Time	Navitas Auditorium
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Thursday, May 2

09:00-10:30	<i>Keynote from Paulo Mendes (Airbus): Internet of Space: Communication Systems for Future Space-based Internet Services</i>
11:00-12:30	S1: <i>Session 1: Network Coding</i>
14:00-15:30	<i>Keynote from Jeroen Wigard (Nokia Bell Labs): Enabling reliable communications for aerial vehicles through cellular networks</i>
16:00-17:30	S2: <i>Session 2: Emerging Trends</i>

Friday, May 3

09:00-10:30	S3: <i>Session 3: IoT</i>
11:00-12:30	<i>Keynote from Lars Dittmann: Design and applications for reliable and ultra-reliable wireless access networks</i>
14:00-15:30	S4: <i>Session 4: Cellular Networks and 5G</i>
16:00-17:30	S5: <i>Session 5: Wireless Communications</i>

Thursday, May 3

Thursday, May 3, 09:00 - 10:30

Internet of Space: Communication Systems for Future Space-based Internet Services

Keynote

Dr. Paulo Mendes, Airbus, Germany

Room: Navitas Auditorium

Thursday, May 3, 11:00 - 12:30

Session 1: Network Coding

Room: Navitas Auditorium

Tunable Expansion Packets for Fulcrum Codes

Vu Nguyen, Elif Tasdemir, Giang T. Nguyen, Daniel E. Lucani, Frank H.P. Fitzek

Hierarchical FEC and Modulation in Network-coded Two-way Relay Channel

Dongho You, Dong Ho Kim, Hani Salah, Frank H.P. Fitzek

Accelerated Processing for Maximum Distance Separable Codes Using Composite Extension Fields

Diego Ruano, Daniel E. Lucani, Olav Geil

Enhancing Opportunistic Routing for Dynamic Environments

Hani Salah, Achim Schade, Ievgenii Anatolijovuch Tsokalo, Frank H.P. Fitzek

A Multi-Threaded Approach to Encoding with Random Linear Network Coding

Lars Nielsen, René Rydhof Hansen, Daniel E. Lucani

Thursday, May 3

Thursday, May 3, 14:00 - 15:30

Enabling reliable communications for aerial vehicles through cellular networks

Keynote

Dr. Jeroen Wigard, Nokia Bell Labs, Denmark

Room: Navitas Auditorium

Thursday, May 3, 16:00 - 17:30

Session 2: Emerging Trends

Room: Navitas Auditorium

Analysis of Blockchain Forking on an Ethereum Network

Tatiana Madsen, Sebastian Damsgaard, Francisco Silva, Mikki Alexander Mousing, Sørensen, Flavien Marty, Bandar

Altariqi, Eleftheria Chatzigianni, Hans-Peter Schwefel

How to Measure the Average and Peak Age of Information in Real Networks?

Basel Barakat, Hachem Yassine, Simeon Keates, Ian James Wassell, Kamran Arshad

FileTribe: Blockchain-based Secure File Sharing on IPFS

László Sári, Márton Sipos

Towards a Better Understanding of Live Migration Performance with Docker Containers

Roberto Torre, Elena Urbano, Hani Salah, Giang T. Nguyen, Frank H.P. Fitzek

An Algebraic Approach to Network Slicing

Riccardo Bassoli, Fabrizio Granelli

Friday, May 3, 9:00 - 10:30

Session 3: IoT

Room: Navitas Auditorium

Allocation of Repetition Redundancy in LoRa

Siddhartha Borkotoky, Christian Bettstetter, Christian Raffelsberger, Udo Schilcher

Generalized Deduplication: Lossless Compression for Large Amounts of Small IoT Data

Rasmus Vestergaard, Daniel E. Lucani, Qi Zhang

Minimizing Bandwidth Use in IoT Storage with Random Device Failures

Xiaobo Zhao, Daniel E. Lucani, Xiaohong Shen, Haiyan Wang

Study of a Self-Powered UWB Sensor Network for Industrial Applications

Jorge F. Schmidt, Denis Chernov, Manfred Pauritsch, Christian Bettstetter

Enabling Secure Multicast Group Communications in IP Wireless Networks for the Internet of Things

Nestor Hernandez, Jacob H. Lauritsen, Kasper K. Jacobsen, Rune Hylsberg Jacobsen

Friday, May 3

Friday, May 3, 11:00 - 12:30

Design and applications for reliable and ultra-reliable wireless access networks

Keynote

Prof. Lars Dittmann, DTU, Denmark

Room: Navitas Auditorium

Friday, May 3, 12:00 - 15:30

Session 4: Cellular Networks and 5G

Room: Navitas Auditorium

Edge Computing Enabled Mobile Augmented Reality with Imperfect Channel Knowledge

Jianhui Liu, Qi Zhang

System Level Analysis of K-Repetition for Uplink Grant-Free URLLC in 5G NR

Thomas Haaning Jacobsen, Renato Barbosa Abreu, Gilberto Berardinelli, Klaus Pedersen, István Z. Kovács, Preben Mogensen

Performance Analysis and Optimization of Cooperative Caching in Cellular Networks

Fengming Cao, Ziming Zhu, Mahesh Sooriyabandara, Zhong Fan, Ayalvadi Ganesh, Simon Armour

Dynamic Uplink Resource Dimensioning for Massive MTC in 5G Networks Based on SCMA

Luciano Miuccio, Daniela Panno, Salvatore Riolo

Initial Concept of an Oracle-Structured Stream Compression Protocol for Arbitrary Network Flows

Máté Tömösközi, Mingchuan Luo, Frank H.P. Fitzek, Péter Ekler

Friday, May 3, 16:00 - 17:30

Session 5: Wireless Communications

Room: Navitas Auditorium

Exploiting CSMA/ECA and Adaptive Sensitivity Control for Simultaneous Transmit and Receive in IEEE 802.11 WLANs

Adnan Aijaz, Parag Kulkarni

On the Different Mathematical Realizations for the Digital Synthesis of LoRa-Based Modulation

Tallal Elshabrawy, Phoebe Edward, Mohamed Ashour, Joerg Robert

Quality-Aware Broadcasting Strategies for Position Estimation in VANETs

Federico Mason, Marco Giordani, Federico Chiariotti, Andrea Zanella, Michele Zorzi

UWB Connectivity Inside a Space Launch Vehicle

Daniel Neuhold, Jorge F. Schmidt, Christian Bettstetter, Johannes Sebald, Jirka Klau

Comparing DASH Adaptation Algorithms in a Real Network Environment

Daive Talon, Luca Attanasio, Federico Chiariotti, Matteo Gadaleta, Andrea Zanella, Michele Rossi

