

DELTA Autumn Workshop 2023

University of Jyväskylä, November 27-28, 2023

Address: Mattilanniemi 2, Jyväskylä (Agora building)

Agenda

Monday November 27

- 11:00 Welcome coffee
- 11:15 **Opening** (Tapio Frantti, JYU)
- 11:30 **Keynote 1: Martti Lehto, JyU**
Current perspectives on cyber intelligence and cyber warfare
- 12:20 **Medical Systems** (Chair: Jussi Simola, JYU)
12:20 Daria Alekseeva, TAU: Towards the Advanced Data Processing for Remote Medical Scenarios Using Task Offloading Strategy
12:40 Uzman Ali, TAU: Implantable Antenna for Wireless Brain Health Monitoring
- 13:00 Lunch
- 14:00 **Keynote 2: Simona Lohan, TAU: LEO-PNT – Opportunities and challenges of Low Earth Orbit satellites in positioning, navigation and timing applications**
- 14:50 **Artificial Intelligence** (Chair: Tapio Frantti, JYU)
14:50 Luca Ferranti, UWASA: FuzzyLogic.jl: a Flexible Library for Efficient and Productive Fuzzy Inference
15:10 Nikita Zeulin, TAU: Noise-Tolerant Federated Hyperdimensional Computing
- 15:30 Coffee
- 16:00 **Keynote 3: Andrei Costin, JyU: t.b.d.**
- 16:50 **Wireless Systems** (Chair: Simona Lohan, TAU)
16:50 Guillem Foreman Campins, TAU: Orthogonal Time Frequency Space (OTFS) modulation and its application to LEO-PNT
17:10 Hadeel Obaid, TAU: Cache-enabled RIS-Assisted THz Wireless System
- 17:30 end of day1 program
- 18:00 **Social dinner**
Hotel Alba, Ahlmaninkatu 4

Tuesday November 28

- 9:15 Day 2 opening
- 9:20 **Keynote 4: Markku Korkiakoski, Capgemini:**
Influencing through information – how to shape our opinions
- 10:10 **mmWave Systems** (Chair: Tapio Frantti, JYU)
10:10 Yekaterina Sadovaya, TAU: Impact of System-Specific Factors on Scheduling and Resource Allocation in mmWave IAB Networks
10:30 Anna Gaydamaka, TAU: On the Optimal Antenna Beamwidth for UAV Localization using Millimeter Wave Radars
- 10:50 Coffee
- 11:20 **Digital Hardware Design** (Chair: Arttu Takala, JYU)
11:20 Hans Jakob Damsgaard, TAU: Verification of Approximate Hardware Designs with ChiselVerify
11:40 Zohaib Hassan, TAU: Coarse-Grained Reconfigurable Architectures for Radio Baseband Application
- 12:00 Lunch
- 13:00 **Keynote 5:**
Samuel Marchal, WithSecure, The security risks of fast AI adoption
- 13:50 Coffee
- 14:10 **Systems Engineering** (Chair: Tapio Frantti, JYU)
14:10 Meysam Pashaei, UWASA: Challenges and opportunities in the implementation of centralized protection schemes
14:30 Janne Heilala, TAU: t.b.d.
- 14:50 end of workshop