

DELTA Workshop 2025

August 19-20, 2025

Forum Marinum, Linnankatu 72, Turku

Agenda

August 19

10:30-11:00 Welcome coffee

11:00 Opening

11:15 Keynote 1: Viktoriia Shubina, UTU (Chair: Jari Nurmi, TAU)

Building trustworthy ML systems using real-world sensor data

12:00 Digital Hardware (Chair: Jari Nurmi, TAU)

12:00 Zohaib Hassan, TAU: Towards Unified Modulator for Mobility Scenarios: A CGRA-Based Approach

12:20 Bilal Bashir, TAU: Reconfigurable Digital Baseband Hardware for Cognitive Radio

12:40 Maria Khan, TAU: Survey of Canonical Signed Digit Multiplication

13:00 Lunch and museum visit

14:00 Keynote 2: Hannu Tenhunen, Fudan University / KTH (Chair: Jouni Isoaho, UTU)

Innovations to Drive Industry Growth and Its Impact to Higher Education

14:45 Measurement, Communication and Sensing (Chair: Viktoriia Shubina, UTU)

14:45 Md Abdur Rahman, TAU: Embedded solution for ECG measurement and machine learning-based real time analysis

15:05 Ninja Kajas, TAU: Advancing Electronic Skin: Fabricating Piezoelectric Sensor Arrays

15:25 Radovan Juran, TAU: From Echoes to Maps: Collaborative SLAM via mmWave ISAC

15:45 Coffee break

16:10 Analysis, Modelling and Optimization (Chair: Jouni Isoaho, UTU)

16:10 Andrei Smoliakov, TAU: Analysis of the Phase Quantization Error in Vector-sum Phase Modulator

16:30 Naz Nebile Karatas, UTU: Privacy in Autonomous Vehicles: Perception of Users

16:50 Iuliia Tropkina, TAU: Multi-Armed Bandits for Low-Complexity Beam Management in High-Speed mmWave IoT

17:10 Xiaotian Bi, UWASA: Digital model preparation on gas-filled spray pot for marine engine injector rig test

17:30 End of program.

18:00 Dinner in restaurant Harald, Aurakatu 3, Turku

August 20

09:00 Keynote 3: Jani Boutellier, UWASA (Chair: Jari Nurmi, TAU)

EDGE-PRUNE: Flexible Distributed Deep Learning Inference

09:45 Large Language Models (Chair: Jouni Isoaho, UTU)

09:45 Aisvarya Adeseye, UTU: Hallucinations Reduction for Local LLMs for Qualitative Research

10:05: Ismayil Hasanov, UTU: Application of LLMs in Cyber Security

10:25 Satu Johansson, TAU: Text Steganography Meets LLMs

10:45 Coffee break

11:00 Machine Learning Applications and Privacy (Chair: Jani Boutellier, UWASA)

11:00 Amalia Eka Rakhmania, AALTO: Deep Learning Based Packet Detection with Adaptive Thresholding

11:20 Fabliha Bushra Islam, TAU: Implementation of Federated Learning framework on domain-dependent Wi-Fi Samples

11:40 Majed Imad, TAU: Employing Factor graph optimization to enhance positioning accuracy

12:00 Jolly Trivedi, UTU, Pseudonymization of Health Data in Remote Patient Monitoring using Synthetic Data

12:20 Lunch and museum visit

13:30 Keynote 4: Jouni Isoaho, UTU (Chair: Jari Nurmi, TAU)

Transforming ICT Engineering: How AI Redefines Education, Expertise, and Research Careers

14:15 Coffee break

14:30 Wireless Signals (Chair: Aleksandr Ometov, TAU)

14:30 Yekaterina Sadovaya, TAU: Network energy saving of 5G RAN

14:50: Uzman Ali, TAU: Implant-to-Implant Communications using Quad-Band Antennas for Intracranial Applications

15:10 Syed Muneeb Ur Rahman, TAU: Generation and Analysis of Asynchronous GNSS Spoofing Dataset for GPS & Galileo Under Multiple Scenarios

15:35 Fatimeh Rafiei Maleki, TAU: Stochastic Modeling and Analysis of Large LEO Satellite Networks Across Various Latitudes

15:55 Closing

16:00 End of workshop

Alternate speakers (replacing no-shows):

1. Yizheng Wu (TAU)
2. Yelyzaveta Pervysheva (TAU)