

PRE-DAY: "DeepTech Commercialization"		Tallinn University of Technology, TalTech	
5 th October 2026		Ehitajate tee 5, Tallinn	
09:30 Registration & Coffee		TalTech Student House (STU)	
	TALTECH STUDENT HOUSE (STU)		
10:00	Welcome note: Tamas Pardy & Yannick Le Moullec		
10:15	Presentation block 1		
11:00	Intermission: Networking break		
11:30	Presentation block 2		
12:15	Intermission: startup ideas from students in audience		
13:00 Lunch			
14:00	Block 3: SYP panel discussion - Aligning academic and industrial careers		
15:00	Conclusion		
15:20 Closing note			
15:30 End of the "DeepTech Commercialization" day			
DAY 1:		Nordic Hotel Forum,	
6 th October 2026		Viru väljak 3,	
09:00 Registration & Coffee		10111 Tallinn, ESTONIA	
	CAPELLA CONFERENCE ROOM		
09:30	Welcome note: Prof. Yannick Le Moullec		
	Keynote speaker: Alexandros Pantazis - Emerging		
	Nanoscaled Integrated Circuits and		
09:45	Systems Impact Center (EnICS)		
10:45	5G-Baltics Panel		
12:30 Lunch			
	CAPELLA CONFERENCE ROOM		VEGA CONFERENCE ROOM
	Communication and Cognitive Systems 1: UAV systems, radar sensing, and spectrum security		Embedded and Cyber-Physical Systems 1: Reliability, security, efficiency
	Session Chair: Yannick Le Moullec		Session Chair: Peeter Ellervee
	Transformer Based Classification of Low Altitude UAVs and Ground Users in Cellular Networks - Junaid Sajid, Muhammad Mahtab Alam and Ivo Mürsepp		TinyFlowCore: A Parameterized ASIP for Compact Protocol and Routing Applications - Veli-Matti Rantanen, Yongchao Dang and Kalle Ruttik
13:30			
	Parameter-Constrained Neural Architecture Search for Lightweight UAV Disaster Image Classification - Muhammad Bilal Khan, Haroon Tahir, Ali Hassan, Muhammad Daud Abdullah Asif, Rizwan Ahmad, Waqas Ahmed and Muhammad Mahtab Alam		AutoTrans: AI-Assisted Automatic Translation of Security Assertions for RISC-V Processors - Sharjeel Imtiaz and Tara Ghasempouri
13:50			

14:10	Analytical Beam-Book Design for a 1-bit Open-Source RIS: From Closed-Form Model to Hardware Validation - Federico Francesco Luigi Mariani, Alessandro Andrea Vogrig, Davide Scazzoli, Muhammad Mahtab Alam and Maurizio Magarini	The Cost of Being Compact: Efficient LEB128 Decoding for an In-Place WebAssembly Interpreter Lionel Wisskirchen and Stefan Wallentowitz
14:30	Software-Defined Radio Prototyping of OTFS Velocity Radar - Nikolajs Tihomorskis, Omid Abbassi Aghda, Sandis Migla, Rui Dinis, Dmitrijs Pikulins and Arturs Aboltins	Out of the (Sand)box: Efficient Inter-Module Communication for Rust-based WebAssembly on Microcontrollers - Simon Mederer, Frans Skarman and Stefan Wallentowitz
14:50	GHAAT: An End-to-End Autonomous Counter-UAV Framework with Vision Guidance and Net Capture - Shameer Ashraf, Muhammad Talha Hassan, Ali Hassan, Rizwan Ahmad, Maurizio Magarini and Muhammad Mahtab Alam	A Lightweight and Robust Two-Stage Acoustic Pipeline for Embedded Artillery Launch Detection - Martin Maxa, Jakub Svatos and Jakub Zelinka
15:10	Impact of Tropospheric Ducting on GNSS Jamming in the Baltic region: Reference Station and UAV Observations - Lauri Jürgenson and Ivo Määrsepp	Comparative Analysis of Cryptographic Algorithms Against MITM Attacks in Smart Grid Systems - Abdul Haseeb, Levent Aksoy, Jako Kilter and Tara Ghasempouri
15:30 Coffee break		
	Communication and Cognitive Systems 2: RF architectures, reconfigurable systems, and experimental sensing	Bioinstrumentation, Smart Materials, and Adaptive Automation 1: Microfluidic Handling
	Session Chair: Muhammad Mahtab Alam	Session Chair: Támas Pardy
15:50	A Four-Branch LINC Technique With Combination Over-the-Air - Marius Diacu, João Guerreiro and Rui Dinis	TwinFlow: compact, user-friendly, pressure-controlled droplet generator for biotechnology uses - Anum Afroz, Rauno Jöemaa and Tamás Pardy
16:10	5G-Enabled Passive Radar for Unauthorized Drone Detection at FR2 - Niccolò Paglierani, Francesco Dei Rocini, Luca Reggiani, Davide Scazzoli and Maurizio Magarini	Advantages of Multiple LED Illumination and Adjustable Optical Power in Compact Spectrometer Systems Based on the Hamamatsu C12880MA - Veiko Rütter, Kaiser Pärnamets, Mihkel Kaljurand, Jelena Gorbatšova, Tamás Pardy, Ott Scheler and Jekaterina Mazina-Šinkar
16:30	Empirical Evaluation of RF Based Indoor Sensing Using Commercial 5G and RedCap Devices - Tõnis Kärjinen, Osama Elgarhy, Alar Kuusik and Muhammad Mahtab Alam	Direct FDM printing onto electrospun nanofiber membranes to create cross-flow microfluidic cassettes - Norman Sepsik, Ferenc Ender and Kolos Molnár
16:50	Invited Talk: Uncertainty Estimation for Instrumentation in Electronics and Optoelectronics - Patrice Salzenstein and Thomas Wu	
17:30	Sponsor 1	
17:45	Sponsor 2	
18:00 Free time & gathering		

18:15 Welcome reception in Restaurant NOHO (next to hotel lobby)		
21:00 End of the first day		
DAY 2: 7 th October 2026		Nordic Hotel Forum, Viru väljak 3, 10111 Tallinn, ESTONIA
09:00 Registration & Coffee		
	CAPELLA CONFERENCE ROOM	
09:30	Keynote speaker: Alexander Fish - Resurgence of Dynamic Logic and Memories: From Nanoscale CMOS to Cryogenic Computing	
	NATO PROTECT project special session	
10,3	Welcome words – Muhammad Mahtab Alam	
10,35	NATO	
10,5	NATO	
11,05	NATO	
11,1	NATO	
11,35	NATO	
12	NATO	
12,25	General Q&As	
12:30 Lunch		
	CAPELLA CONFERENCE ROOM	VEGA CONFERENCE ROOM
	Power Electronics and Sustainable Energy Systems	Sensing, Data Acquisition, and Intelligent Signal Processing 1: Remote measurements
	Session Chair: Indrek Roasto	Session Chair: Paul Annus
13:30	Evaluation of Denoising Techniques for Economical High Voltage Circuit Breaker Condition Monitoring - Sajjad Asefi	An Unsupervised Regression-Based Residual Approach for Detecting Hazard Trees in Mixed Forest Utility Buffers - Juris Sinica-Sinavskis
13:50	Loss Minimizing Flux Control for Induction Motor Drives Based on Maximum Torque per Flux Controlling Variable - Lelisa Wogi, Marcin Morawiec, Shahal Ibn Islam Joy, Jan Barta and Filip Wilczynski	Hallucination and Response Consistency Analysis of Large Language Models in ECG Interpretation - Jose Pereira
14:10	Multiscalar Control of Synchronous Reluctance Motor Drives With Online Flux Optimization - Shahal Ibn Islam Joy, Lelisa Wogi, Marcin Morawiec, Jarosław Guziński and Tausifur Rahman	Calibration of the Alphasense OPC-N3 Optical Particle Counter and Multi-Gas Sensor Box: From Linear Regression to Polynomial Models — A Case Study at the Õismäe Station - Mansur Ongarbayev, Jaanus Kaugerand and Olev Märtens
14:30	Cell-Level Fault Localization in PEMWE Stacks via CNN–BiLSTM on Raw Electrical Signals - Felipe González, Ricardo Flores, Antonio Sánchez, Ivan Cornejo and Felipe Morales	Experimental Estimation of SAR ADC Equivalent Input Parameters for High-Impedance Microcontroller DAQ Applications - Jakub Svatos, Jan Fischer and Jan Holub

14:50	Regional Weighted Efficiency of PV Inverters: A Reproducible Open-Data Based Methodology - Ihor Tverdovskyi, Serhii Stepenko and Anatoliy Prystupa	Bridging the Domain Gap: Evaluating Synthetic-to-Real Preprocessing for Solid-State LiDAR Vehicle Detection - Anatolijs Zencovs and Roberts Kadikis
15:10	Subnanosecond Pulses by Avalanche Transistor: Critical Analysis of One- and Two-Dimensional Numerical Simulations - Andres Udal, Ants Koel, Paul Annus and Mihhail Olentšenko	Ontology-Driven Quaternion Signal Processing for Nonlinear Ultrasonic Data Structuring and Interoperability in NDT 4.0 - Serge Dos Santos
15:30 Coffee break		
	Communication and Cognitive Systems 3: intelligent IoT, connectivity, and sensor analytics	Embedded and Cyber-Physical Systems 2: AI - applications & optimizations
	Session Chair: Muhammad Mahtab Alam	Session Chair: Alar Kuusik
15:50	Enhanced Multi-Class Gait Disorder Classification for IMU Signals using Conditional Generative AI Models - Maria Hanif, Rizwan Ahmad, Muhammad Mahtab Alam, Waqas Ahmed and Ali Hassan	AcoustiDrone Detection on Resource-Constrained Edge Devices: A Deployment-Oriented Comparison - Shantha Nimsara Randil Alagiyadura Fernando, Yannick Le Moullec, Huber Flores, Alar Kuusik and Laura Kõrgmaa
16:10	Mobility-Aware TSCH for Reliable IoT Connectivity - Charalampos Orfanidis, Oliver Orla Nielsen, Lucas Koefoed Schnügger and Xenofon Fafoutis	Evaluating On-Device and Server-Side Retrieval-Augmented Generation for a Rehabilitation Voice Assistant on Raspberry Pi - Aleksandr Bosler
16:30	Overhead-Optimized Short-Packet Communication for IIoT using DECT NR+ Networks - Quang Ngo, Yongchao Dang, Kalle Koskinen, Kalle Ruttik and Riku Jäntti	Model Specialization for Enhanced Semantic Segmentation in Autonomous Driving - Junyi Gu, Toomas Tahves, Mauro Bellone, Yinan Yu and Christian Berger
16:50	Deep Learning-Based SINR Estimation for LTE CAT-M Networks - Priit Roosipuu, Ivar Annus, Alar Kuusik and Muhammad Mahtab Alam	REQAP: Resilient Weight Packing and Quantization for DNN Acceleration - Mahdi Taheri, Samira Nazari, Mubashir Ansari, Ali Azarpeyvand, Mohsen Afsharchi, Maksim Jenihhin and Christian Herglotz
17:10	A Concise Mapping of Embedded Machine Learning for Wireless IIoT Anomaly Detection - Abrham Getachew Amare, Yannick Le Moullec, Kaiser Parnamets and Alar Kuusik	ICON: Iso-Cost Heterogeneous Approximation For Energy–Accuracy Optimization in DNN Accelerators - Ahsan Rafiq, Salvatore Pappalardo, Alberto Bosio and Maksim Jenihhin
17:30 Free time & gathering		
17:40 BUS TO LENNUSADAM		
18:00-19:00 Private Museum Tour		
19:00 Gala dinner at Lennusadam		
23:00-23.30 End of the second day; bus back to the Conference site		

DAY 3: 8 th October 2026		Nordic Hotel Forum, Viru väljak 3, 10111 Tallinn, ESTONIA
09:30 Registration & Coffee		
	CAPELLA CONFERENCE ROOM	
10:00	Keynote speaker: Riku Jäntti - Battery-less Devices in Mobile Networks: Backscatter Communication and Positioning for Ambient IoT	
11:00	TAICHIP SPECIAL SESSION	
12:30	Invited Talk: Silicon Lifecycle Management in Memory IPs: from On-Chip Aging Sensors and Processing Telemetry Datasets to Failure Prediction - Fabian Luise Vargas	
13:00 Lunch		
	Sensing, Data Acquisition, and Intelligent Signal Processing 2: <i>Medical and bio-measurements</i>	
	Session Chair: Olev Märtens	
14:00	Metrological analysis of portable bioimpedance analyzers - Maria Jürimaa, Olev Märtens, Marek Rist, Markus Parm and Margus Metshein	
14:20	Simple device for the impedance measurement - Paul Annus, Raul Land, Mart Min, Andrei Krivošei, Olev Martens and Margus Metshein	
14:40	Electrical Bioimpedance Spectroscopy for Non-Invasive Assessment of Transient Peripheral Ischemia: A Preliminary Feasibility Study - Andrei Krivošei, Kristina Lotamõis, Paul Annus, Mart Min, Marek Rist and Margus Metshein	
15:00 Coffee break		
	Bioinstrumentation, Smart Materials, and Adaptive Automation 2: <i>Analysis Methods</i>	
	Session Chair: Támas Pardy	
15:20	Machine Learning–Based Pre-Test Risk Stratification for PCR-Confirmed Chlamydia Using Patient-Reported Data and Urine Biomarkers - Mehrab Mahdian, Marko Lehes, Katrin Krolov and Tamas Pardy	
15:40	Cross-Model Consistency of Feature Importance in Electrospinning: Separating Robust from Model-Dependent Features - Mehrab Mahdian, Ferenc Ender and Tamas Pardy	
16:00	Prediction of Tissue Strain Response to External Pressure Using Subject Characteristics in Compression Ultrasonography - Justina Grajauskaitė, Rimvydas Eitminavičius, Rytis Jurkonis, Andrius Sakalauskas, Vaidotas Marozas and Andrius Rapalis	
16:20	Bioimpedance-Based Detection and Quantification of Venous Outflow Responses During Controlled Pneumatic Augmentation - Rimvydas Eitminavicius, Rytis Jurkonis, Saulius Daukantas, Andrius Sakalauskas, Vaidotas Marozas and Andrius Rapalis	
16:40 Closing note		
16:50 End of the conference		