

# Program of the 13<sup>th</sup> Prague Embedded Systems Workshop

Thursday, June 26

12:00-13:30	Lunch
13:30-13:50	Opening
13:50-14:50	<b>Keynote</b> - Poki Chen (National Taiwan University of Science and Technology, Taiwan) Automatic Analog IC Design Optimization
14:50-15:10	Coffee break
15:10-16:10 (2x 30)	<b>Session 1 – Network monitoring. Chair: T.B.A.</b>
	Kamil Jeřábek, Josef Koumar, Jiří Setinský, and Jaroslav Pešek (FIT, CTU in Prague, Czech Rep.) Explainable Anomaly Detection in Network Traffic Using LLM
	Richard Plný and Karel Hynek (FIT, CTU in Prague, Czech Rep.) On Evaluation of Data Fusion Methods for Network Traffic Classification
16:10-17:10 (2x 30)	<b>Session 2 – Applications. Chair: T.B.A.</b>
	Pavel Kopecký and Kamil Dedecius (FIT, CTU in Prague, Czech Rep.) Multi-Agent Multi-Object Tracking with Shared Measurements and Intersecting Fields of View
	Aleš Horna and Václav Přenosil (Masaryk University, Faculty of Informatics, Czech Rep.) Innovative Methods of Signal Processing for Hydrogen-Filled Proportional Counters
17:10-17:30	Coffee break
17:30-18:30	<b>Keynote</b> - Marcello Traiola (Inria centre at Rennes University, France) Toward Adaptive Embedded Systems: from Multi-Objective Design to Runtime Adaptation
18:30-???	Grill party

## Friday, June 27

10:00-11:00	<b>Industrial Talk – Petr Štukjunger</b> (STMicroelectronics, Czech Rep.) MEMS sensors for edge AI processing
11:00-11:20	Coffee break
11:20-13:20 (4x 30)	<b>Session 2 – Design &amp; Synthesis. Chair: T.B.A.</b>
	<i>Jure Vreča and Anton Biasizzo</i> (Jožef Stefan Institute, Slovenia) chisel4ml: A Tool For Generating Fast Direct Logic Implementations of Deeply Quantized Neural Networks
	<i>Veronika Junasová, Vladimír Levek, and Pavel Šteffan</i> (Brno University of Technology, Czech Rep.) The Accurate Measurement of Tilt Direction within Small Angles of Tilt
	<i>Pavel Tomíček and Jaroslav Boušek</i> (Brno University of Technology, Czech Rep.) Gate boosting: Novel gate driver based on an FPGA and reliability estimation
	<i>Michal Žáček and Petr Fišer</i> (FIT, CTU in Prague, Czech Rep.) Controllability-Based Circuit Similarity Estimation
13:20-13:30	<b>Short Industrial Talk - Michal Kašpárek (IMA s.r.o.)</b>
13:30-14:40	Lunch + hanging posters
14:40-16:10	<b>Industrial Talk - Pavel Macenauer</b> (NXP Semiconductors, Czech Rep.) Optimizing and Deploying Neural Networks to Mobile Devices
16:10-17:10	<b>Poster session + coffee break</b>
17:10-17:30	Poster session evaluation
17:30-???	Social event - walking tour to Kbely brewery

## Saturday, June 28

10:30-11:30 (2x 30)	<b>Session 3 – Embedded security. Chair: Martin Novotný</b>
	<i>Lukáš Daněk, Vojtěch Miškovský, and Matúš Olekšák</i> (FIT, CTU in Prague, Czech Rep.) Side-channel analysis of ChaCha20 stream cipher
	<i>Vít Mašek, Vojtěch Miškovský, and Matúš Olekšák</i> (FIT, CTU in Prague, Czech Rep.) Building a Side-Channel Attack Scheme on SipHash FPGA Implementation
11:30-11:50	Closing
11:50-???	Lunch