

Name of the event: International workshop on Embedded Digital Intelligence (IWoEDI'2023)

Date and time: From June 20th 17:45 - June 22nd, 18:00

Location: 14 Dzerbenes street, Riga, Latvia (EDI premises)

Agenda:

DAY1 - June 20th, 2023 - WELCOME					
Time	Duration	Room	Topic	Speakers	
17:45	18:00	00:15	Conference hall	Arrival, Registration and Networking for IWoEDI'2023 conference	
18:00	18:10	00:10	Conference hall	Welcome and Opening of IWoEDI'2023	Modris Greitans
18:10	20:10	02:00	Conference hall	Welcome drinks, snacks, and opportunities for informal discussions and networking.	All
DAY2 - June 21st, 2023 - OPENING and FIRST DAY OF THE CONFERENCE					
Time	Duration	Room	Topic	Speakers	
08:45	09:00	00:15	Conference hall	Arrival, Registration and Welcome Coffee	
09:00	09:15	00:15	Conference hall	Welcome and Conference Opening	Dr. Modris Greitāns
09:15	10:00	00:45	Conference hall	Keynote speech: Robot Arm Path Planning with Adaptive Obstacle Avoidance for Man-Robot Collaboration	Dr. Po Ting Lin
10:00	11:15	01:15	Conference hall	Session — Robotics	Chair: Dr. Roberts Kadiķis
10:00	10:15	00:15	Conference hall	Anatolijs Zencovs, Arturs Simkuns, Aly Oraby, Diana Duplevska, Maksims Ivanovs and Roberts Kadiķis. System Architecture for Robotic Arm Adjustment to Different Objects in Pick-and-Place Tasks.	Anatolijs Zencovs
10:15	10:30	00:15		Mantas Makulavicius, Justas Makutėnas, Dominykas Čičiurėnas, Vytautas Bučinskas and Andrius Dzedzickis. The Concept of Efficient Tool Path Generation Method for Industrial Robots.	Mantas Makulavicius
10:30	10:45	00:15		Oskars Vismanis, Janis Arents, Vytautas Bučinskas, Andrius Dzedzickis, Brijesh Patel, Wei-Cheng Tung, Po Ting Lin and Modris Greitans. Design and implementation of a microrobot system for manipulation of microscopic objects	Oskars Vismanis
10:45	11:00	00:15		Jurga Subačiūtė – Žemaitienė, Andrius Dzedzickis, Vytautas Bučinskas, Rokas Bagdonas. Experimental evaluation of microrobot positioning accuracy.	Jurga Subačiūtė - Žemaitienė
11:00	11:15	00:15		Andris Lapins, Janis Arents, Modris Greitans. Augmenting a Pre-Trained Object Detection Model with Planar Pose Estimation Capability.	Andris Lapiņš
11:15	11:35	00:20	Conference hall	Networking coffee break	
11:35	12:20	00:45	Conference hall	Keynote speech: In-Body and Battery-Free Internet of Things	Dr. Thiemo Voigt
12:20	13:20	01:00	Conference hall	Session — Bioimpedance and Intra-Body Communication	Chair: Dr. Rolands Šāvelis
12:20	12:35	00:15	Conference hall	Anar Abdullayev, Paul Annus, Andrei Krivoše, Margus Metshein, Olev Märtens and Marek Rist. Improved PWM-based Sinewave Generation: Example of the Impedance Measurement	Anar Abdullayev
12:35	12:50	00:15		Vladimirs Aristovs, Atis Elsts. Model of the Human Body as Signal Transmission Medium for Body-Coupled Communication	Dr. Atis Elsts
12:50	13:05	00:15		Vladimirs Aristovs. Remote Complex Resistance Measurement	Dr. Vladimirs Aristovs
13:05	13:20	00:15		Vladislavs Medvedevs, Atis Elsts. Simulating the Physical Layer of Body-Coupled Communication Protocols	Vladislavs Medvedevs
13:20	14:20	01:00	Conference hall	Networking Lunch	
14:20	15:05	00:45	Conference hall	Keynote speech: Robotics for Agile Manufacturing – Success stories from TRINITY	Dr. Minna Lanz
15:05	16:05	01:00	Conference hall	Session — Wired and Wireless Networks & Infrastructures	Chair: Dr. Leo Selāvo
15:05	15:20	00:15	Conference hall	Armands Ancāns. Wired Communication Protocol for Body Sensor Network: A Solution for Sensor Data Acquisition.	Armands Ancāns
15:20	15:35	00:15		Artis Rušīņš, Eduards Blumbergs, Deniss Tiščenko, Kirils Solovjovs and Pēteris Paikens. Wearable Device RF Fingerprinting: an Experimental Study Using COTS Hardware.	Artis Rušīņš
15:35	15:50	00:15		Janis Judvaitis and Leo Selavo. Supply and Demand in Wireless Sensor Network Testbeds.	Jānis Judvaitis
15:50	16:05	00:15		Amr Elkenawy, Roberts Kadiķis and Kaspars Ozols. Physical and Digital Infrastructure for Vulnerable Road User Protection.	Amr Elkenawy
16:05	16:25	00:20	Conference hall	Networking coffee break	
16:25	16:55	00:30	Conference hall	Session — Statistics	Chair: Dr. Atis Elsts
16:25	16:40	00:15	Conference hall	Alexander Andronov, Diana Santalova Thordarson, Hao Yub. On an interrupted bivariate renewal process and its applications.	Dr. Diana Santalova Thordarson
16:40	16:55	00:15		Nicholas Nechval, Gundars Berzins, Konstantin Nechval. New Applications of Computational Intelligence for Constructing Predictive or Optimal Statistical Decisions under Parametric Uncertainty.	Dr. Nicholas Nechval
16:55	17:05	00:10	Conference hall	Conclusion remarks of Conference Day 1	Dr. Modris Greitāns
17:05	18:00	00:55	Conference hall	Satellite event - IoT Security workshop	Krišjānis Nesenbergs
17:05	17:10	00:05	Conference hall	Introduction to IoT Security workshop	Krišjānis Nesenbergs
17:10	17:20	00:10		Sergejs Gaidukovs, Miks Bleija, Oskars Platnieks. Hybrid polymer composite materials for electromagnetic protection.	Sergejs Gaidukovs,
17:20	17:30	00:10		Krišjānis Nesenbergs, Kirils Solovjovs. Efficient data drive destruction in the field.	Krišjānis Nesenbergs
17:30	17:40	00:10		Gatis Šūpols, Vents Riekstiņš. Testing of electromagnetic protection solutions.	Gatis Šūpols

17:40	17:50	00:10		Ronalds Zakovskis, Pēteris Paikens. An Empirical Evaluation of Using Wi-Fi Access Points for Indoor Localization.	Ronalds Zakovskis,
17:50	18:00	00:10		Closing of the session, discussion on IoT Security	Krišjānis Nesenbergs, All
18:30	---	---	Riga Old Town	Social event (for all speakers, organizers & session chairs)	

DAY3 - June 22nd, 2023 - SECOND DAY OF THE CONFERENCE and CLOSING					
Time	Duration	Room	Topic	Speakers	
09:30	10:00	00:30	Conference hall	Arrival, Registration and Welcome Coffee	
10:00	11:00	01:00	Conference hall	Session — Machine Learning and Anomaly Detection	Chair: Dr. Kārlis Freivalds
10:00	10:15	00:15	Conference hall	Kaspars Sudars, Ivars Namatevs, Arturs Nikulins, Edgars Edelmers, Laura Neimane, Anda Slaidina, Oskars Radzins. Artificial Intelligence-Powered System for Identifying Bone Deterioration in Radiological Imaging.	Artūrs Ņikuļins
10:15	10:30	00:15		Edgars Lielāmurs. Izhikevich neuron implementation for accurate spiking neural network simulations in neuromorphic hardware.	Edgars Lielāmurs
10:30	10:45	00:15		Aleksejs Tatarinov, Aleksandrs Sisojevs and Anastasija Chaplinska. Pattern recognition algorithms for extraction of factors of interest from ultrasonic data.	Dr. Aleksejs Tatarinov
10:45	11:00	00:15		Linda Gulbe. Detecting tree crown injuries as remote sensing data anomalies.	Dr. Linda Gulbe
11:00	11:30	00:30	Conference hall	Networking coffee break	
11:30	12:15	00:45	Conference hall	Keynote speech: Shaping the future with advanced safe technologies	Dr. Anna Ryabokon
12:15	13:45	01:30	Conference hall	Special Session — Robotics, IoT and smart sensors	Chair: Dr. Modris Greitāns
12:15	12:25	00:10	Conference hall	Introduction to SRP MOTE WP4 RoLSe	Dr. Modris Greitāns
12:25	12:35	00:10		Peteris Racinskis, Janis Arents and Modris Greitans. Towards a Multi-modal, Multi-layer Mapping Framework for Autonomous Robotics – an Outline.	Jānis Ārents
12:35	12:45	00:10		Paulis Barzdins, Ingus Pretkalnins, Guntis Barzdins. Open-set Semantic Search in Unstructured Environments.	Dr. Guntis Bārzdīņš
12:45	12:55	00:10		Agris Nikitenko. Cooperative robotic systems for indoor logistics	Dr. Agris Ņikitenko
12:55	13:05	00:10		Oskars Teikmanis, Laura Leja, Kārlis Freivalds. Applying a Differentiable Physics Simulation to Move Objects with Fluid Streams.	Oskars Teikmanis
13:05	13:15	00:10		Audris Arzovs and Krisjanis Nesenbergs. Review on distributed learning for IoT-Edge-Cloud continuum.	Audris Arzovs
13:15	13:25	00:10		Andis Supe. Fiber Bragg Grating Interrogation system based on wavelength filters	Dr. Andis Supe
13:25	13:35	00:10		Vladislavs Medvedevs, Beate Banga, Armands Ancans and Krisjanis Nesenbergs. Interactive wearable feedback system.	Krišjānis Nesenbergs
13:35	13:45	00:10		Rihards Balass, Krisjanis Nesenbergs. Bringing IoT closer to carbon neutrality.	Rihards Balašs
13:45	13:50	00:05			Closing of the session
13:50	14:00	00:10	Conference hall	Closing of the Conference	Dr. Modris Greitāns
14:00	15:00	01:00	EDI labs	Guided tour at EDI laboratories	Dr. Kaspars Ozols
15:00	18:00	03:00	Conference hall, Terrace	Networking Lunch, "Round table discussions", Social event	