

International Interdisciplinary PhD Workshop (IIPhDW 2025)

Thursday 11 September 2025 - Saturday 13 September 2025

Akademia WSEI, Projektowa 4, 20-209 Lublin, Poland

Programme

Table of contents

Thursday 11 September 2025	1
Registration	1
Opening ceremony and introduction lecture	2
Session 1	2
Group photo and coffee brake	3
Session 2	3
Lunch	4
Posters Session	4
Free time	5
Social event	5
Friday 12 September 2025	6
Registration	6
Opening Day 2	7
Session 3	7
Coffee brake and Scientific committee	8
Session 4	8
Closing ceremony	9
Lunch	9
Saturday 13 September 2025	10
Tour	10

Thursday 11 September 2025

 **Registration** - AULA A (08:30 - 09:30)

Opening ceremony and introduction lecture - AULA A (09:30 - 10:00)

- Presenter: RYMARCZYK, Tomasz

Session 1: Chairman Prof. Dominik Sankowski - AULA A (10:00 - 11:00)

time	[id] title	presenter
10:00	[22] PINN-VIT: A Physics-Informed Neural Network Enhanced with Vision Transformer for Image Reconstruction in Electrical Impedance Tomography	MAJEREK, Dariusz
10:20	[21] Application of Multi-Head Neural Network Structures in Process Tomography	KŁOSOWSKI, Grzegorz
10:40	[20] Performance analysis of the differential neural network architecture in industrial tomography	KULISZ, Monika

Group photo and coffee break - AULA A (11:00 - 11:30)**Session 2: Chairman Prof. Andreas Ahrens - AULA A (11:30 - 13:10)**

time	[id] title	presenter
11:30	[23] Generate CT pictures for human torso using AI	STEFANIAK, Barbara
11:50	[24] Modular Software Architecture of the Portable Defektoskop Device	HYKA, Oleksii
12:10	[25] Application of machine learning algorithms in measurement and reconstruction analysis using Ultrasound Tomography	DZIADOSZ, Marcin
12:30	[26] Measuring Burstiness in Randomised Bit Sequences	KRISHNAKUMAR, Yadu Krishnan
12:50	[27] TECHNICAL REPORT ON THE DEVELOPMENT OF AN AUTONOMOUS STRAWBERRY HARVESTING ROBOT	LACK, Steffen

Lunch - AULA A (13:10 - 14:10)**Posters Session - AULA A (14:10 - 15:10)**

time	[id] title	presenter
14:10	[41] Performance Testing With Locust: A Flexible Approach To Load Simulation	RACHWAŁ, Alicja
14:10	[43] Introduction to research on using artificial intelligence for automation and optimisation of it system and computer network security	WÓJCIK, Marek
14:10	[45] Areas for improvement in the police force and economic crime	WIELEBA, Mateusz
14:10	[49] Cross-Modal Computer Vision and Emotional Recognition in Intelligent Customer Service Systems	MAJ, Michał
14:10	[51] Real-time Estimation of Quantitative Fermentation Parameters Using Electrical Tomography and Deep Neural Networks	KRÓL, Krzysztof
14:10	[53] Efficient Phase Shift Estimation in Noisy Discrete-Time Signal Processing	OLESZEK, Michał
14:10	[47] Determination of liquid volume in inclined tanks	MIKA, Krzysztof
14:10	[59] Integration Of Reconstruction And Machine Learning Methods In Industrial Process Monitoring	GOŁĄBEK, Michał
14:10	[62] Integration Of Hybrid Tomography And Neural Networks In Industrial Process Monitoring	KRÓL, Krzysztof
14:10	[64] Evolutionary Training Of Recurrent Networks For Classification And Prediction In Industry	MACIURA, Łukasz
14:10	[66] Using Machine Learning And Mobile Eit Sensors For Non-Invasive Urinary Tract Monitoring	RYMARCZYK, Tomasz
14:10	[40] Automated Project Team Design Using LLM-Based Agents	MAREK, Patryk
14:10	[42] Implementation of a miniature measurement platform for asset location using ultra-wideband signals and time-of-flight distance measurement methods	STYŁA, Michał
14:10	[44] Detecting sound features using Python	GUGAŁA, Łukasz
14:10	[46] Enhancing geometric accuracy of 3d ultrasonic imaging: a weighted reconstruction approach for nondestructive testing	GOŁĄBEK, Michał
14:10	[48] Semantic Extraction of Medical Data from Unstructured Documents Using OCR, LLM, and GraphQL	MAJ, Michał
14:10	[50] Computer system for diagnostic and treatment of unilateral neglect syndrome	STRZECHA, Krzysztof
14:10	[52] A crystallization control environment using hybrid tomography and deep reinforcement learning	NIDERLA, Konrad
14:10	[60] Development Of A Portable, Bimodal Tomographic System For Monitoring The Lower Urinary Tract	GOŁĄBEK, Michał
14:10	[61] Efficient Cloud Resource Management	KALETA, Paweł
14:10	[63] Application Of Electrical Impedance Tomography To Real-Time Monitoring And Optimization Processes	KULISZ, Monika
14:10	[65] Application Of Deep Residual Neural Networks For Chemical Compound Identification Based On Ftir Spectra In An Optical Tomography System	RYMARCZYK, Tomasz

Free time - AULA A (15:10 - 18:00)

Social event: Magia restaurant Grodzka 2 20-114 Lublin - AULA A (18:00 - 20:00)

Friday 12 September 2025

 **Registration - AULA A (08:30 - 09:30)**

Opening Day 2 - AULA A (09:30 - 10:00)**- Presenter: WÓJCIK, Dariusz****Session 3: Chairman Prof. Mariusz Rzaśa - AULA A (10:00 - 11:00)**

time	[id] title	presenter
10:00	[33] Predictors of success in Startup Management	KORZENIAK, Jacek
10:20	[32] PERFORMANCE ANALYSIS OF HOLOGRAPHY AND MIXED REALITY SYSTEMS FOR INDUSTRIAL PROCESS TOMOGRAPHY SUPERVISION	RYBAK, Grzegorz
10:40	[34] Personalized Modeling and Deep Learning–Based Temporal Prediction of Pediatric Bladder Behavior	FERDOUS, Sabrina

Coffee brake and Scientific committee - AULA A (11:00 - 11:30)**Session 4: Chairman Prof Christian Steinbrecher - AULA A (11:30 - 13:10)**

time	[id] title	presenter
11:30	[35] Generating Randomised Bit Sequences Using a Sigma-Delta Converter	WENZEL, Andreas
11:50	[36] Study of anomaly detection methods in unobtrusively acquired data in the context of AAL	BARTELT, Jan
12:10	[37] Non-invasive impedance blood glucose measurement	GNAŚ, Dominik
12:30	[38] Radar-based location system using high-frequency signals and reflective microwave tomography for indoor human detection and positioning	STYŁA, Michał
12:50	[39] Implications of kubernetes scheduling heuristics for machine learning application efficiency at the edge	CLAPA, Korad

Closing ceremony - AULA A (13:10 - 13:20)

Lunch - AULA A (13:20 - 14:20)

Saturday 13 September 2025

 **Tour** (10:00 - 13:00)