Thursday 24 April

09:00 **Opening** Session | Location: Stara Kotłownia, SK 108, Warsaw University of Technology, Main Campus | Convener: Wlodzimierz Dabrowski 09:10 09:10 Keynote Session | Location: Stara Kotłownia, SK 108, Warsaw University of Technology, Main Campus Description Dawid Adach: seryjny przedsiębiorca, inwestor, współtwórca MDB, CogniVis.ai oraz HydroCrops.farm. Z rozwiązań jego spółek korzysta ponad 3 mln użytkowników - w tym m.in. NASA, Amazon, Airbus czy Nike. Laureat listy "30 przed 30" polskiego "Forbesa". 09:10-09:30 Agent AI: współpraca, konkurencja czy symbioza? Speaker Dawid Adach 09:30 09:30 **Session A (Presentation)** Session | Location: Stara Kotłownia, SK 108, Warsaw University of Technology, Main Campus 09:30-09:42 Procedural civilization development including economical aspects and the terrain. **Speakers** Michał Kostera, Paweł Cegielski 09:42-09:54 Is it Hard for Kolmogorov-Arnold Networks To Learn the Game of Life? **Speakers** Maciej Michalski, Patryk Ferenc, Sebastian Górka 09:54-10:06 Mamba SSM with Kalman Filtering in Pendulum RL environment Speaker Piotr Klepacki 10:06-10:16 Line Follower Algorithm for a Flying Quadcopter Speaker Mikolaj Stasiak 10:16-10:28 Optimization of neural network model for malware detection accelerated on mobile NPUs Speaker Jan Konarski 10:30 10:30 Break Break | Location: Stara Kotłownia, SK 108, Warsaw University of Technology, Main Campus

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10:45

10:45

Session B (Poster)

Session | Location: Stara Kotłownia, SK 04/05, Warsaw University of Technology, Main Campus

10:45-11:15

Testy penetracyjne systemu zarządzania energią elektryczną OpenEMS identyfikacja i mitygacja podatności w otwartoźródłowych systemach energetycznych

Speaker

Kacper Gorlowski

10:45-11:15 Proxy Methods in Image Recognition

Speakers

Barbara Borkowska, Marcin Maciąg

10:45-11:15

Comparing the Efficiency of Selected Reinforcement Learning Algorithms in **Stability Control and Navigation Tasks**

Oskar Wyłucki

10:45-11:15

Automatic translation of Japanese manga using MultiModal Large Language Models

Speaker

Tomasz Nitsch

10:45-11:15

Exploring LLMs mathematical reasoning capability: Insights from GSM-Symbolic in **English and Polish**

Speakers

Marcin Łomiński, Michał Tomczyk

10:45-11:15 Ethereum price forecasting using deep neural networks

Speaker

Oskar Rozwadowski

10:45-11:15

A Lung Volume-Based Perfusion SPECT and CT Comparison Algorithm for **Enhanced Pulmonary Embolism Diagnosis**

Speakers

Daniel Kisiel, Eryk Muchorowski

10:45-11:15

Enhancing Large Language Models with Retrieval-Augmented Generation: A Case Study on Movie Data Beyond the Training Cutoff

Speaker

Marcel Mikołajczyk

Analysis and comparison of missing value imputation methods for atmospheric pollution data

Speaker

Jakub Jasiński

10:45-11:15

Franky: An Intelligent Agent for Stock Portfolio Management Using Large **Language Models and Deep Reinforcement Learning**

Mateusz Bartosik, Mikolaj Zawada

10:45-11:15 Zastosowanie modeli GAN do usuwania artefaktów z sygnału EEG

Speaker

Małgorzata Sokół

10:45-11:15

Verification of the authenticity of bullion coins with a mobile application based on frequency analysis using an artificial neural network

Speaker

Tomasz Gryczka

10:45-11:15

Accelerating AI Inference in the Browser with WebGPU: Evaluating Quantization Trade-offs in Latency, Quality, and Memory Usage

Speakers

Ignacy Ruszpel, Nikodem Wójcik

10:45-11:15 Evaluating detection methods of synthetic images

Speakers

Michal Wójtowicz, Michał Biliński

10:45-11:15

Comparative Analysis of Multi-Agent LLM Systems for Solving Polish Matura in **Physics Exams**

Speaker

Piotr Wróbel

10:45-11:15

Examination of PCA Utilisation for Multilabel Classifier of Multispectral Images

Speakers

Bartosz Staszynski, Filip Karpowicz, Wiktor Kępiński

10:45-11:15 Przewidywanie wstrząsów wtórnych przy pomocy Sieci Neuronowych.

Speaker

Mikołaj Klębowski

10:45-11:15

Optimizing Football Betting Strategies Using Deep Neural Networks and Modern **Portfolio Theory**

Speakers

Daniel Kuciński, Tomasz Mycielski

10:45-11:15 Pose-Based Motion Analysis for Physical Exercise Quality Assessment

Speaker

Wojciech Jakieła

10:45-11:15 Comparison of Models for Automatic Description of Medical Images

Speaker

Jakub Urbański

10:45-11:15

Comparative Analysis of Machine Learning and Statistical Models for Short-Term **Energy Production Forecasting in Poland**

Jakub Karpiński

10:45-11:15

Explainability of Convolutional Neural Network: Overview of Methods

Speaker

Magdalena Markowicz

10:45-11:15 Post-Quantum Cryptography: Benchmarking ML-KEM Against RSA

Speaker

Nina Łabęcka

10:45-11:15

Evaluating unsupervised data mining methods to assess the utility of such approaches for SIEM event analysis.

Speaker

Marcin Dydo

10:45-11:15

Enhancing Phishing Detection on Websites: A Hybrid Approach Combining Signature-Based Detection and Traditional Machine Learning Methods - Abstract

Speakers

Jakub Romanek, Marcin Latawiec

11:15

11:15

11:30

11:30

Break

Break | Location: Stara Kotłownia, SK 108, Warsaw University of Technology, Main Campus

Session C (Poster)

Session | Location: Stara Kotłownia, SK 04/05, Warsaw University of Technology, Main Campus

11:30-12:00

Przegląd znakowania wodnego obrazów we współczesnych zastosowaniach

Speakers

Adam Pilewski, Mikołaj Kordowski

11:30-12:00

Projekt uniwersalnego robota modularnego

Speakers

Feliks Brzeziński, Kacper Olszewski, Patrycja Płodowska

11:30-12:00

Attacks on LSTM-Based Recurrent Neural Networks for Sentiment Analysis

Speaker

Rafał Zan

11:30-12:00 Performance Comparison of WebAssembly and JavaScript

Speakers

Jakub Ciszewski, Kaja Myk

11:30-12:00

Database Index Costs in the Cloud-Based Multitenant Architecture on the **Salesforce Platform**

Speaker

Stanislaw Zań

11:30-12:00

HDR - the impact of input parameters on the result for Debevec algorithm

Speakers

Jakub Maciejewski, Michał Ziober

11:30-12:00 Perception manipulation and subjective reception of data

Speaker

Filip Horst

11:30-12:00

Spatio-Temporal Memory System for Robots: Enabling Long-Term Contextual Reasoning

Speaker

Maciej Majek

11:30-12:00

Comparison of multiplatform technologies for mobile application development

Speaker

Michał Ankiersztajn

11:30-12:00

Development of a model of the electric field distribution inside the human brain

Speakers

Konrad Trusiewicz, Mikołaj Guryn, Zuzanna Gaik

11:30-12:00 Selected methods in N-body simulations

Speaker

Aleksy Bałaziński

11:30-12:00

User experience laws: a literature review and practical examples based on DoorCE project

Speaker

Jerzy Balcer

11:30-12:00 Blazor WebAssembly and React comparison

Speaker

Antoni Olszewski

11:30-12:00

Comparative Analysis of Continuous Software Delivery Tools Using Github Actions and Jenkins as Examples

Speaker

Paweł Prokopiuk

11:30-12:00

Badania i Implementacja Innowacyjnego Systemu Zasobnika Energii Współpracującego z Odnawialnymi Źródłami Energii INNOSTOR dla Zrównoważonego Rozwoju na Politechnice Warszawskiej

Speakers

Jakub Ćwiek, Jan Kowalik, Ryszard Kucharski

11:30-12:00

Flutter vs. React for Web Applications: A Comparative Benchmark Study of **Performance Metrics and Developer Experience**

Speaker

Jakub Witczak

11:30-12:00 BBot - Behavioral reinforced learning bot to play blood bowl

Speakers

Bartosz Nowicki, Karol Kociołek, Wiktor Wołek

11:30-12:00 Overview of Communication Mechanisms Adopted in Modern Systems

Speakers

Jakub Szczygielski, Michał Żdanuk

11:30-12:00 Wpływ facylitacji na efektywność spotkań w projektach IT

Speaker

Darya Vasilchyk

11:30-12:00 Low-cost, home-made Quantum Computer

Speaker

Hubert Kołcz

11:30-12:00

A Survey of Consensus Algorithms in Distributed Ledger Technology for Internet of Things

Speaker

Paweł Podgórski

11:30-12:00

Comparison of the Performance and Effectiveness of Hashing Algorithms

Speaker

Konrad Zilinski

11:30-12:00

Wpływ stopnia sprzężenia klas na czas wprowadzenia zmian - badanie empiryczne

Speaker

Dawid Pura

11:30-12:00

Machine Learning-Based Examination of ESG Factors in Stock Predictions

Daniel Stańkowski, Daniel Ślusarczyk, Paweł Tęcza

11:30-12:00

Threat Detection in IIoT Networks through Deep Packet Inspection and Machine **Learning Mechanisms**

12:00	Speaker Hubert Masłowski
12:00 13:00	Break / Voting Ends Break Location: Stara Kotłownia, SK 108, Warsaw University of Technology, Main Campus
13:00	Closing: Awards and Closing Session Location: Stara Kotłownia, SK 108, Warsaw University of Technology, Main Campus Convener: Wlodzimierz Dabrowski