

Towards an Understanding of Artificial Intelligence via a transparent, open and explainable perspective

HORIZON TMA MSCA Doctoral Networks / HORIZON-MSCA-2023-DN-01 / grant
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Summer school on sensor fusion – SUT, Gliwice, Poland

20.07.2026 (Monday)

10:00 – 13:00 AEI Faculty, Akademicka 16, Gliwice / Auditorium F

TUAI Associated Partner Day - Lviv Polytechnic National University (LPNU)

10:00 PhD, Assoc. Prof. **Olena Pavliuk** (LPNU) – **Presentation of Lviv Polytechnic National University**

10:15 PhD, Assoc. Prof. **Oksana Ivanytska**, Head of the LPNU International Office – Online opening remarks: Strengthening International Academic Cooperation and Doctoral Mobility between LPNU and European Partners

10:30 PhD, Assoc. Prof. **Tetiana Shestakevych** (LPNU) - *AI-Assisted Scoping for Multimodal VR Therapy: Establishing a Framework for Clinical Decision Support Systems*

11:00 PhD, Assoc. Prof. **Oleksandr Muliarevych** (LPNU) - *Real-Time Decision-Making in Distributed Systems*

11:30-11:45 coffee break

11:45 PhD **Oleh Basystiuk** (LPNU) - *Multimodal Data Fusion Approaches in Intelligent Systems*

12:15 PhD, Assoc. Prof. **Olena Pavliuk** (LPNU/SUT) - *Human-Centric Sensor Fusion and Federated Learning for Energy-Aware Multi-Agent Control of Industrial Mobile Robots*

13:00 -14:00 lunch break

14:00 – 17:30 AEI Faculty, Akademicka 16, Gliwice / Auditorium F

14:00 **PhD Mühenad Bilal** (Technische Hochschule Ingolstadt, Germany) - *CNN-Based Classification of Optically Critical Cutting Tools with Complex Geometry - cooperation between science and industry in Germany*

16:00-16: 15 coffee break

LPNU - Student's Projects Presentations

16:15 **Olena Litovska** (LPNU) - Wearable Sensors, PPG, Motion Artifact Removal, Human Activity Recognition, Deep Learning, Heart Rate Estimation

16:30 **Anastasiia Zabolotna (LPNU)** *Lightweight Multimodal Fusion of PPG-Derived HRV and Motion Data for Sleep Stage Classification on Wearable Devices*

16:45 **Nikita Morkva** (LPNU) - *Sensor Fusion for Time-Series Feature Engineering in AGV Battery Forecasting*

17:00 **Ivan Hrytsev** (LPNU) - Sensor Fusion-Oriented Feature Engineering and Temporal Modeling for Voltage Prediction in AGV Systems

22.07.2026 (Wednesday)

10:00 – 13:00 AEI Faculty, Akademicka 16, Gliwice / Auditorium F

10:00 – 12:00 Key note lecture - **Prof. Jean-Charles Lamirel**, University of Strasbourg, France

12:00 **Donato Cerciello** (UPM) - *Explainable Time Series Analysis: Integrating a Neural Network and Visual Analytics for Pattern Discovery, Representation Learning, and Anomaly Detection*

12:30 **Leonardo Schiavo** (UPM) - *Enhancing time series analysis through transfer learning, pre-trained models and self-supervised learning*

13:00 -14:00 lunch break

14:00 – 18:00 AEI Faculty, Akademicka 16, Gliwice / Auditorium F

MSCA DN Doctoral Candidates' Research Presentations

14:00 **Milad Jafari** (UNIOVI) - *Reliable and Explainable AI solutions for chronic diseases*

14:30 **Juan Camilo España** (UNIOVI) - *Personalized Health Recommendation Systems Powered by Large Language Models*

15:00 **Pi-Wei Chen** (SUT) - *Enhancing Perception Accuracy through Collaborative Sensor Fusion Framework in Autonomous Systems*

15:30-15: 45 coffee break

15:45 **Alexandre Niyomugaba** (SUT) - *GPU-accelerated Edge computing for Federated Learning reasoning in industrial environments*

16:15 **Myroslav Mishchuk** (SUT) - *Explainable Artificial Intelligence for internal logistics systems in green manufacturing*

17:00 - 18:00 **Panel: Sustaining AI Doctoral Training and Research Mobility in Europe: Challenges, Models and Continuity**

23.07.2026 (Thursday)

10:00 – 13:00 AEI Faculty, Akademicka 16, Gliwice / Auditorium F

10:00 Key note lecture - **Prof. Przemysław Biecek**, Politechnika Warszawska - *Risks in AI systems, including ethical issues as well as risks related to technical debt and the lack of model interpretability.*

11:00 - 11:15 coffee break

11:15 – 12:45 Group exercises (analysing potential AI-related risks and challenges in selected research papers or projects)

13:00 -14:00 lunch break

14:00 – 17:15 AEI Faculty, Akademicka 16, Gliwice / Auditorium F

14:00 – 15:00 AI Ethics a summary session presenting the outcomes of the group work.

MSCA DN Doctoral Candidates' Research Presentations – Part 2

15:00 **Lingyu Qiu** (UNINA) - *Privacy-Preserving Federated Generative Models for Decentralised Data Synthesis*

15:30 **S M Asiful Huda** (UNINA) - *Decentralised Graph Neural Networks: Adaptation, Training and Interpretability in Federated Environments*

16:00 - 16:15 coffee break

16:15 **Makhmoor Fiza Murk** (UNINA) - *Enhancing NLP Capabilities through Federated Learning and GNNs*

16:45 **Dina Tri Utari** (NTNU) - *Enhancing Trustworthy AI Integration in Safety-Critical Systems*

17:15 **Athanasia Kollarou** (NTNU) - *Sustainable Real-time Anomaly Detection for Practical Applications*



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