

**Program
of the Modern Machine Learning Technologies Workshop (MoMLeT 2024)**

Central European Summer Time – CEST

May 31 2024
St. Metropolitan Andrey Street 5, Lviv, Ukraine
4th building at LPNU, room 124

12.00 – 13.00
Workshop Opening and Plenary Section
Session Chair: **Michael Emmerich**

Join Zoom Meeting:
<https://us04web.zoom.us/j/8432530863?pwd=bFkyZGszbUUra0hqbxIIvIldatGR5dz09&omn=75465836938>
Meeting ID: 843 253 0863
Passcode: 804722

12.20 – 12.40	<i>Yingije Fan.</i> Multi-objective hybrid vehicle routing problems with multiple time Windows
---------------	--

12.40 – 13.00	<i>Vitor Basto Fernandes.</i> Multicriteria optimization benchmarking knowledge engineering
---------------	---

13.00 – 17.00
Main Workshop Section
Session Chair: **Michael Emmerich**

Join Zoom Meeting:
<https://universiteitleiden.zoom.us/j/67192026660?pwd=K7noXxGIYoU3AIUZh8oAMtEhPS37Rd.1>
Meeting ID: 671 9202 6660
Passcode: 0sn6VQ*r

13.00 – 13.20	<i>Dmytro Klyushin, Oleksandr Maistrenko.</i> Influence of chaos on activation functions in Hopfield networks
---------------	---

13.20 – 13.40	<i>Victoria Vysotska, Vasyl Lytvyn, Mariia Nazarkevych, Serhii Vladov, Ruslan Yakovliev, Alexey Yurko.</i> Training neural network method modification for forward error propagation based on adaptive components
---------------	---

13.40 – 14.00	<i>Oleksii Turuta, Iryna Afanasieva, Nataliia Golian, Vira Golian, Kostiantyn Onyshchenko, Daniil Suvorov.</i> Audio processing methods for speech emotion recognition using machine learning
---------------	---

14.00 – 14.20	Coffee Break
---------------	---------------------

14.20 – 14.40	<i>Sergey Subbotin, Andrii Oliinyk, Tetiana Kolpakova, Vladyslav Perekuda, Danylo Borovyk.</i> Apple leaf diseases detection using convolutional neural networks
---------------	--

14.40 – 15.00	<i>Aleksandr Gozhyj, Irina Kalinina, Valerii Dymo.</i> Application of convolutional neural networks for detection of damaged buildings
---------------	--

15.00 – 15.20	<i>Yuriy Kondratenko, Oleksiy Kozlov, Yue Zheng, Jianjun Wang, Vitalii Kuzmenko, Anna Aleksieieva.</i> Bio-inspired optimization of fuzzy control system for inspection robotic platform: comparative analysis of hybrid swarm methods
---------------	--

15.20 – 15.40	<i>Vladyslav Kotsovsky.</i> Synthesis of multithreshold neural network classifier
---------------	---

15.40 – 16.00	Coffee Break
---------------	---------------------

16.00 – 16.20	<i>Vasyl Lytvyn, Ivan Peleshchak, Roman Peleshchak, Iryna Shakleina, Nazarii Mozol, Dmytro Svysych.</i> Object image recognition using multilayer perceptron combined with Singular value decomposition
16.20 – 16.40	<i>Myroslav Komar, Khrystyna Lipianina-Honcharenko, Valentyn Domanskyi, Nazar Melnyk.</i> Regression-based method for real-time solar power plant efficiency forecasting
16.40 – 17.00	<i>Victoria Vysotska, Roman Romanchuk, Mariia Nazarkevych, Oleksandr Lavrut, Tetiana Lavrut, Maksym Pysarchuk.</i> Automatic target recognition module development for fire control system based on machine learning
June 1 2024 St. Metropolitan Andrey Street 5, Lviv, Ukraine 4th building at LPNU, room 124	
10.00 – 14.00 Main Workshop Section Session Chair: Michael Emmerich	
Join Zoom Meeting: https://universiteitleiden.zoom.us/j/67192026660?pwd=K7noXxGIYoU3AIUZh8oAMtEhPS37Rd.1 Meeting ID: 671 9202 6660 Passcode: 0sn6VQ*r	
10.00 – 10.20	<i>Alexander Gozhyj, Vladyslav Nechakhin, Irina Kalinina.</i> Enhancing solar panel efficiency with LSTM-based MPPT controllers
10.20 – 10.40	<i>Mykola Korablyov, Natalia Axak, Ihor Ivanisenko, Maksym Kushnaryov, Igor Kobzev.</i> Traffic sign recognition using the mask R-CNN
10.40 – 11.00	<i>Anatoliy Tryhuba, Inna Tryhuba, Oksana Malanchuk, Anna Marmulyak.</i> A deep neural network model for predicting the competitive score of social projects for community development
11.00 – 11.20	<i>Nestor Shpak, Kateryna Doroshkevych, Ihor Hrabovych.</i> Assessment of digital tools utilization in marketing activities of enterprises in Ukraine and EU countries using cluster analysis method
11.20 – 11.40	<i>Sergey Bushuyev, Denis Bushuiev, Dmitriy Kravtsov, Nikolay Poletaev, Mykola Malaksiano.</i> Machine learning model for house price predicting based on natural language text data analysis
11.40 – 12.00	<i>Anrii Berko, Vladyslav Alieksieiev, Artur Dovbysh.</i> Performance evaluation and analysis with code benchmarking and generative AI
12.00 – 12.20	Coffee Break
12.20 – 12.40	<i>Bohdan Melnyk, Serhiy Sveleba, Ivan Katerynychuk, Ivan Kuno, Volodymyr Franiv.</i> Fractal structure of training of a three-layer neural network
12.40 – 13.00	<i>Krzysztof Fidelis, Mykhailo Luchkevych, Yaroslav Teplyi.</i> Preliminary statistical analysis of amino acid sequence embeddings of proteins
13.00 – 13.20	<i>Khrystyna Mykich, Iryna Zavushchak, Andrii Savka.</i> Predictive maintenance for automotive vehicle engines in military logistics
13.20 – 13.40	<i>Anatoliy Sachenko, Taras Lendiuk, Khrystyna Lipianina-Honcharenko, Vasyl Koval, Grygoriy Hladiy, Yurii Halias.</i> Evaluation of ensemble machine learning models for movie recommendation systems
13.40 – 14.00	<i>Andrii Berko, Vladyslav Alieksieiev, Vladyslav Holdovanskyi.</i> Determination-based correlation coefficient
14.00 – 14.20	Coffee Break
14.20 – 15.00	Workshop Closing