# Preface: computational intelligence application workshop<sup>®</sup>

Vasyl Teslyuk<sup>1,\*†</sup>, Natalia Kryvinska<sup>2,†</sup>, Aneta Poniszewska-Maranda<sup>3,†</sup>, Vasyl Lytvyn<sup>1,†</sup> and Lyubomyr Chyrun<sup>4,†</sup>

### **Abstract**

This document is the preface of the Computational Intelligence Application Workshop (CIAW-2025), held on September 26-27, 2025, Lviv, Ukraine (https://science.lpnu.ua/ciss-2025/workshop-ciaw-2025).

### **Keywords**

Computational Intelligence, Machine Learning, Smart Systems, Data Analytics

### 1. Preface

The Computational Intelligence Application Workshop (CIAW-2025) continues its mission to provide an international forum for presenting and discussing recent advances in Computational Intelligence and its applications to real-world problems. The workshop promotes collaboration among researchers, practitioners, and educators in areas such as machine learning, data mining, artificial neural networks, natural language processing, computer vision, optimization, and intelligent decision-support systems.

This year, the Organizing Committee received 51 submissions, of which 24 papers were accepted for presentation and publication after a thorough peer-review process.

The topics of accepted papers span a wide spectrum of current research areas, including but not limited to:

- Artificial Intelligence and Computational Intelligence;
- Neural and Deep Learning Models;
- Computer Vision and Image Processing;
- Natural Language Processing and Text Mining;
- Smart Systems and Internet of Things;
- Optimization and Meta-heuristic Algorithms;
- Forecasting, Classification, and Data-Driven Decision Support;
- Cybersecurity and Information Protection;
- Intelligent Systems for Education, Medicine, and Industry.

<sup>© 0000-0002-5974-9310 (</sup>V. Teslyuk); 0000-0003-3678-9229 (N. Kryvinska); 0000-0001-7596-0813 (A. Poniszewska-Maranda); 0000-0002-9676-0180 (V. Lytvyn); 0000-0002-9448-1751 (L. Chyrun)





<sup>&</sup>lt;sup>1</sup> Lviv Polytechnic National University, Stepana Bandera Str. 12, Lviv, 79013, Ukraine

<sup>&</sup>lt;sup>2</sup> Comenius University Bratislava, Slovakia

<sup>&</sup>lt;sup>3</sup> Lodz University of Technology, Poland

<sup>&</sup>lt;sup>4</sup> Ivan Franko National University, Universytetska St, 1, Lviv, Lviv Oblast, 79000, Ukrain

<sup>\*</sup>CIAW-2025: Computational Intelligence Application Workshop, September 26-27, 2025, Lviv, Ukraine

¹\* Corresponding author.

<sup>&</sup>lt;sup>†</sup>These authors contributed equally.

<sup>☑</sup> vasyl.m.teslyuk@lpnu.ua (V. Teslyuk); natalia.kryvinska@uniba.sk (N. Kryvinska); aneta.poniszewskamaranda@p.lodz.pl (A. Poniszewska-Maranda); vasyl.v.lytvyn@lpnu.ua (V. Lytvyn); lyubomyr.chyrun@lnu.edu.ua (L. Chyrun)

The workshop language was English. The Computational Intelligence Application Workshop took the form of an oral presentation by peer-reviewed individual papers. The papers were distributed among 70 external reviewers from France, Germany, The Netherlands, the United States, the United Kingdom, India, Moldova, Czech Republic, Poland, Bulgaria, Portugal, Serbia, Slovenia, Finland and Ukraine. Each paper was reviewed by 3–6 independent reviewers, ensuring the scientific quality of the proceedings.

## 2. Acknowledgements

The Computational Intelligence Application Workshop (CIAW-2025) would not have been possible without the support of many people.

First of all, we would like to thank all the authors who submitted papers to the Workshop and thus demonstrated their interest in the research problems within our scope.

We are very grateful to the members of the Program Committee for providing timely and thorough reviews and for their cooperation in performing additional review work when needed.

We would also like to thank the Organizing Committee of the conference, whose devotion and efficiency made this instance of the Computational Intelligence Application Workshop a highly interesting and effective scientific forum. Special thanks go to the Workshop Chairs, the Program Committee, and all Reviewers for their diligence in selecting papers and ensuring their high scientific quality.

## **Committees**

### **General Chair**

Vasyl Teslyuk, Lviv Polytechnic National University, Ukraine

### Co- Chair

Natalia Kryvinska, Comenius University Bratislava, Slovakia Aneta Poniszewska-Maranda, Lodz University of Technology, Poland Vasyl Lytvyn, Lviv Polytechnic National University, Ukraine Lyubomyr Chyrun, Ivan Franko National University, Ukraine

# **Proceedings Chair**

Vasyl Teslyuk, Lviv Polytechnic National University, Ukraine Mariana Seneta, Lviv Polytechnic National University, Ukraine

### **Presentations Chair**

Vasyl Teslyuk, Lviv Polytechnic National University, Ukraine Mariana Seneta, Lviv Polytechnic National University, Ukraine Andrii Pukach, Lviv Polytechnic National University, Ukraine

# **Program Committee**

Vasyl Teslyuk, Lviv Polytechnic National University, Ukraine
Natalia Kryvinska, Comenius University Bratislava, Slovakia
Aneta Poniszewska-Maranda, Lodz University of Technology, Poland
Ivan Tsmots, Lviv Polytechnic National University, Ukraine
Ricardo J. Rodríguez, University of Zaragoza, Spain
Vitaliy Yakovyna, University of Warmia and Mazury in Olsztyn, Poland
Mariia Nazarkevych, Ivan Franko National University, Ukraine
Lyubomyr Chyrun, Ivan Franko National University, Ukraine
Vasyl Lytvyn, Lviv Polytechnic National University, Ukraine
Aleksandr Gozhyj, Petro Mohyla Black Sea National University, Ukraine
Oleh Berezkyi, West Ukrainian National University, Ukraine
Irina Kalinina, Petro Mohyla Black Sea National University, Ukraine

# **Local Organization Committee**

Roman Tkachenko, Lviv Polytechnic National University, Ukraine Mariana Seneta, Lviv Polytechnic National University, Ukraine Roman Sydorenko, Lviv Polytechnic National University, Ukraine Iryna Gado, Lviv Polytechnic National University, Ukraine Anastasiya Doroshenko, Lviv Polytechnic National University, Ukraine Iryna Kazymyra, Lviv Polytechnic National University, Ukraine Andrii Pukach, Lviv Polytechnic National University, Ukraine

# **Sponsors**



### Lviv Polytechnic National University, Ukraine

http://www.lp.edu.ua/en



### Comenius University Bratislava, Slovakia

https://uniba.sk/en/



### **Lodz University of Technology, Poland**

https://p.lodz.pl/en



## University of Zaragoza, Spain

https://www.unizar.es/



### Ivan Franko National University

https://lnu.edu.ua/en/

# **Informational Partners**









# **Agiliway**

https://www.agiliway.com/ukua/golovna/

### **Embrox Solutions**

https://embrox.com/

### **TetaLab**

https://www.tetalab.com/ua

### **Vector Software**

https://vector-software.com/