Preface: Modern Machine Learning Technologies and Data **Science Workshop**

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Abstract

This document is the preface of the 5th International Workshop on Modern Machine Learning Technologies and Data Science (MoMLeT+DS 2023), June 3, 2023, held in Lviv, Ukraine.

1. Preface

The main purpose of the Modern Machine Learning Technologies and Data Science Workshop is o provide a forum for researchers to discuss models for machine learning, multicriteria decision analysis and multi-objective optimization, and their real-life applications. In MoMLeT&DS Workshop, we encourage the submission of papers on machine learning, decision making, multi-objective optimization and multicriteria decision analysis areas. The MoMLeT+DS Workshop is soliciting literature review, survey and research papers comments including, whilst not limited to, the following areas of interest:

- Regression analysis; •
- Deep learning; •
- Gradient Boosted Trees; •
- Support Vector Machines; •
- Bayesian networks; •
- Unsupervised learning for clustering; •
- MCDM Theory; •
- Multi-objective Optimization; •
- Group Decision Making;
- Multi-attribute Utility or Value Theory;
- Behavioral Issues in Decision Making;
- Preference Modelling;
- Applications of MCDM and Optimization.

The language of Modern Machine Learning Technologies and Data Science Workshop is English.

The Modern Machine Learning Technologies and Data Science Workshop took the form of oral presentation by peer-reviewed individual papers. The papers were distributed among 32 external reviewers from The Netherlands, Germany, France, United Kingdom, China, Austria, Czech Republic, Portugal, India, Poland, Ukraine and Ukraine. The total number of reviews is 177. To take more correct

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decision regarding the acceptance or rejection the papers got 2-5 reviews. The peer review statistics is as follows: 32 papers (2 reviews), 22 papers (3 reviews), 8 papers (4 reviews), and 3 papers (5 reviews).

The Modern Machine Learning Technologies and Data Science Workshop gathered participants from different countries including Germany, Poland, Switzerland, Israel, Algeria, France, India, Kazakhstan, Nigeria and Ukraine.

This year Organizing Committee received 64 submissions, out of which 43 were accepted for presentation as a regular papers. These papers and extended abstracts were published in this Volume I of the 5th International Workshop on Modern Machine Learning Technologies and Data Science (MoMLeT+DS 2023) proceedings.

2. Acknowledgments

The Modern Machine Learning Technologies and Data Science Workshop 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 Modern Machine Learning Technologies and Data Science Workshop and thus demonstrated their interest in the research problems within our scope. We are very grateful to the members of our Program Committee for providing timely and thorough reviews and, also, for being cooperative in doing additional review work. We would like to thank the Organizing Committee of the workshop whose devotion and efficiency made this instance of Modern Machine Learning Technologies and Data Science Workshop a very interesting and effective scientific forum. We would like to thank Modern Machine Learning Technologies and Data Science Workshop Chairs, as well as Program Committee and all Reviewers, for their diligence in selecting the papers and ensuring their high scientific quality.