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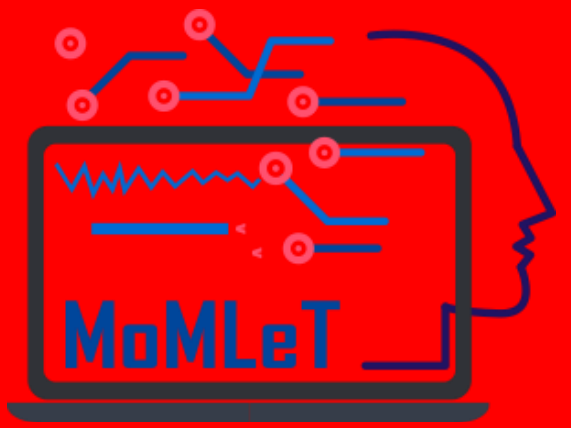

Modern Machine Learning Technologies and Data Science Workshop

Workshop Proceedings of the 9th International Conference on "Mathematics. Information Technologies. Education", MoMLeT&DS Workshop 2020

Lviv-Shatsk, Ukraine
June, 2020

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This volume represents the proceedings of the Workshop of the 9th International Conference on “Mathematics. Information Technologies. Education”, with Posters and Demonstrations track, of the 2nd International Workshop of Modern Machine Learning Technologies and Data Science, held in Lviv-Shatsk, Ukraine, in June 2020. It comprises 38 contributed papers that were carefully peer-reviewed and selected from 55 submissions. The volume opens with the abstracts of the keynote talks. The rest of the collection is organized in two parts. Parts I contain the contributions to the Main MoMLeT&DS Workshop tracks, structured in one topical sections: Modern Machine Learning Technologies and Data Science.

Preface

It is our pleasure to present you the proceedings of the MoMLeT&DS Workhop of the 9th International Conference on "Mathematics. Information Technologies. Education", the first edition of the Modern Machine Learning Technologies and Data Science Workshop, held in Lviv-Shatsk (Ukraine) on June 2-3, 2020.

The main purpose of the MoMLeT&DS Workhop is to provide a forum for researchers to discuss models for machine learning, multicriteria decision analysis and multiobjective optimization, and their real-life applications. In MoMLeT&DS 2020, is encourage the submission of papers on machine learning, decision making, multiobjective optimization and multicriteria decision analysis areas. Novel applications of these methods to real world problems are welcome.

The conference 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;
- Multiobjective Optimization;
- Group Decision Making;
- Multiattribute Utility or Value Theory;
- Behavioral Issues in Decision Making;
- Preference Modelling;
- Applications of MCDM and Optimization.

The language of MoMLeT&DS Conference is English.

The conference took the form of oral presentation by invited keynote speakers plus presentations of peer-reviewed individual papers. There was also an exhibition area for poster and demo sessions. A Student section of the conference for students and PhD students run in parallel to the main conference.

This year Organizing Committee received 55 submissions, out of which 38 were accepted for presentation as a regular papers. The papers are submitted to the following tracks: Regression analysis (7 papers); Deep learning (9 papers); Gradient Boosted Trees (4 papers); Support Vector Machines (2 papers); Bayesian networks (7 papers); Unsupervised learning for clustering (9 papers); MCDM Theory (3 papers); Multiobjective Optimization (5 papers); Group Decision Making (3 papers); Multiattribute Utility or Value Theory (2 papers); Behavioral Issues in Decision Making (3 papers); Preference Modelling (5 papers); Applications of MCDM and Optimization (1 papers).

These papers and extended abstracts were published in this Volume of MoMLeT&DS Workshop 2020 proceedings.

The conference 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 MoMLeT&DS 2020 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 conference whose devotion and efficiency made this instance of MoMLeT&DS a very interesting and effective scientific forum.

June, 2020

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