Preface: Proceedings of the 27th International Conference on Information Technology
(Information Society and University Studies, IVUS 2022)

The 27th International Conference on Information Technology (Information Society and University Studies, IVUS 2022) was organized to stimulate research and cooperation among early-stage researchers. A traditional Conference on Information Technology (Information Society and University Studies) is the continuation of the annual conference series organized in succession by three universities: Vytautas Magnus University, Kaunas University of Technology and Vilnius University Kaunas Faculty. The event was started in 1995 and still carries tremendous importance due to its relevance in discussions on recent trends and advancements in this rapidly expanding research area.

IVUS 2022 was held online on May 12, 2022. The conference invited researchers working in information technology and related areas to discuss novel ideas, share knowledge and experiences in their area of interest, and present their research results on a wide range of topics: Artificial Intelligence, Bioinformatics, Computer Graphics, Databases, Formal Analysis and Design Methods, Human-Computer Interaction, Information Retrieval, Modelling and Simulation, Security, Signal Processing, Mathematical Modelling, Probability Theory and Statistics, Natural Language Processing, to mention a few. Theorists and practitioners in the field were also welcome at the event.

We received 27 submissions this year and 24 papers were accepted for presentation after the review. Out of the 24 presented papers, 22 papers were selected for publication. A peer review was carried out by a team of experts in the field. Thus, this proceedings volume is a collection of the 22 papers presented in different conference sessions.

The event consisted of an invited talk and two parallel sessions featuring presentations by both national and international speakers. IVUS 2022 brought together students, postgraduates and young researchers to share their work and served as a platform for them to establish contacts with other researchers from different countries: Lithuania, Poland, Ukraine, Turkey, Uzbekistan, Austria, USA, Georgia, India. The conference highlighted new challenging research topics covering different machine learning tasks, image analysis, simulation, neural networks applications, synthetic data generation, natural language processing tasks, among others.

The Organizing Committee would like to sincerely thank the presenters for their willingness to share their latest innovative contributions to the research community. We would also like to take the opportunity to express our gratitude to the members of the International Program Committee, the Local Organizing Committee, and the reviewers, who contributed so invaluably to the success of the event. Without all their efforts and involvement, IVUS 2022 would not have been possible.

Danguolė Kalinauskaitė, Tomas Krilavičius

On behalf of the editors
INTERNATIONAL PROGRAM COMMITTEE

Tomas Krilavičius, Vytautas Magnus University, Lithuania
Audrius Lopata, Kaunas University of Technology, Lithuania
Ilona Veitaitė, Vilnius University, Kaunas Faculty, Lithuania
Marcin Woźniak, Silesian University of Technology, Poland
Christian Napoli, Sapienza University of Rome, Italy

LOCAL ORGANIZING COMMITTEE

Chairman

Tomas Krilavičius, Vytautas Magnus University

Members

Andrius Davidsonas, Vytautas Magnus University
Rūta Juozaitienė, Vilnius University
Dovilė Kuizinienė, Vytautas Magnus University
Simona Staskevičiūtė, Vytautas Magnus University