

Preface

to the Proceedings of the International Conference Statistics and Machine Learning in Electronics

Dear colleagues,

The *International Conference Statistics and Machine Learning in Electronics* is organized according to the scientific project “Exploration and application of statistics and machine learning in electronics”, supported by Bulgarian National Science Fund under contract number KII-06-H42/1. It was conducted in hybrid format on 12-13 May 2022 as the host organization was Technical University of Sofia, Sofia, Bulgaria.

The aim of the forum was to gather together students and experienced researchers in order to report and discuss contemporary solutions, best practices, and advancements regarding the application of machine learning techniques in the area of Electronics. It also stimulates international cooperation in order to be extended for obtaining new knowledge, for exchanging research ideas and promoting scientific results.

The participated authors were from University of Mostar, Bosnia and Herzegovina, University of Split, Croatia, University of Nis, Republic of Serbia, University of the Basque Country, Spain, TECNALIA, Spain, University of Applied Sciences Offenburg, Germany, Changshu Institute of Technology, China, Bulgarian Academy of Sciences and Technical University of Sofia, Bulgaria as the presented topics were from applications of statistics and machine learning in inertial-sensor based hand gesture recognition, simultaneous localization and mapping system, rehabilitation system for cerebral palsy through modeling a system that predicts value of one pore pressure cell, investigation the dimension reducing and dynamic pruning to improving the production process of electronic components, enhancing the vendor's quality management assurance in automotive electronic products and organizing the supply chain management of electronic industry.

Our great keynote speakers present the current research, important issues and future directions for development. The talk of **prof. Petia Georgieva** from University of Aveiro, Portugal was about machine learning in industry - from model-driven to data-driven approach. **Prof. Stefan Hensel**, University of Applied Sciences in Offenburg, Germany discusses application of artificial intelligence in machine vision and autonomous systems applications.

The publication of the accepted papers in an open access journal *Complex Control Systems* of Bulgarian Academy of Sciences gives a nice opportunity for spreading the project mission, goals and results worldwide and we believe that they will reach all colleagues interested in this new and progressive topic.

We can say that the conference was fruitful, connecting theory and practices and allowing collaboration among experienced and inexperienced scientists.

ICSML 2022 Organizing Committee

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Malinka Ivanova, Technical University of Sofia

Marin Marinov, Technical University of Sofia

Stefan Hensel, University of Applied Sciences Offenburg, Germany

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