

## Foreword

Welcome to the International Conference on Computer Science and Information Technologies (CSIT-2023), which is the fourteenth in a series of conferences held every two years in Yerevan, the capital of Armenia. The conference has been held since 1997 and aims to present new results and challenges facing computer science and information technologies.

The conference is dedicated to the 80th anniversary of the National Academy of Sciences of the Republic of Armenia, which significantly contributed to the formation and development of computer science, creating the prerequisites for forming a scientific and educational environment in Armenia.

The conference is held during the years when these areas are most in demand and affect almost all areas of our lives. Constantly evolving, they occupy an important place in our lives.

This year, around 90 reports were selected to be presented at the conference. We are grateful to all conference participants who responded to our invitation. The conference will be hosted by the Institute of Informatics and Automation Problems of the National Academy of Sciences of the Republic of Armenia and the National Polytechnic University of Armenia. The main topics of CSIT-2023 are: Computational Models and Their Applications, Artificial Intelligence and Machine Learning, Telecommunications and Networking, Cloud and High-Performance Computing, Big Data and the Internet, Pattern Recognition and Image Processing, Discrete Mathematics and Combinatorial Analysis, Technological Applications, Information Security and Information Theory.

The conference presents reports of participants from Armenia, Australia, Belarus, Canada, France, Georgia, Hungary, Italy, Iran, Lithuania, Russia, Switzerland, Ukraine, and the USA.

CSIT-2023 starts with a plenary session followed by breakout sessions and workshops. The conference program includes three invited presentations: "Multidimensional Data Visualization: Program Methods and Applications in Economics", "On the Identification of Almost Monotonic Boolean Functions", High-performance computing, 3D docking, AI and GPU pipelines to address challenges in the biotech and pharmaceutical industry".

In addition, two workshops will be held in conjunction with the conference:

The "Digitalization and Recognition of Historical Heritage" workshop aims to consolidate the community of specialists dealing with the problems of computer processing of images of cultural heritage objects and related issues. The main objective of the workshop "Cybersecurity, Digital Management, and Educational Technologies" is to create an international and interdisciplinary exchange platform in cybersecurity and digital technologies for the spheres of education and management.

Thanks to many years of fruitful international cooperation, the works on establishing a National Supercomputing Centre of Armenia are being completed. Within the framework of the conference, a round table entitled "French-Armenian Collaboration in High-Performance Computing: Past Development and Future Perspective" will be organized to present the speeches of leading experts and researchers, and disseminate their experience and achievements.

We would like to thank all the conference participants for their contributions and hope that they will have the opportunity to get to know Armenia better. We thank the organizing team for providing the necessary and favourable conditions for the conference. We wish everyone a productive work in Yerevan.

*Yuri Shoukourian,*

*Conference Chairman*