

RIVF'23 Message from Host University

Distinguished guests, experts, ladies and gentlemen!

As a representative for the leadership of the host university, PTIT, I would like to welcome you all to the RIVF'23 International Conference on Computing and Communication, organized by PTIT with patrons of the Institute of Electrical and Electronics Engineers (IEEE), IEEE Vietnam Section and the Ministry of Information and Communications.

As the unique university under the management of the Ministry of Information and Communications and founded in 1997, PTIT has become a leading, visionary and fast-growing university in Vietnam and pioneering in digital transformation. Over the past 26 years, PTIT has demonstrated excellence in academic performance with focuses to improve the quantity and quality of research output by establishing many research centers and cooperating with international scholars.

It is a great honor for PTIT to be the organizer of RIVF'23 among RIVF series which has become a major scientific event for researchers in the field of Computing and Communication Technologies, not only in Vietnam but also worldwide. RIVF'23 impressively received 196 papers by 503 authors from 23 different countries. With 101 excellent papers accepted to present, RIVF aims to offer an opportunity for researchers and innovators to discuss problems, share results, identify emerging issues, and establish academic collaborations in various disciplines of computing and communications.

On behalf of the host institution, I would like to express my sincere appreciation to our honorable patrons: MIC, IEEE and IEEE Vietnam for the great efforts in supporting this conference. I would also like to send my special thanks to conference chairs, committees, reviewers, speakers, authors and participants around the world for your contributions and interest. It is through the collective efforts of these individuals and organizations that we are able to bring you a great event. I believe that you will have an interesting and fruitful conference in Hanoi. I really look forward to welcoming all of you to PTIT campuses and hope that this conference will start a long-term partnership between you and our university.

My best wishes for the success of our conference, and health to all of you.

Thank you!

Message from the RIVF'23 Technical Program Chairs

Started in 2003, RIVF (Research, Innovation and Vision for the Future) has become a major scientific event for researchers in the field of Computing and Communication Technologies, not only in Vietnam but also worldwide. RIVF has become an flagship IEEE conference in Vietnam that attracts a large number of universities in Vietnam and neighboring region since it was formed by The IEEE Vietnam Section in 2007.

RIVF'23 is the 17th conference in this series aiming at fostering an international forum for scientific and technological exchange among Vietnamese and worldwide scientists, researchers, innovators and engineers in the fields of information technology, computing, communications and related areas; establishing academic collaborations and gathering high-quality research contributions. For 2023, PTIT hosts the conference from 23 to 25 December, in Hanoi, Vietnam. RIVF'23 solicits original research contributions from six regular tracks and one industrial session, including: 1) Language and Speech Processing Image, 2) Computer Vision, Pattern Recognition, 3) Communications, Networking, Internet of Things, Cloud Computing, 4) Cyber-Security, Cryptography, Blockchain & applications 5) AI, Data Science, Big Data Analytics, Smart Computing 6) Software Engineering, Information System, Computational Modelling and 7) Industrial Session

This year, we received 196 submissions from 23 countries across all regions of the world. The top four country contributors are Vietnam, Japan, Taiwan, USA, and Germany. All submissions went through a rigorous review process, where each submission received at least two anonymous reviews. In the end, the Technical Program Committee was able to select 101 high-quality papers to include in the conference proceedings, which corresponds to an acceptance rate of 51%.

Over the three days of the conference, RIVF'23 technical program is organized into 03 keynotes, 15 regular sessions, 02 poster sessions, and 01 Pannel discussion. RIVF'23 is honored to host three keynote speakers:

- Dr. An Chen, Vice President of Engineering at Qualcomm Technology Licensing (QTL): Visions and Research Directions on the Path to 6G
- Prof. Tomoko Matsui, The Institute of Statistical Mathematics, Tokyo: Data-Driven Framework for Uncovering Hidden Control Strategies in Evolutionary Analysis
- Prof. Tru Cao, Department of Biostatistics and Data Science, The University of Texas Health Science Center at Houston School of Public Health, Statistics, Machine Learning, and Data Science: A Historical Review and a Look to the Future

We would like to thank you all the speakers and audience for their contributions and discussions at RIVF'23. We hope that the proceedings of RIVF'23 will be a great source of research papers for future references.

RIVF'22 Program chairs

- Phan Thi Ha Duong, IM – VAST, Vietnam
- Vo Nguyen Quoc Bao, PTIT, Vietnam
- Unoki Masashi, JAIST, Japan