

## Preface

The 2022 2<sup>nd</sup> International Conference on Algorithms, High Performance Computing and Artificial Intelligence (AHPCAI 2022) was successfully held during October 21<sup>st</sup> to 23<sup>rd</sup>, 2022 in Guangzhou, China (virtual conference), at the premises of Hotel Nikko Guangzhou. The conference is an annual scientific meeting starting in 2021.

As in the previous year, the main motivation of the Organizing Committee was to bring together experts, scholars, and scientists from all over the world to present their work, exchange information and establish collaboration. AHPCAI 2022 strengthened academic research and discussion, promoted the industrial cooperation of academic achievements, and facilitated future business contacts among all the participants.

The scope of the conference covered all areas of research in algorithms, high performance computing and artificial intelligence including: Approximation Algorithm, Natural Language Processing, Network Computing Technology, Image Detection Network, Car Barrier Detection, etc. The conference brought together 50 participants, primarily from China, but also from India, Malaysia, UAS, and other countries.

A three-day program of the Conference was divided into three sessions, including keynote speeches, oral presentations, and Q&A discussions. Each keynote speaker was given 30-40 minutes for keynote speeches and every presenter was given 10-15 minutes. Among them, Prof. Shaozhang Niu from Beijing University of Posts and Telecommunications, China performed a keynote speech on the title: Digital Image and its Intelligent Forgery. He first introduced to us about the digital images tampering and forgery, and the main research problems of digital images forensics. And then he discussed about the challenges of digital images forensics and prospected the future of content security for digital images, presenting us with a feast of knowledge. The insightful speeches of each keynote speakers triggered interesting discussions and a number of informal talks between all the participants.

We would like to thank all the participants in the 2<sup>nd</sup> International Conference on Algorithms, High Performance Computing and Artificial Intelligence. We would also like to thank the Organizing and Technical Program Committee, for the work they put in to organize this event. Finally, we would like to acknowledge the Institute of Electrical and Electronics Engineers, for the endeavor of all its colleagues in publishing this paper volume. We deeply appreciate their efforts in making the Conference successful.

The Committee of AHPCAI 2022

## Committee member

### Conference General Chair

Prof. Jian Yin, Sun Yat-sen University, China

### Technical Program Committee Chairs

Prof. Shaoliang Peng, Hunan University, China

Prof. Shaozhang Niu, Beijing University of Posts and Telecommunications, China

### Local Organizing Chairs

Prof. Yao Lu, Sun Yat-sen University, China

### Publication Chairs

Prof. Bin Cao, Hebei University of Technology, China

### Organizing Committee

Prof. Jumin Zhao, Taiyuan University of Technology, China

Prof. Yiyuan Xie, Southwest University, China

Prof. Yilin Wu, Guangdong University of Education, China

Prof. Xingbo Wang, IEEE Member, Foshan University, China

Assoc. Prof. Zhonghua Li, Yat-sen University/ Guangdong High Performance Computing Society, China

Assoc. Prof. Qian Tao, IEEE Member, South China University of Technology, China

Assoc. Prof. Lei Zhang, Henan University, China

Assoc. Prof. Yi Li, Wenzhou University, China

Assoc. Prof. Deqing Ding, National University of Defense Technology, China

Assoc. Prof. Dahan Wang, Xiamen University of Technology, China

Assoc. Prof. Ziyang Zhang, Hainan Tropical Ocean University, China

Assoc. Prof. Mahmoud AlShawabkeh, Guangxi Normal University for Nationalities, China

Dr. Muhammad Aslam, Wuhan University, China

Dr. Omar DIB, WENZHOUE-KEAN UNIVERSITY, China

### Technical Program Committee

Prof. Zhiheng Wu, Institute of Manufacturing, GDAS, China

Prof. Jiongcheng Li, Guangdong Planning and Designing Institute of Telecommunications Co., Ltd, China

Prof. Yong Xu, Guangzhou Institutes of Biomedicine and Health, Chinese Academy of Sciences, China

Prof. Zhi Xie, Sun Yat-sen University, China

Prof. Jiahai Wang, IEEE Senior Member, Sun Yat-sen University, China

Prof. Hongmin Cai, South China University of Technology, China

Prof. Yuedong Yang, Sun Yat-sen University, China

Prof. Xiaolin Qin, Cheng Du Information Technology of Chinese Academy of Sciences Co., Ltd, China

Dr. Ariffin NOR HAPIZA, UNIVERSITI TEKNOLOGI MARA, MALAYSIA

Dr. Aslina Baharum, Universiti Malaysia Sabah (UMS), Malaysia

Dr. Siting Chen, South China University of Technology, China

Dr. Azim Zaliha Abd Aziz, Universiti Sultan Zainal Abidin, Malaysia

Dr. Marina Yusoff, Universiti Teknologi MARA (UiTM), Malaysia

Dr. Md Khaja Mohiddin, Bhilai Institute of Technology Raipur, India

Dr. Rajeev Tiwari, University of Petroleum and Energy Studies, India