Preface

The 2022 3rd International Conference on Signal Processing and Computer Science (SPCS 2022) was successfully held in Qingdao, China from August 19 to 21, 2022 in the form of online conference. Focusing on signal processing and computer science, SPCS 2022 provided a valuable opportunity for researchers, scholars and scientists in related fields to share the latest research results and exchange their ideas.

We were delighted and honored to invite both Prof. Haibin Zhu from Nipissing University, Canada to serve as our Conference General Chair. There were 90 individuals and enterprises attending the conference. Divided into three parts, the conference agenda covered keynote speeches, oral presentations, and online Q&A discussion. Firstly, keynote speakers were each allocated 30-45 minutes to hold their speeches. Then in the oral presentations, the excellent papers we had selected were presented by their authors by turns. During the conference, six sophisticated professors were invited to address keynote speeches. Among them, Prof. Haibin Zhu, our Conference General Chair, delivered a speech on the title: E-CARGO and Role-Based Collaboration. In this speech, he examined the requirement of research on collaboration systems and technologies, talked about RBC and its model E-CARGO, reviewed the related research achievements on RBC and E-CARGO in the past years, discussed those problems that have not yet been solved satisfactorily, presented the fundamental methods to conduct research related to RBC and E-CRAGO, discovered related problems and analyzed their connections with other cutting-edge fields. Additionally, Prof. Lei Meng from Shandong University, China gave a report on the Cross-modal Inference and Heterogeneous Information Fusion for Open-domain Visual Understanding. Visual understanding aims to build a machine learning model that is able to recognize objects, scenes, and events from visual media. He presented to us the recent progress of the Multimedia Mining, Reasoning, and Creation (MMRC) Lab on using the multimodal descriptors of visual media for open-domain visual understanding tasks, ranging from image classification, product recommendation, video classification, to 2D/3D visual synthesis. The wonderful and dramatic speeches of each keynote speaker had triggered heated discussion. Moreover, every participant praised this conference for disseminating useful and insightful knowledge.

After months of well preparation and hard work, the proceedings of SPCS 2022 covering a bunch of papers are smoothly published. These papers feature but are not limited to the following areas: Digital Signal Processing, Ad-Hoc and Sensor Networks, Communication Signal processing, Monte Carlo Method, etc. All the papers have been checked through rigorous review and processes to meet the requirements of publication.

On behalf of the conference organizing committee, we would like to express our heartfelt appreciation to all the keynote speakers, peer reviewers, and all the participants. In particular, we would like to acknowledge the Journal of Physics: Conference Series, for the endeavor of all its colleagues in publishing this paper volume. We firmly believe that all the attendees have had fruitful discussions and gained valuable knowledge, and will enjoy the opportunity for future collaborations.

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