Preface

Due to recent pandemic, the 2022 2nd International Conference on Artificial Intelligence, Big Data and Algorithms (CAIBDA 2022) which was planned to be held in Nanjing, China, was held virtually online during June 17th to 19th, 2022. The decision to hold the virtual conference was made in compliance with many restrictions and regulations that were imposed by countries around the globe. Such restrictions were made to minimize the risk of people contracting or spreading the COVID-19 through physical contact. There were 200 individuals who attended this on-line conference, represented many countries including Canada, Poland, USA, India and China.

CAIBDA 2022 is an international forum for scientists, engineers, and practitioners to present their latest research and development results in all areas of Artificial Intelligence, Big Data, and Algorithms. Conference topics mainly include but are not limited to Artificial Intelligence Tools and Applications, Big data search, Programming Languages, Automatic Control, Multi-core Computing, Quantum Computing, Data Structures. CAIBDA 2022 welcomed all high-quality research papers and presentations from related research fields.

During the conference, the conference model was divided into three sessions, including oral presentations, keynote speeches, and online Q&A discussion. In the first part, some scholars, whose submissions were selected as the excellent papers, were given about 5-10 minutes to perform their oral presentations one by one. Then in the second part, keynote speakers were each allocated 30-45 minutes to hold their speeches.

In the second part, we invited six professors as our keynote speakers. The first keynote speaker, Prof. Phoebe Chen, La Trobe University, Australia, performed a speech: *Patterns Discovery using Artificial Intelligence in Bioinformatics.* And then we had Prof. Alamgir Hossain, from Cambodia University of Technology & Science, Cambodia. He made a wonderful speech: *AI-Powered Village – Can AI Help To develop Smart Villages?* Prof. Tie Qiu, from Tianjin University, China as our third keynote speaker. He serves as General Chair, Program Chair, Workshop Chair, Publicity Chair, Publication Chair or TPC Member of a number of international conferences. Prof. Xinli Huang, East China Normal University (ECNU), Shanghai, China. He presented a wonderful speech: *AIoT technology and its applications in Urban Intelligent Computing and Smart City.* Dr. Yilun Shang, from Northumbria University, presented his speech: *Online Screening of X-System Music Playlists Using an Integrative Wellbeing Model Informed by the Theory of Autopoiesis.* Prof. Tahar Kechadi, our finale keynote speakers, from University College Dublin. He presented a wonderful speech: *Smart Agriculture – Application of Machine Learning to Crop Management.* Their insightful speeches had triggered heated discussion in the third session of the conference. Every participant praised this conference for disseminating useful and insightful knowledge.

The proceedings are a compilation of the accepted papers and represent an interesting outcome of the conference. Topics include but are not limited to the following areas: Artificial Intelligence, Big Data, Algorithms and other related topics. All the papers have been through rigorous review and process to meet the requirements of international publication standard.

We sincerely hope that the CAIBDA 2022 turned out to be a forum for excellent discussions that enabled new ideas to come about, promoting collaborative research. We are sure that the proceedings will serve as an important research source of references and knowledge, which will lead to not only scientific and engineering findings but also new products and technologies.

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