# **Preface**

The 2022 3<sup>rd</sup> International Conference on Computer Engineering and Intelligent Control (ICCEIC 2022) was successfully held during November 25<sup>th</sup>-27<sup>th</sup>, 2022 in Chongqing, China (virtual conference). For the safety concern of all participants, ICCEIC 2022 was held as a virtual conference which is also effective and convenient for academic exchange and communication. Everyone interested in this field were welcomed to join the online conference to give comments and raise questions to the speeches and presentations.

The conference is an international event held annually for scientists, engineers, and other practitioners to present their latest research results in related areas of computer engineering and intelligent control. ICCEIC 2022 strengthened the academic research and discussion, promoted the industrial cooperation of academic achievements, and facilitated future business or research contacts among all the participants.

The scope of the conference covered all areas of research in computer engineering and intelligent control, including: Intelligent Control and Automation, Computer Network Security, Software Engineering, Embedded System, Computer Engineering, Network Engineering, etc. The conference brought together about 50 participants, primarily from China and Malaysia, but also from USA, Japan, India, and other countries.

A three-day program of the conference was divided into three parts, including a keynote speech part performed by four sophisticated professors. Each keynote speaker was given 30-40 minutes for keynote speeches. Among them, Prof. Qinmin Yang from Zhejiang University, China performed a keynote speech on the title: Theoretical Research and Practice in Intelligent Control Design for Wind Energy. Wind energy has been regarded to be a promising alternative to current fossil-based energies. Large-scale wind turbines have been widely deployed to substantiate the renewable energy strategy of various countries. In this speech, challenges faced by control community for high reliable and efficient exploitation of wind energy were discussed. Advanced controllers were designed to (partially) overcome problems, such as uncertainty, intermittence, and intense dynamics. The brilliant and insightful speeches of each keynote speakers triggered interesting discussions and a good number of informal talks between all the participants.

We would like to thank all the participants in the 2022 3<sup>rd</sup> International Conference on Computer Engineering and Intelligent Control. We would also like to thank the Organizing Committee and Technical Program Committee members, for the work they put in to organize this event. Finally, our special thanks go to the IEEE Computer Society, for the endeavor of all its colleagues in publishing this paper volume. Hopefully, all participants and other interested readers can benefit scientifically from the proceedings and find it rewarding in the process.

The Committee of ICCEIC 2022

# **Committee member**

## **Conference Chair**

Prof. Chi-Hua Chen, College of Mathematics and Computer Science, Fuzhou University, China

#### **Program Committee Chair**

Dusit (Tao) Niyato, School of Computer Science and Engineering (SCSE), Nanyang Technological University, China Prof. Xiaofang Yuan, Hunan University, China

### **Publication Chair**

Prof. Qinmin Yang, Zhejiang University, China

### **Academic Committees Member**

Prof. Ying-RenChien, NationalIlan University, Taiwan, China

Prof. Noreddine Gherabi, Sultan Moulay Slimane University, Morocco

Prof. Hongxia Xi, Shanghai Institute of Technical Physics Chinese Academy of Sciences, China

Prof. Chuankai Liu, Beijing Aerospace Control Center, China

Assoc. Prof. Mohamed A. Sullab, Libyan Academy-Misurata Branch

Assoc. Prof. Lisu Yu, Nanchang University, China

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

Assoc. Prof. Jiapeng Xiu, Beijing University of Posts and Telecommunications, China

Dr. Azim Zaliha Abd Aziz, Faculty of Informatics & Computing, Universiti Sultan Zainal Abidin, Malaysia

Dr. Vijayakumar Varadarajan, ARPA Digital Technology Co., Ltd, China

Dr. Liu Hong, National Institute of Informatics, Japan

Engineer Jianchao Fan, National Marine Environmental Monitoring Center, China

Ts. Dr. Aslina Baharum, User Experience Research Lab (UXRL), Universiti Malaysia Sabah (UMS), Malaysia

#### **Technical Program Committees Member**

Prof. Guohua Qu, Dalian University of Technology, China

Prof. Ke-Jun Li, Shandong University, China

Assoc. Prof. Marina Yusoff, Universiti Teknologi MARA, Malaysia

Assoc. Prof. Mohamed Said Mahmoud, China National Pulp and Paper Research Institute (CNPPRI), China

Assoc. Prof. Rahul Vishwanath Dandage, Rajendra Mane College of Engineering & Technology, Ambav (Devrukh)

Assoc. Prof. Surej Rajan C, Toc H Institute of Science and Technology, Arakunnam

Dr. Ariffin, Nor Hapiza, Information System Department, Universiti Teknologi Mara, Selangor, Malaysia

Dr. Azim Zaliha Abd Aziz, Faculty of Informatics & Computing, Universiti Sultan Zainal Abidin, Malaysia

Dr. Shivani Dhall, DAV college, India

Dr. Wan Nor Shuhadan Wan Nik, Universiti Sulatan Zainal Abidin, Terengganu, Malaysia

Dr. Zhiliang Qin, Nanyang Technological University (NTU), Singapore

Dr. Ariffin Nor Hapiza, Universiti Teknologi Mara, Malaysia

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

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