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Tao Lei
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Preface

The 2023 5th International Conference on Information Science, Electrical and Automation Engineering (ISEAE 2023) was held via hybrid form in Wuhan, China during 24th to 26th March 2023, following the successes of previous events held in Changsha (twice) and Shenzhen, and via online platform. This year the ISEAE 2023 aimed to bring together researchers, developers, and users in both industry and academia in the world for sharing state-of-art results, for exploring new areas of research and development, and to discuss emerging issues on advanced information science, electrical and automation engineering.

The Conference was organized by the School of Electrical and Electronic Engineering HUST, in collaboration with the Institute of New Energy, Wuhan. More than 200 international participants from 5 foreign countries attended the Conference.

The ISEAE 2023 was featured with five keynote speeches (by Yigang He, Kai Yang, Qiang Yang, Gang Qiao, Rza Bashirov, respectively), and several oral and poster presentations, in which a wide range of topics were covered and the most recent significant results were presented. Professor Yigang He from Wuhan University, China presented his research Power Electronic Conversion Technology for New Energy Vehicles. He discussed the benefits and challenges of using the 800V system in passenger vehicles. The key power electronic converters, including 800V soft switching DC-DC converter, 800V motor drive, integrated design of onboard charger and auxiliary power module, and hybrid switched-capacitor converter based power supplies were analyzed and discussed.

Including oral and poster presentations, many excellent papers evaluated based on their originality, technical or research content, correctness, relevance to conference, contributions, and readability were presented in the Conference, some of which were selected to publish in full papers in this edition of Society of Photo-Optical Instrumentation Engineers (SPIE). The topics of these papers include Optical Information Processing, Target Recognition Technology, Natural Language Processing, Electrical Machinery and Electrical Apparatus, Robotics and Automation Systems, Intelligent and AI Based Control, etc.

With the excellent quality of all the presentations, the ISEAE 2023 was a great success. We wish to thank the sponsors of the Conference, and particularly the Technical Program Committee and the Publication Chair. We would also like to extend our gratitude to all the speakers and authors for sharing scientific ideas and presenting new perspectives with us on related topics. Our appreciation also to SPIE for the assistance it provided for the publication of this paper volume.

The Committee of ISEAE 2023