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Preface

It is with immense pleasure and profound honor that we present the Proceedings of the 2024 4th International Conference on Control and Intelligent Robotics (ICCIR 2024). This prestigious gathering, held from 21st to 23rd June 2024 in Guangzhou, China, served as a vibrant platform for scholars, researchers, and practitioners from around the world to converge and delve into the latest advancements and challenges in the exciting field of control and intelligent robotics.

The ICCIR 2024, organized by the School of Automation Science and Engineering, South China University of Technology, in collaboration with esteemed supporting institutions such as the Wuhan Institute for Artificial Intelligence, Peking University; the Advanced Robotics and Intelligent Systems Laboratory, University of Guelph; Nanyang Technological University, Singapore; Robotics Society of Singapore; and IEEE CIS Guangzhou Chapter, aimed to foster interdisciplinary exchange and collaboration. The conference embodied the spirit of innovation and progress, focusing on how research findings can be translated into practical solutions that drive economic and social benefits.

The Proceedings of ICCIR 2024 brings together a wealth of research papers, reflecting the depth and breadth of the field. The thematic reports, oral presentations, and poster presentations performed during the conference made rich the Proceedings, and provided attendees with comprehensive and in-depth understanding and insight, stimulating thinking and innovation. Topics explored in these contributions span a diverse range, including but not limited to Adaptive Control, Intelligent Systems, Precision Motion Control, Neural Networks, Modeling and Recognition, Perception Systems, Mechanism Design and Application, Image and Video Analysis, Learning in Vision, Human-Machine Interaction, and Mobile Robotics. The papers present cutting-edge research that addresses both theoretical and practical aspects of control and intelligent robotics, offering insights into emerging technologies and trends that will shape the future of this dynamic domain.

Each submission was undergone meticulous and rigorous scrutiny, ensuring that only the most innovative and impactful research was included in the Proceedings published in the ACM International Conference Proceeding Series. This publication marks an important milestone in disseminating knowledge and promoting the development of control and intelligent robotics. We hope that readers will find inspiration and valuable insights in the work presented here. We also encourage active discussions and future collaborations among researchers and practitioners, fostering a vibrant and inclusive community dedicated to advancing the field of control and intelligent robotics.

Finally, we extend our heartfelt gratitude to all the authors for their excellent contributions, the reviewers for their invaluable service, and the sponsors and supporting organizations for their generous support. Without your dedication and commitment, this conference would not have been possible. We look forward to continued success in future ICCIR events, as we strive to push the boundaries of knowledge and innovation in control and intelligent robotics.

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