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Preface

The rapid evolution of technology in the fields of artificial intelligence (AI), robotics, and communication has necessitated a dedicated platform for sharing groundbreaking research, fostering academic exchanges, and promoting industrial collaborations. It is within this context that the 2024 4th International Conference on Artificial Intelligence, Robotics, and Communication (ICAIRC 2024) has once again proven to be a pivotal gathering for scholars, engineers, and industry experts worldwide.

ICAIRC 2024 builds upon the rich legacy of its predecessors, which have consistently provided a platform for discussing the latest advancements and future trends in AI, robotics, and communication. Organized by Xiamen University, with publication support from the Institute of Electrical and Electronics Engineers (IEEE), this conference represents a culmination of efforts to bridge the gap between academia and industry. It is a meeting point where theoretical insights meet practical applications, and where cutting-edge research translates into tangible technological advancements.

The conference's agenda is meticulously designed to cater to the diverse interests and expertise of its attendees. It begins with an opening ceremony, setting the tone for the intellectual journey that lies ahead. The keynote speeches constitute a highlight of the event, featuring renowned experts from across the world. These speeches delve into topics ranging from the successful applications of AI in engineering science and related disciplines to the impact of AI on sustainable development goals (SDGs). The presentations by Professor De-Shuang Huang from Eastern Institute of Technology on Deep Learning Based Biological Motifs Mining, Professor Nianyin Zeng from Xiamen University on Handling Dynamic Behaviors in Environments via the Evolutionary Transfer Optimization Technique, Professor Liansheng Wang on AI for Pathology Image Analysis, and Professor Philippe Fournier-Viger from Shenzhen University on Advances and Challenges for the Automatic Discovery of Interesting Patterns in Data serve as examples of the depth and breadth of knowledge shared during these sessions.

Following the keynote speeches, the conference proceeds to technical sessions that include oral presentations and poster exhibitions. Oral presentations, typically 10-15 minutes long, provide a platform for authors to present their research in the form of meticulously prepared PPTs. These sessions cover a wide spectrum of sub-domains within AI, robotics, and communication, such as machine learning and data mining, robot control and mobile robotics, optical and wireless communication technologies, and more. The presentations are not only an opportunity for authors to showcase their work but also a channel for valuable feedback and academic discourse.

Poster exhibitions, on the other hand, allow for a more visual representation of research, encouraging attendees to engage in detailed discussions with the poster presenters. This format fosters an interactive environment conducive to networking and the establishment of collaborative relationships.

The conference's emphasis on rigorous peer review ensures the high quality of the accepted papers. All submissions undergo a meticulous evaluation process by 2-3 experts from the organizing committee. The accepted papers, which must be original and unpublished, are subsequently published by IEEE and indexed in EI Compendex and Scopus. This not only enhances the academic credibility of the authors but also contributes to the body of knowledge in their respective fields.

ICAIRC 2024 has contributed significantly to the body of knowledge in artificial intelligence, robotics, and communication. And the insights and connections forged at ICAIRC 2024 will play a crucial role in shaping the trajectory of these fields. We extend our gratitude to all the contributors, attendees, and supporters who made this conference a resounding success.

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