

Shuo Yang
Huimin Lu (Eds.)

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Artificial Intelligence and Robotics

7th International Symposium, ISAIR 2022
Shanghai, China, October 21–23, 2022
Proceedings, Part I

Part 1

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Preface

In recent years, artificial intelligence (AI) has attracted attention as a key for growth in developed countries and developing countries. The attention has been focused mainly on developing new deep learning-based information communication technology (ICT) and Internet of Things (IoT) applications. Although recently developed deep learning technology certainly excels in extracting certain patterns, there are many limitations. Most of recent models are overly dependent on big data, lack a self-idea function, and are complicated. In order to overcome these limitations and to solve the real-world industrial problems, cognitive computing (CC) and computational neuroscience (CN) are driving some of the best tools for future brain-inspired robots.

Rather than merely focusing on the development of next-generation AI models, the 7th International Symposium on Artificial Intelligence and Robotics (ISAIR 2022) aimed to provide a platform to share up-to-date scientific and industrial achievements of general-purpose intelligence cognition methods. These methods provide efficient tools to solve the issues of recent AI models, and capture remarkable human learning abilities, combining the strengths of CC/CN and deep generative neural networks.

This proceedings collects the state-of-the-art contributions on the cognitive intelligence, computer vision, multimedia, the Internet of Things, robotics, and related applications presented at ISAIR 2022, held during October 21–23 in Shanghai, China.

We received 285 submissions from authors in over 10 countries around the world. After the careful single-blind review process, 67 papers were selected based on their originality, significance, technical soundness, and clarity of exposition. Each submission was reviewed by at least 2 members of the Program Committee and the accepted papers underwent further rigorous rounds of review.

It is our sincere hope that this volume provides stimulation and inspiration, and that it will be used as a foundation for works to come.

October 2022

Shuo Yang
Huimin Lu
Shenglin Mu
Rushi Lan

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