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Artificial Intelligence: Achievements and Recent Developments

Editors:

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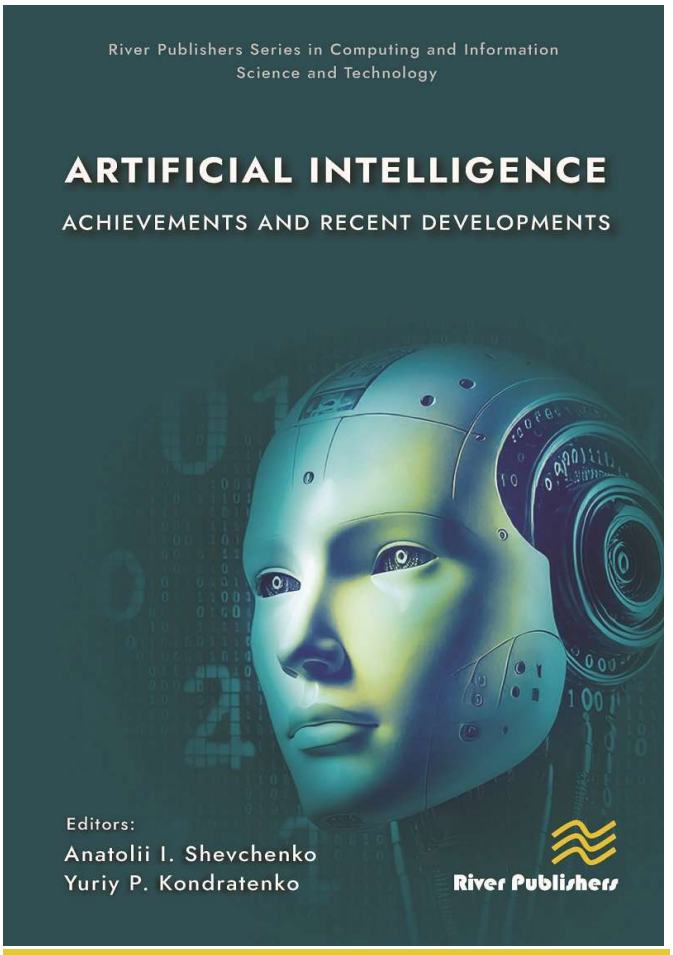
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This book features state-of-the-art artificial intelligence (AI) development and implementation, focusing on recent results and distinguished achievements. It analyzes AI implementation prospects, some new research tendencies and trends for AI development as well as corresponding challenges and risks. The book consists of twelve chapters in the AI field which may be conditionally divided into two groups.
One group of chapters is devoted to the overview, analysis and the discussion of (a) the world's achievements and priorities in AI's implementation, (b) the conception of the interrelation of AI and the artificial conscience, (c) the level of AI freedom (d) challenges and risks of AI implementation, (e) efficiency of deep learning and (f) socionic models of psycho-informational processes and quantum computers.

The second group of chapters presents recent developments in the AI field and successful cases of AI implementations in the different areas of human activity. Special attention is paid to efficient AI-based solutions in cybersecurity, the military sphere, biology, medicine, metallurgy, automation of industrial processes, and decision support in marine safety. In addition, this book considers the peculiarities of the AI and AI tools application for the recovery processes of the destroyed by war countries.

The monograph consists of research-analytic-oriented chapters presented by invited high-caliber scientists from different countries (Ukraine, the United States of America, the United Kingdom, and P.R. of China).
TABLE OF CONTENTS

- Artificial Intelligence: Achievements and Prospects
- Decision Support in the Field of Cyber Security Through the Use of Generative Artificial Intelligence
- Applications of Large Language Models in the Military Sphere
- Optimization-oriented Synthesis of Rule Bases of Intelligent Systems: Application Features for Complex Plants Control
- The Nearest Results of Artificial Intelligence Application in Biology and Medicine: Development Trends and Implementation Risks
- Artificial Intelligence Technologies for Efficient Solving Recognition Tasks
- Hierarchical Decision Support System for Increasing Maritime Safety Based on Optical Color Computing Architecture
- Artificial Intelligence: Effective Socionic Models of Psycho-Informational Processes and Quantum Computers
- Cognitive Methodology as AI Tool for Investigation of Phenomenological Ground of Melt Electromagnetic Treatment
- Some Aspects of the Application of Artificial Intelligence for the Recovery and Development of Ukraine
- Two is Enough, but Three (or More) is Better: in AI and Beyond
- How Free Can Artificial Intelligence Be?



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