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Research Tendencies and Prospect Domains for AI Development and Implementation

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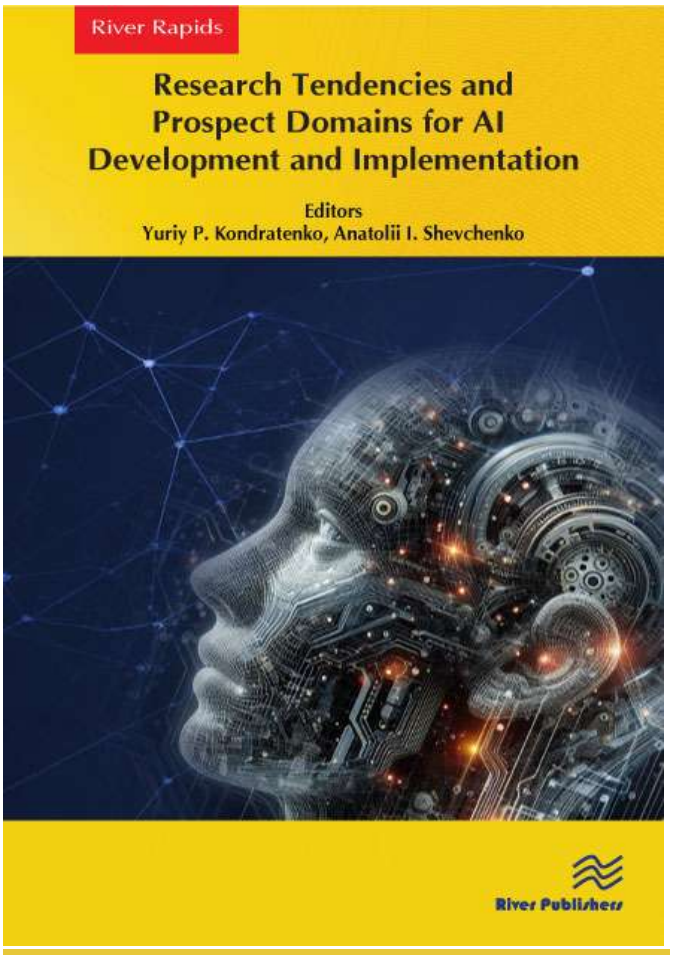

This River Rapid explores artificial intelligence (AI) implementation priorities, prospect domains, and new research tendencies and trends for AI development and implementation. Part 1 is devoted to the world's priorities in AI implementation and its main components are based on the analysis of the 50 National strategies for AI development as well as the world's and NATO's priorities in AI's implementation and methodological aspects for creating the Ukrainian AI conception and strategy, key priority areas for the introduction of AI in Ukraine, the conscience approach to AI systems design as well as the discussion on the new generation computer system with embedded AI. Special attention is paid to perspectives of AI implementation in education and interrelation and inter-influence between AI and educational systems.

Part 2 is devoted to some new tendencies in AI development and implementation. Many scientific results and discussions are directed to some new trends in contemporary AI research: AI systems and tools for shipping and shipbuilding; quantum computing and color optical fuzzy computing in applied AI's R&D; AI for increasing the efficiency of the decision-making processes; neural networks for solving classification and recognition tasks.
This book provides an overview of the recent developments in advanced AI systems including new theoretical findings and successful examples of practical implementation of the AI tools in different areas of human activities. The chapters ate presented by invited high-caliber scientists from different countries (Ukraine, the United States of America, Poland, Norway, and the People's Republic of China).
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