

Artificial Intelligence: Achievements and Recent Developments

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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).

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ARTIFICIAL INTELLIGENCE

ACHIEVEMENTS AND RECENT DEVELOPMENTS



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