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Special Issue Reprint

Artificial Intelligence and Algorithms with Their Applications

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This Collection compiles selected research from the Special Issue “Artificial Intelligence and Algorithms with Their Applications”, highlighting the intersection of mathematical theory, algorithm design, and practical AI applications. The contributions cover a broad spectrum of topics, including deep learning and edge detection, reinforcement learning for autonomous systems, explainable AI in image classification and agricultural diagnostics, and optimization and evolutionary algorithms for complex problem-solving. Additional works explore pattern matching in time-series data, feature extraction for radar recognition, and methods for inferring spatial information from textual descriptions. Each topic emphasizes the mathematical foundations that underpin algorithmic performance, robustness, and interpretability, providing insights into both theoretical advances and real-world applications.

This Reprint is intended for researchers, graduate students, and practitioners in AI, applied mathematics, computer science, and engineering, offering a valuable resource for understanding how rigorous mathematical modeling and innovative algorithms drive the next generation of intelligent systems.

