

Exploring AI-Driven Approaches for Sustainable Innovation in Industry 4.0: A Global Vision Study

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Abstract

The emergence of Industry 4.0 offers transformative opportunities to enhance sustainability in industrial systems. This study undertakes a global vision analysis of the potential applications of artificial intelligence (AI) and data analytics, optimizing supply chain and logistics processes, with a focus on waste valorization for sustainable materials. By leveraging innovative approaches to predictive modeling and system design, the research aims to uncover new pathways for efficiency and sustainability. Positioned at the intersection of advanced technologies and sustainable practices, this work lays the groundwork for bridging traditional methods with cutting-edge solutions to meet the demands of modern industry.

Keywords

Artificial Intelligence (AI), Industry 4.0, Supply Chain, Sustainable Materials