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Special Issue Reprint

Mixture of Human and Machine Intelligence in Digital Manufacturing

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This Reprint examines the evolving role of human–machine interfaces (HMI) within the context of Industry 4.0 and digital manufacturing, where human and machine intelligence are increasingly integrated to enhance design, production, and decision-making. It highlights research on advanced interaction technologies that move beyond traditional tools toward dynamic, collaborative relationships between humans and autonomous systems. Topics include novel design patterns in perception, control, and arbitration; the application of human expertise in machine decision-making; and the use of sensory data for informed, adaptive manufacturing processes. By bringing together contributions from both academic and industrial perspectives, the Reprint provides a comprehensive view of the opportunities, challenges, and future directions for human–machine collaboration in digital manufacturing.



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