



sensors



Special Issue Reprint

Artificial Intelligence and Deep Learning in Sensors and Applications

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The aim of this reprint is to address increasingly complex human problems by utilizing various sensors to collect data, enabling the formulation of solutions through deep learning and artificial intelligence (AI). This trend creates a high demand for sensors while presenting new challenges in developing sensor devices and applications across various fields, such as healthcare, manufacturing, agriculture, transportation, construction, and environmental monitoring. For instance, in environmental monitoring, AI-integrated sensors rapidly analyze large datasets to identify real-time patterns and trends, enhancing weather forecasting accuracy by gathering data from multiple sources. In industrial settings, AI-enhanced sensors optimize manufacturing by monitoring equipment health, predicting failures, and proactively scheduling maintenance. This reprint compiles contributions on AI and sensor technology, sharing ideas, designs, applications, and deployment experiences across various fields, including smart manufacturing, construction, autonomous vehicles, traffic monitoring, object recognition, image classification, speech processing, and human behavior analysis.



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