Special Issue

Computer Vision Powered Human-Machine Interaction in Healthcare

Message from the Guest Editors

The integration of computer vision with human–machine interaction (HMI) is transforming healthcare by enabling more efficient, accurate, and personalized medical services. With advances in artificial intelligence (AI), there is significant potential for enhancing diagnostic accuracy, patient monitoring, and clinical decision-making. Healthcare, which is facing a shortage of medical professionals as well as rising demands, can greatly benefit from AI-driven medical assistants. However, despite the success of general-purpose AI models, the healthcare sector presents unique challenges, such as the need for explainability, robustness, trustworthy, and security. This Special Issue emphasizes these critical aspects and invites original and innovative contributions exploring how machine learning, deep learning, and AI technologies are enhancing human–machine interaction in areas including (but not limited to) intelligent medical imaging, computer-aided diagnosis, telemedicine, surgical assistance, virtual and augmented reality (VR/AR) for medical training, and wearable sensor systems for real-time health monitoring.

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Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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