Journal of Engineering

Hindawi

Special Issue on

Advanced Applications of Intelligent Sensors and Artificial Intelligence in Enhancing Human-Technology Interaction

CALL FOR PAPERS

In the era of rapid technological advancement, Machine Learning (ML) and Artificial Intelligence (AI) have become pivotal in shaping the development of human society. Their integration into various sectors, from industry manufacturing to healthcare, has demonstrated the effectiveness of these technologies in addressing complex problems. It has also highlighted the remarkable progress in sensor technology. This Special Issue seeks to explore the cutting-edge applications of intelligent sensors and AI, with the aim of contributing to this dynamic field by addressing both the opportunities and challenges it presents.

Despite the potential of intelligent sensors and AI to transform various aspects of society, the field faces several challenges. The explosion of data generated by sensor networks requires scalable and high-performance approaches for processing and analysis. In addition, there is a need for innovative solutions that can improve the stability, precision, and utility of sensor systems in real-world applications.

The aim of this Special Issue is to serve as a platform for the dissemination of research that advances the application of intelligent sensors and AI in improving human-technology interaction. We welcome original research and review articles that seek to highlight interdisciplinary studies that address the social, physical, and psychological dimensions of this integration, focusing on sustainability, public health, and the enhancement of human-machine interfaces.

Potential topics include but are not limited to the following:

- Advanced Signal Processing for Intelligent Sensors: Exploring novel methodologies to enhance sensor precision and stability.
- Intelligent Sensor Networks: Optimization of performance, energy efficiency, and data accuracy.
- Industrial Applications of Intelligent Sensors: Impact on productivity and safety.
- AI in Multisensor Data Analysis: Integrating and analyzing sensor data for better decision making.
- Vision Sensors and Image Processing: Applications in security, navigation, and automation.
- ML in Internet of Things (IoT): Enhancing IoT devices with AI for smarter applications.
- Challenges and Innovations in ML: Applying ML to improve sensor systems and infrastructure.
- Case Studies in Healthcare and Industry 4.0: Implementations of sensors and AI across sectors.
- IoT and Smart City Solutions: Improvements in sustainability, energy efficiency, and urban living.
- AI and Robotics in Autonomous Vehicles and Drones: For transportation and surveillance.

Authors can submit their manuscripts through the Manuscript Tracking System at https://review.wiley.com/submit?specialIssue=653805.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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