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Nota di contenuto	Multi-spectral sensors in multi-field applications -- Active visual camera system -- Universal camera jammer system -- Biomedical optical sensors -- Healthcare– Perfect realization of intelligent optical sensors.
Sommario/riassunto	This book provides a concise overview of intelligent technologies for vision and sensing, with a particular focus on their applications in various multispectral configurations, including safety monitoring in rural areas. Within the realm of intelligent perception and contemporary healthcare, the book emphasizes the real-time monitoring, analysis, and prediction of vital signals using biomedical optical sensors. This approach aims to offer more adaptable and personalized services within the medical health management domain. Furthermore, the book delves into the comprehensive comprehension of physiological signals and additional data sources, such as environmental and motion data.

The goal is to enhance the breadth and depth of data analysis, providing more integrated support for the life and health sector. Additionally, the book explores the implementation of edge intelligence algorithms at the sensor level to enable real-time analysis, enhancing the efficiency of sensor data processing and utilization. Detailed explanations of the configuration and deployment of an active vision camera system featuring an integrated edge algorithm are provided to elucidate the coordination and communication mechanisms of edge intelligence technology across multiple edge devices. A specific application case is then presented—the universal camera jamming system—which underscores the benefits of intelligent sensing fusion for tasks such as attitude and position recognition, as well as self-feedback excitation jamming. The book underscores the pervasive and seamless integration of smart sensing in both current and future lifestyles, spanning from active vision cameras to diverse applications across multiple spectrums. Its insights are poised to stimulate innovation and application within the realms of smart vision and sensing, including a comprehensive analysis of future healthcare paradigms. .