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Autore	Biswas Suparna
Titolo	Machine Learning and Deep Learning in Human Activity Recognition and Fall Detection : Algorithms, Frameworks, and Applications for Sustainable Healthcare / / by Suparna Biswas
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Soggetti	Telecommunication Medical informatics Signal processing Machine learning Communications Engineering, Networks Health Informatics Signal, Speech and Image Processing Machine Learning
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Nota di contenuto	Introduction -- Introduction to Human Activity Recognition, Fall Monitoring and Detection, Health monitoring -- Fundamental concepts -- Machine Learning in Human Activity Recognition using Smartphone Sensors -- Deep Learning in Human Activity Recognition using Smartphone Sensors -- Machine Learning in Fall Detection System -- Sensor Fusion based HAR for Disease Monitoring and Prediction -- Design, Development, Deployment Strategies -- Conclusion.
Sommario/riassunto	This book presents research into the domain of Human Activity Recognition (HAR) and Fall Detection (FD), with a focus on the seamless monitoring and support of elderly people. The author shows how current HAR and FD technologies have application in disease monitoring, prediction and identification, as well real-time facilitating early diagnosis of symptom-based disease identification, prediction, and detection. The author discusses existing infrastructure that supports this ecosystem, comprising smartphones, WiFi, 3G/4G

Internet connectivity, and low-cost wearable sensors for sustainable health monitoring and care. The book presents smart technologies such as machine learning, deep learning, and Internet of Things that are applied for sensor data analysis and knowledge extraction towards accurate identification of activities and fall events with pre-fall postures in real time. The author also shows how smart and seamless health monitoring and care ecosystem fits with traditional healthcare system for sustainable solutions. Presents smart technologies for sustainable health monitoring and care targeted for the elderly; Discusses techniques for privacy surrounding Human Activity Recognition (HAR) and Fall Detection (FD); Includes case studies, scenario-based studies, sponsored projects, prototypes and successful applications.