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Titolo	Activity Recognition and Prediction for Smart IoT Environments / / edited by Michele Ianni, Antonella Guzzo, Raffaele Gravina, Hassan Ghasemzadeh, Zhelong Wang
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Descrizione fisica	1 online resource (188 pages)
Collana	Internet of Things, Technology, Communications and Computing, , 2199-1081
Disciplina	613.04244
Soggetti	Cooperating objects (Computer systems) Telecommunication User interfaces (Computer systems) Human-computer interaction Biometric identification Cyber-Physical Systems Communications Engineering, Networks User Interfaces and Human Computer Interaction Biometrics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Methodology for human activity recognition based on wearable sensor networks -- Efficient Sensing and Classification for Extended Battery Life -- Multi-user activity monitoring based on contactless sensing -- An efficient approach exploiting Ensemble Learning for Human Activity Recognition -- Activity Recognition Using 2-D LiDAR based on Improved MobileNet -- Habit mining through process-mining techniques. Survey and research challenges -- The role of ML in Activity Recognition in the Industry 4.0 -- IoT Based HAR patterns using Sensors based Approach in smart environment and enabled assistive technologies -- Trace2AR: a novel embedding for the detection of complex activity recognition -- Situation Aware Wearable Systems for Human Activity Recognition -- Conclusion.

## Sommario/riassunto

This book provides the latest developments in activity recognition and prediction, with particular focus on the Internet of Things. The book covers advanced research and state of the art of activity prediction and its practical application in different IoT related contexts, ranging from industrial to scientific, from business to daily living, from education to government and so on. New algorithms, architectures, and methodologies are proposed, as well as solutions to existing challenges with a focus on security, privacy, and safety. The book is relevant to researchers, academics, professionals and students. Provides a comprehensive review of the field of activity recognition; Covers an array of topics and applications illustrating the use of activity recognition in IoT related scenarios; Explains how to extract value from application logs and use the data to classify activities and predict actions. .

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