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Nota di contenuto	Essential Uses of IoT and Machine Learning -- IoT Pro-Interventions: Transforming Industries and Enhancing Quality of Life -- A Comprehensive Review of Machine Learning Approaches in IoT and Cyber Security for Information Systems Analysis -- Application of Machine learning in the Internet of Things -- Empowering Industries with IoT and Machine Learning Innovations -- A Framework for Sustainable Smart Healthcare Systems in Smart Cities -- Cloud Computing Applications in Digital Health: Challenges related to Privacy and Safety -- An IoT-Based Blockchain-Enabled Secure Storage for Healthcare Systems -- Block-Chain Technology in Smart Telemedicine using IOT -- Securing the Future of IoT-Based Smart Healthcare: Challenges, Innovations, and Best Practice -- Smart City: Challenges & Opportunities Detection and Identification of Autonomous Vehicles Using Sensor Synthesis -- AN IOT BASED REAL TIME TRAFFIC

MONITORING SYSTEM -- Internet of Things enabled Technological devices empowering expertise in improve Smart City operations -- Enhancing Smart City Retail: An Innovative IoT Driven Smart Billing-Enabled Shopping Cart -- Smart City: Challenges and Issues -- IoT based Real-Time Ecological Monitoring System Deploying an Arduino Board and Cloud Computing -- IoT Based Monitoring Of Waste Management And Air Pollutants -- IOT based smart dustbin design and implementation for monitoring under uncertain environments -- Smart garbage monitoring system using IOT for commercial purpose -- IoT Based Smart Home Systems -- A Survey on Various Secure Access Control and Authentication in a Block Chain -Enable Cloud IoT -- Uncovering the Truth: A Machine Learning Approach to Detect Fake Product Reviews and analyze Sentiment -- Real Time Fall Detection monitoring on elderly using IoT and Deep Learning -- CNN's augmented with IoT for Traffic Optimization and Signal Regulation -- CVLSTMLW-CNN:A IoT-Enabled Hybrid CNN model for Heart Disease Prediction -- Advancements in Security Technologies for Smart Cities: A Comprehensive Overview -- A Deep Learning Framework based on Convolutional Neural Network for Automatic Detection of Cyberattacks in IoT Use Cases -- Digital Attack Identification for the Internet of Things Using Machine Learning -- IoT Applications and Cyber Threats: Mitigation Strategies for a Secure Future -- Internet of Things and OpenCV-Based Smart Posture Recognition Chair -- Security concerns in low power networks for Internet of Things (IoT) -- Comprehensive Review of Security Challenges and issues in Wireless Sensor Networks Integrated with IoT.

Sommario/riassunto

Explainable IoT Application: A Demystification is an in-depth guide that examines the intersection of the Internet of Things (IoT) with AI and Machine Learning, focusing on the crucial need for transparency and interpretability in IoT systems. As IoT devices become more integrated into daily life, from smart homes to industrial automation, it is increasingly important to understand and trust the decisions they make. The book starts by covering the basics of IoT, highlighting its importance in modern technology and its wide-ranging applications in fields such as healthcare, transportation, and smart cities. It then delves into the concept of explainability, stressing the need to prevent IoT systems from being perceived as opaque, black-box operations. The authors explore various techniques and methods for achieving explainability, including rule-based systems and machine learning models, while also addressing the challenge of balancing explainability with performance. Through practical examples, the book shows how explainability can be successfully implemented in IoT applications, such as in smart healthcare systems. Furthermore, the book addresses the significant challenges of securing IoT systems in an increasingly connected world. It examines the unique vulnerabilities that come with the widespread use of IoT devices, such as data breaches, cyberattacks, and privacy issues, and discusses the complexities of managing these risks. The authors emphasize the importance of implementing security strategies that strike a balance between fostering innovations and protecting user data. The book concludes with a comprehensive exploration of the challenges and opportunities in making IoT systems more transparent and interpretable, offering valuable insights for researchers, developers, and decision-makers aiming to create IoT applications that are both trustworthy and understandable.