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Nota di contenuto	Fusion of IoT and Blockchain (BIoT): A Novel Architecture for Smart Agri culture -- Smart Chapeau for Visually Impaired Person -- Exploring The Impact Of Cloud Computing On Mobile Application Development -- Active Machine-to-Machine(M2M) and IoT Communication Architecture for Mobile Devices and Sensor Nodes -- rought Prediction in Agriculture with Support Vector Neural Networks: Enhancing Accuracy -- lockchain-based Anomaly Detection and Intrusion Prevention in IoT Net works -- Performance of Machine Learning Algorithms in Big Data Analytics -- Machine Learning and IoT Based Efficient Power Conservation System for Smart Buildings -- An Assessment on Algorithms for Planning of Secondary Distribution with Renewable Energy -- A Novel Heart disease Monitoring and Prediction using Machine Learning Algorithm -- An Efficient Quadrature LEACH Routing Protocol with Enhanced FODPSO Optimization in WSN -- A Multihop Routing Protocol in Wireless Sensor Networks using Graph based Cat Salp Swarm Algorithm -- Level Monitoring of Cylindrical Two-tank System using IoT -- Numerical Simulation for Effect of

Varying Materials on Performance Enhancement of Earth Tube Heat Exchanger -- Advancements in Hand Gesture Recognition through Convolutional Neural Networks: A Comprehensive Study -- An intelligent feature extraction and multiple learning based classification techniques for diagnosis of breast cancer -- AI and Robotics: Humanity's New Frontier -- IoT - based Safety Jacket System for Mining Professionals -- Predictive Web Prefetching: A Combined Approach Using Clustering Algorithms and WEKA in High-Traffic Settings -- Advancements in Imaging Techniques for Accurate Identification of VCF in Patients with Scoliosis -- Distance domination in semigraph -- Behavioral Aspects of 2.5 GHz in an Indoor Environment -- An Experimental Study of Stone Matrix Asphalt with Different Fillers -- SMACO Program execution on new simulator using new instructions -- Blockchain-Based System for Virtual Power Plants: Enhancing Efficiency and Security in Operations and Transactions -- Netflix Data Analysis using EDA -- Analysis of the impact of machine learning on the development of the strategic business model by analysing the customer's opinions and demands -- Medical Chatbot using Machine Learning -- Microcontroller Based Smart Automated Public Garage Maintenance System -- Optimizing Intrusion Detection Systems Using Deep Learning and Genetic Algorithms for Network Traffic Analysis -- Semantic Segmentation of Natural Scene Images using Encoder-Decoder Approach -- Investigation of an Architecture for Convolutional Neural Network with Efficient Resource Utilization -- IoT-Enabled Smart Helmet: Enhancing Safety for Motorcycle Riders through Alcohol, Drowsiness, and Helmet Detection -- Design of H-shaped slotted Microstrip Patch Antenna at 28 GHz for 5G Communication -- Design of Compact Wideband Microstrip Patch Antenna for IoT Applications in WLAN, Wi-Max, C-Band -- Design and Analysis of Dual AlN/SiN passivation layer for mitigation of Self-Heating in HEMTs -- Design, Simulation and Optimization of Extended Interaction Cavities for a C Band Multi-beam High Efficiency Klystron -- Performance Comparison of Different Digital Image Filters Used for Biomedical Signals.

Sommario/riassunto

This book is an open access publication. This book explores innovation paths for improving the positioning of the manufacturing sector in the international arena. The roadmap is the result of intense work over two years, during which companies, universities, research bodies, and associations came together to build a systemic vision for the themes of research and technological innovation with a medium to long term outlook. The work is based on a collaborative framework whereby top-down analysis of the global development trends and scenarios generating the challenges for manufacturing is integrated with a bottom-up approach that engages the Cluster's members in bringing forward their research needs. The roadmap's proposal is structured along 7 strategic action lines designed to face the challenges from the market such as personalized production, industrial sustainability, valorization of humans in factories, high efficiency, and to seize and develop the opportunities offered by enabling technologies such as innovative production processes, evolving and reconfigurable processes, cybersecurity, AI, and digital platforms.