

| | |
|-------------------------|---|
| 1. Record Nr. | UNINA9910704873103321 |
| Autore | Reynolds Hugh W. |
| Titolo | New technology for low-grade hardwood utilization : system 6 // by Hugh W. Reynolds and Charles J. Gatchell |
| Pubbl/distr/stampa | Broomall, PA : , : United States Department of Agriculture, Forest Service, Northeastern Forest Experiment Station, , [1982] |
| Descrizione fisica | 1 online resource (8 pages) : illustrations |
| Collana | Research paper NE ; ; 504 |
| Soggetti | Hardwoods - Utilization - United States Furniture industry and trade - Technological innovations Technology - United States |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Title from title screen (viewed Sept. 10, 2013). |
| Nota di bibliografia | Includes bibliographical references (page 8). |

| | |
|-------------------------|---|
| 2. Record Nr. | UNINA9910829846403321 |
| Titolo | A roadmap for enabling Industry 4.0 by artificial intelligence // edited by Jyotir Moy Chatterjee, Harish Garg and R. N. Thakur |
| Pubbl/distr/stampa | Hoboken, NJ : , : Wiley, , [2023] ©2023 |
| ISBN | 1-119-90514-1 1-119-90513-3 9781119904854 |
| Descrizione fisica | 1 online resource (339 pages) |
| Soggetti | Artificial intelligence - Industrial applications Industry 4.0 |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di contenuto | Cover -- Title Page -- Copyright Page -- Contents -- Preface -- Chapter 1 Artificial Intelligence-The Driving Force of Industry 4.0 -- 1.1 Introduction -- 1.2 Methodology -- 1.3 Scope of AI in Global Economy and Industry 4.0 -- 1.3.1 Artificial Intelligence-Evolution and Implications -- 1.3.2 Artificial Intelligence and Industry 4.0-Investments and Returns on Economy -- 1.3.3 The Driving Forces for Industry 4.0 -- 1.4 Artificial Intelligence-Manufacturing Sector -- 1.4.1 AI Diversity-Applications to Manufacturing Sector -- 1.4.2 Future Roadmap of AI-Prospects to Manufacturing Sector in Industry 4.0 -- 1.5 Conclusion -- References -- Chapter 2 Industry 4.0, Intelligent Manufacturing, Internet of Things, Cloud Computing: An Overview -- 2.1 Introduction -- 2.2 Industrial Transformation/Value Chain Transformation -- 2.2.1 First Scenario: Reducing Waste and Increasing Productivity Using IIoT -- 2.2.2 Second Scenario: Selling Outcome (User Demand)-Based Services Using IIoT -- 2.3 IIoT Reference Architecture -- 2.4 IIoT Technical Concepts -- 2.5 IIoT and Cloud Computing -- 2.6 IIoT and Security -- References -- Chapter 3 Artificial Intelligence of Things (AIoT) and Industry 4.0-Based Supply Chain (FMCG Industry) -- 3.1 Introduction -- 3.2 Concepts -- 3.2.1 Internet of Things -- 3.2.2 |

The Industrial Internet of Things (IIoT) -- 3.2.3 Artificial Intelligence of Things (AIoT) -- 3.3 AIoT-Based Supply Chain -- 3.4 Conclusion -- References -- Chapter 4 Application of Artificial Intelligence in Forecasting the Demand for Supply Chains Considering Industry 4.0 -- 4.1 Introduction -- 4.2 Literature Review -- 4.2.1 Summary of the First Three Industrial Revolutions -- 4.2.2 Emergence of Industry 4.0 -- 4.2.3 Some of the Challenges of Industry 4.0 -- 4.3 Application of Artificial Intelligence in Supply Chain Demand Forecasting -- 4.4 Proposed Approach.

4.4.1 Mathematical Model -- 4.4.2 Advantages of the Proposed Model -- 4.5 Discussion and Conclusion -- References -- Chapter 5 Integrating IoT and Deep Learning-The Driving Force of Industry 4.0 -- 5.1 Motivation and Background -- 5.2 Bringing Intelligence Into IoT Devices -- 5.3 The Foundation of CR-IoT Network -- 5.3.1 Various AI Technique in CR-IoT Network -- 5.3.2 Artificial Neural Network (ANN) -- 5.3.3 Metaheuristic Technique -- 5.3.4 Rule-Based System -- 5.3.5 Ontology-Based System -- 5.3.6 Probabilistic Models -- 5.4 The Principles of Deep Learning and Its Implementation in CR-IoT Network -- 5.5 Realization of CR-IoT Network in Daily Life Examples -- 5.6 AI-Enabled Agriculture and Smart Irrigation System-Case Study -- 5.7 Conclusion -- References -- Chapter 6 A Systematic Review on Blockchain Security Technology and Big Data Employed in Cloud Environment -- 6.1 Introduction -- 6.2 Overview of Blockchain -- 6.3 Components of Blockchain -- 6.3.1 Data Block -- 6.3.2 Smart Contracts -- 6.3.3 Consensus Algorithms -- 6.4 Safety Issues in Blockchain Technology -- 6.5 Usage of Big Data Framework in Dynamic Supply Chain System -- 6.6 Machine Learning and Big Data -- 6.6.1 Overview of Shallow Models -- 6.6.1.1 Support Vector Machine (SVM) -- 6.6.1.2 Artificial Neural Network (ANN) -- 6.6.1.3 K-Nearest Neighbor (KNN) -- 6.6.1.4 Clustering -- 6.6.1.5 Decision Tree -- 6.7 Advantages of Using Big Data for Supply Chain and Blockchain Systems -- 6.7.1 Replenishment Planning -- 6.7.2 Optimizing Orders -- 6.7.3 Arranging and Organizing -- 6.7.4 Enhanced Demand Structuring -- 6.7.5 Real-Time Management of the Supply Chain -- 6.7.6 Enhanced Reaction -- 6.7.7 Planning and Growth of Inventories -- 6.8 IoT-Enabled Blockchains -- 6.8.1 Securing IoT Applications by Utilizing Blockchain -- 6.8.2 Blockchain Based on Permission -- 6.8.3 Blockchain Improvements in IoT.

6.8.3.1 Blockchain Can Store Information Coming from IoT Devices -- 6.8.3.2 Secure Data Storage with Blockchain Distribution -- 6.8.3.3 Data Encryption via Hash Key and Tested by the Miners -- 6.8.3.4 Spoofing Attacks and Data Loss Prevention -- 6.8.3.5 Unauthorized Access Prevention Using Blockchain -- 6.8.3.6 Exclusion of Centralized Cloud Servers -- 6.9 Conclusions -- References -- Chapter 7 Deep Learning Approach to Industrial Energy Sector and Energy Forecasting with Prophet -- 7.1 Introduction -- 7.2 Related Work -- 7.3 Methodology -- 7.3.1 Splitting of Data (Test/Train) -- 7.3.2 Prophet Model -- 7.3.3 Data Cleaning -- 7.3.4 Model Implementation -- 7.4 Results -- 7.4.1 Comparing Forecast to Actuals -- 7.4.2 Adding Holidays -- 7.4.3 Comparing Forecast to Actuals with the Cleaned Data -- 7.5 Conclusion and Future Scope -- References -- Chapter 8 Application of Novel AI Mechanism for Minimizing Private Data Release in Cyber-Physical Systems -- 8.1 Introduction -- 8.2 Related Work -- 8.3 Proposed Mechanism -- 8.4 Experimental Results -- 8.5 Future Directions -- 8.6 Conclusion -- References -- Chapter 9 Environmental and Industrial Applications Using Internet of Things (IoT) -- 9.1 Introduction -- 9.2 IoT-Based Environmental Applications -- 9.3 Smart Environmental Monitoring -- 9.3.1 Air Quality Assessment -- 9.3.2

Water Quality Assessment -- 9.3.3 Soil Quality Assessment -- 9.3.4
 Environmental Health-Related to COVID-19 Monitoring -- 9.4
 Applications of Sensors Network in Agro-Industrial System -- 9.5
 Applications of IoT in Industry -- 9.5.1 Application of IoT in the
 Autonomous Field -- 9.5.2 Applications of IoT in Software Industries --
 9.5.3 Sensors in Industry -- 9.6 Challenges of IoT Applications in
 Environmental and Industrial Applications -- 9.7 Conclusions and
 Recommendations -- Acknowledgments -- References.
 Chapter 10 An Introduction to Security in Internet of Things (IoT) and
 Big Data -- 10.1 Introduction -- 10.2 Allusion Design of IoT -- 10.2.1
 Stage 1-Edge Tool -- 10.2.2 Stage 2-Connectivity -- 10.2.3 Stage 3-
 Fog Computing -- 10.2.4 Stage 4-Data Collection -- 10.2.5 Stage 5-
 Data Abstraction -- 10.2.6 Stage 6-Applications -- 10.2.7 Stage 7-
 Cooperation and Processes -- 10.3 Vulnerabilities of IoT -- 10.3.1 The
 Properties and Relationships of Various IoT Networks -- 10.3.2 Device
 Attacks -- 10.3.3 Attacks on Network -- 10.3.4 Some Other Issues --
 10.3.4.1 Customer Delivery Value -- 10.3.4.2 Compatibility Problems
 With Equipment -- 10.3.4.3 Compatibility and Maintenance -- 10.3.4.4
 Connectivity Issues in the Field of Data -- 10.3.4.5 Incorrect Data
 Collection and Difficulties -- 10.3.4.6 Security Concern -- 10.3.4.7
 Problems in Computer Confidentiality -- 10.4 Challenges in
 Technology -- 10.4.1 Skepticism of Consumers -- 10.5 Analysis of IoT
 Security -- 10.5.1 Sensing Layer Security Threats -- 10.5.1.1 Node
 Capturing -- 10.5.1.2 Malicious Attack by Code Injection -- 10.5.1.3
 Attack by Fake Data Injection -- 10.5.1.4 Sidelines Assaults -- 10.5.1.5
 Attacks During Booting Process -- 10.5.2 Network Layer Safety Issues
 -- 10.5.2.1 Attack on Phishing Page -- 10.5.2.2 Attacks on Access --
 10.5.2.3 Attacks on Data Transmission -- 10.5.2.4 Attacks on Routing
 -- 10.5.3 Middleware Layer Safety Issues -- 10.5.3.1 Attack by SQL
 Injection -- 10.5.3.2 Attack by Signature Wrapping -- 10.5.3.3 Cloud
 Attack Injection with Malware -- 10.5.3.4 Cloud Flooding Attack --
 10.5.4 Gateways Safety Issues -- 10.5.4.1 On-Boarding Safely --
 10.5.4.2 Additional Interfaces -- 10.5.4.3 Encrypting End-to-End --
 10.5.5 Application Layer Safety Issues -- 10.5.5.1 Theft of Data --
 10.5.5.2 Attacks at Interruption in Service -- 10.5.5.3 Malicious Code
 Injection Attack.
 10.6 Improvements and Enhancements Needed for IoT Applications in
 the Future -- 10.7 Upcoming Future Research Challenges with Intrusion
 Detection Systems (IDS) -- 10.8 Conclusion -- References -- Chapter
 11 Potential, Scope, and Challenges of Industry 4.0 -- 11.1
 Introduction -- 11.2 Key Aspects for a Successful Production -- 11.3
 Opportunities with Industry 4.0 -- 11.4 Issues in Implementation of
 Industry 4.0 -- 11.5 Potential Tools Utilized in Industry 4.0 -- 11.6
 Conclusion -- References -- Chapter 12 Industry 4.0 and
 Manufacturing Techniques: Opportunities and Challenges -- 12.1
 Introduction -- 12.2 Changing Market Demands -- 12.2.1
 Individualization -- 12.2.2 Volatility -- 12.2.3 Efficiency in Terms of
 Energy Resources -- 12.3 Recent Technological Advancements -- 12.4
 Industrial Revolution 4.0 -- 12.5 Challenges to Industry 4.0 -- 12.6
 Conclusion -- References -- Chapter 13 The Role of Multiagent System
 in Industry 4.0 -- 13.1 Introduction -- 13.2 Characteristics and Goals
 of Industry 4.0 Conception -- 13.3 Artificial Intelligence -- 13.3.1
 Knowledge-Based Systems -- 13.4 Multiagent Systems -- 13.4.1 Agent
 Architectures -- 13.4.2 JADE -- 13.4.3 System Requirements Definition
 -- 13.4.4 HMI Development -- 13.5 Developing Software of Controllers
 Multiagent Environment Behavior Patterns -- 13.5.1 Agent Supervision
 -- 13.5.2 Documents Dispatching Agents -- 13.5.3 Agent
 Rescheduling -- 13.5.4 Agent of Executive -- 13.5.5 Primary Roles of

High-Availability Agent -- 13.6 Conclusion -- References -- Chapter 14 An Overview of Enhancing Encryption Standards for Multimedia in Explainable Artificial Intelligence Using Residue Number Systems for Security -- 14.1 Introduction -- 14.2 Reviews of Related Works -- 14.3 Materials and Methods -- 14.3.1 Multimedia -- 14.3.2 Artificial Intelligence and Explainable Artificial Intelligence -- 14.3.3 Cryptography. 14.3.4 Encryption and Decryption.

Sommario/riassunto

A ROADMAP FOR ENABLING INDUSTRY 4.0 BY ARTIFICIAL INTELLIGENCE The book presents comprehensive and up-to-date technological solutions to the main aspects regarding the applications of artificial intelligence to Industry 4.0. The industry 4.0 vision has been discussed for quite a while and the enabling technologies are now mature enough to turn this vision into a grand reality sooner rather than later. The fourth industrial revolution, or Industry 4.0, involves the infusion of technology-enabled deeper and decisive automation into manufacturing processes and activities. Several information and communication technologies (ICT) are being integrated and used towards attaining manufacturing process acceleration and augmentation. This book explores and educates the recent advancements in blockchain technology, artificial intelligence, supply chains in manufacturing, cryptocurrencies, and their crucial impact on realizing the Industry 4.0 goals. The book thus provides a conceptual framework and roadmap for decision-makers for implementing this transformation. Audience Computer and artificial intelligence scientists, information and communication technology specialists, and engineers in electronics and industrial manufacturing will find this book very useful.

| | |
|-------------------------|--|
| 3. Record Nr. | UNINA9910960886003321 |
| Autore | Hostettler John |
| Titolo | Fighting for justice : the history and origins of adversary trial // John Hostettler |
| Pubbl/distr/stampa | Winchester, UK, : Waterside Press Portland, Or., : [Distributed in North America by] International Specialised Book Services, 2006 |
| ISBN | 9786611124472 9781281124470 1281124478 9781906534165 1906534160 |
| Edizione | [1st ed.] |
| Descrizione fisica | 1 online resource (176 p.) |
| Disciplina | 347.42 |
| Soggetti | Adversary system (Law) - Great Britain - History - 18th century Criminal procedure - Great Britain - History - 18th century Trials - Great Britain - History - 18th century |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographic references and index. |
| Nota di contenuto | ""Cover""; ""Acknowledgements""; ""Preface""; ""Contents""; ""1 Introduction""; ""2 No Counsel for Prisoners""; ""3 Treason Trials Act: the Birth of Adversary Trial""; ""4 Rights of the Individual""; ""5 Sir William Garrow""; ""6 Garrow at the Old Bailey (1)""; ""7 Garrow at the Old Bailey (2)""; ""8 Rules of Criminal Evidence""; ""9 Counsel Finally Address the Jury""; ""10 Conclusion""; ""Glossary 1 Judicial and Historical Terms""; ""Glossary 2 Crimes Tried Frequently at the Old Bailey""; ""Bibliography""; ""Appendix""; ""Index""; ""Back cover"" |
| Sommario/riassunto | Adversary trial emerged in England only in the 18th century. Its origins and significance have tended to go unrecognised by judges, Lawyers, jurists and researchers until relatively modern times when conflict has become a key social issue. Even now, there is a major dispute as to how and why adversary trial came into existence and little connection has been made with its contribution to the genesis of many rules of evidence and procedure and the modern-day doctrine of human rights |

- whereby citizens are able to take a stand against the power of the state or vested interests. John Hostettler is an eminent commentator on criminal justice and its History. In this book he focuses not only on the birth and meaning of adversary trial but also on the historic central role of the Lawyer and advocate Sir William Garrow. Hostettler assesses how deep-rooted is the notion of opposing parties in the common Law, the English psyche and thus within other countries such as the USA that have followed the same model - whereby Lawyers champion opposing causes. A main aim of the book is to provide an aid to understanding of present-day moves for reform in the direction of restorative methods by outlining the contribution that adversary trial has made to the development of common Law systems.
