

1. Record Nr.	UNISA996547972803316
Titolo	Sustainable Computing : Transforming Industry 4. 0 to Society 5. 0 / / Shashank Awasthi [and five others], editors
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2023] ©2023
ISBN	3-031-13577-6
Descrizione fisica	1 online resource (352 pages)
Disciplina	658.4038028563
Soggetti	Computers - Environmental aspects Industry 4.0 Society 5.0
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Preface -- Acknowledgement -- Contents -- About the Editors -- A Review on Renewable Energy Sources, Potential and Policy in India -- Abbreviations -- 1 Introduction -- 2 Available Conventional Energy in India: Overview -- 2.1 Generation From Traditional Sources in India -- 2.1.1 Coal/Lignite -- 2.1.2 Hydro -- 2.1.3 Nuclear -- 2.1.4 Gas -- 3 Energy Scenario During 12th Five-Year Plan (2012-2017) [1] -- 4 Added Capacity Attained for the Duration of 12th Plan (Not Involved in the Targeted Capacity of 88,537 MW) [1, 3] -- 4.1 A Cooperative Analysis of 12th Plan with Earlier Five-Year Plans -- 4.2 Slipped Projects and Causes of Slippage from 12th Plan Capacity Addition Target [1] -- 5 Peak Demand and Energy Requisite Prediction -- 6 Renewable Energy Sources: Potential in India -- 6.1 Solar Energy -- 6.2 Wind Energy -- 6.3 Biomass Energy -- 6.4 Small Hydro Power (SHP) -- 6.5 Ocean Surface Waves and Tidal Power -- 6.6 Installed RES Potential in India -- 7 Capacity Addition from RES in 12th Plan -- 8 RES Policy of India -- 9 Recent Renewable Energy Initiatives -- 9.1 Solar Parks -- 9.2 Solar Cities -- 9.3 Solar Pump -- 10 Other Programs/Policies/Schemes -- 11 Future Potential of Renewable Energy in India -- 11.1 Renewable Energy Target by 2022 -- 12 Projection of Renewable Energy Generation -- 12.1 Perspective Plan 2022 -- 12.2 Perspective Plan for Grid-Interactive Renewable Power -- 12.3 Perspective Plan for

Renewable Power for Urban, Industrial, and Commercial Applications -- 12.4 Medium Term (2032) Deployment Goals -- 13 Conclusion -- 14 Future Work -- References -- Analysis of Brain Signals to Forecast Motor Intentions Using Artificial Intelligence -- 1 Introduction -- 1.1 State of the Art -- 1.2 Our Proposal -- 2 Material and Methods -- 2.1 Database -- 2.2 Pre-processing -- 2.3 Feature Extraction -- 2.4 Classifiers -- 2.4.1 Decision Trees. 2.4.2 Linear Discriminant Analysis -- 2.4.3 Logistic Analysis -- 2.4.4 Support Vector Machine -- 2.4.5 K-Nearest Neighbors -- 2.4.6 Ensemble Methods -- 2.4.7 Neural Networks -- 3 Methodology -- 3.1 Feature Extraction Algorithm -- 4 Results and Discussion -- 4.1 Results -- 4.2 Discussion -- 5 Conclusions -- References -- Automated Detection of Covid-19 Waves with Computerized Tomography Scan Using Deep Learning -- 1 Introduction -- 2 Related Studies -- 2.1 Molecular RT-PCR Test -- 2.2 RAT Tests -- 2.3 Serological Tests -- 3 ML Algorithm Focused on Diagnosis Using CT Scan Images -- 3.1 Multiple Instance Learning (MIL) -- 3.2 Why Deep Learning over Machine Learning -- 4 DL Algorithm Focused on Diagnosis Using CT Scan Images -- 4.1 Deep Neural Network (DNN) -- 4.2 Convolutional Neural Network -- 4.3 Deep Convolutional Neural Network (DCNN) -- 4.4 Transfer Learning Techniques in Deep Learning -- 5 Conclusion -- References -- Internet of Things (IoT) in the Agriculture Sector: Challenges and Solutions -- 1 What Is Advance Agriculture? -- 2 Why Is It Necessary to Adapt to the Advancement of Agriculture? -- 3 Benefits of Using IoT in Agriculture -- 4 Infusion of Internet of Things in Agriculture -- 5 Challenges Encountered in Infusion of IoT in Agriculture -- References -- Implementation of Women's Self-Security System Using IoT-Based Device -- 1 Introduction -- 2 Existing System -- 3 Proposed System -- 4 Methodology -- 5 Result and Discussion -- 6 Conclusion -- References -- Evolution of Hadoop and Big Data Trends in Smart World -- 1 Introduction to Big Data -- 2 The Three V's -- 3 Challenges with Big Data -- 4 Hadoop Architecture: HDFS and Map-Reduce -- 5 HDFS -- 5.1 Features of HDFS -- 5.2 Storage in HDFS -- 6 MapReduce -- 7 Hadoop Ecosystem and Components -- 7.1 YARN (Yet Another Resource Negotiator) -- 7.2 Pig -- 7.3 Hive -- 7.4 HBase -- 7.5 Cassandra. 7.6 Sqoop and Flume -- 7.7 Apache Spark -- 8 Hadoop 3.0 Upgradation -- 9 Applications and Future -- 9.1 Predictive Policing -- 9.2 Unique Identity Project: From Cradle to Grave -- 9.3 Intelligent Transportation System -- 9.4 Smart Meters -- References -- Experimental Investigation of Eco-enzyme and Its Application for Removal of Foul Odour and Organic Impurities -- 1 Introduction -- 2 Materials and Methods -- 3 Results -- 3.1 Laboratory Results -- 3.1.1 Sample Collection -- 3.2 Field Results -- 3.2.1 Barapullah Drain, Delhi (16 February to 9 March 2016) -- 3.2.2 Drains at Pune -- 3.2.3 Sanjay Park, East Delhi -- 3.2.4 Ponds in Chennai -- 3.2.5 STP at Chandigarh -- 3.2.6 Drains of Azamgarh City -- 3.2.7 Garbage Dump Yard at Ghaziabad, UP -- 3.2.8 Two Garbage Dump Yards at Dehradun (Uttarakhand) -- 3.2.9 Garbage Dump Yard at Akola (Maharashtra) -- 4 Conclusions -- References -- Sign Language Recognition Using AI -- 1 Introduction -- 2 Literature Survey -- 3 Proposed Methodology -- 3.1 Implementation Model -- 4 Results -- 5 Conclusion, Limitations, and Future Scope -- 5.1 Conclusion -- 5.2 Limitations -- 5.3 Future Scope -- References -- Data Leakage Detection and Prevention Using Cloud Computing -- 1 Introduction -- 1.1 Motivation -- 2 Data Loss Prevention -- 2.1 Limitations of Cloud DLP -- 3 Related Work -- 3.1 Watermarking Technique -- 3.2 Fake Objects Method -- 3.3 Adversary

Model -- 4 Secure Hashing Algorithm (SHA) -- 5 Proposed Model -- 5.1 Data Allocation -- 5.2 Fake Object Module -- 5.3 Optimization Module -- 5.4 Data Distribution Module -- 6 Conclusion -- References -- To Brace Society 5.0: Enhanced Reliability with a Cost-Effective Protocol for Underwater Wireless Sensor Network -- 1 Introduction -- 2 Literature Review -- 3 System Model -- 3.1 Transmission-Power and SNR -- 3.2 Signal-to-Noise Ratio and PDR -- 4 Proposed Model. 4.1 Initial Phase -- 4.2 Graph Building -- 4.3 Transmission Phase -- 5 Results -- 5.1 Evaluation of SNR -- 5.2 Evaluation of BER -- 5.3 Evaluation of PDR -- 6 Conclusion -- References -- A Novel Algorithm for Reconfigurable Architecture for Software-Defined Radio Receiver on Baseband Processor for Demodulation -- 1 Introduction -- 2 Background -- 2.1 Baseband Demodulation -- 2.2 OFDM -- 2.3 Channel Equalization -- 2.4 Phase Offset Correction -- 2.5 QAM (Quadrature Amplitude Modulation) Demapping -- 3 Algorithm Analysis -- 3.1 Dataflow for Channel Selection/FFT -- 3.2 Signal Flow Graph for FIR/FFT -- 4 Architecture Design Approach -- 4.1 Reconfigurability -- 4.2 Data Path -- 4.3 The Communication Interface -- 4.4 The Processing Part -- 4.5 The Storage Part -- 4.6 The Configuration Part -- 4.7 Control Section -- 4.8 Configuration Unit -- 5 Algorithm Mapping -- 5.1 Mapping of Matched FIR Filter -- 5.2 Mapping of FFT -- 6 Synthesis and Evaluation -- 6.1 Synthesis Results for the SDR Receiver -- 6.2 Comparison of Proposed Design with Montium TP -- 6.3 Comparison of Different Implementations -- 7 Conclusions -- 8 Future Work -- References -- Methods and Application of 3D Printing in Implantable Medical Devices -- 1 Introduction -- 2 3D Printing Manufacturing Process -- 2.1 Stereolithography -- 2.2 Laminated Object Manufacturing -- 2.3 Selective Laser Sintering (SLS) -- 2.4 Fused Deposition Modeling -- 2.5 3D Printing -- 2.6 Photopolymer Jetting -- 2.7 Powder Binder Printer -- 3 Importance of 3D Printing (Medical Field) -- 3.1 3D Printing Materials (Implantable Medical Device) -- 3.1.1 Polymer Materials -- 3.1.2 Metal Materials -- 3.1.3 Ceramic Materials -- 3.1.4 Composite Materials -- 3.1.5 Derived Materials -- 3.2 Medical Devices Printed in 3D -- 3.2.1 Vascular Stents -- 3.2.2 Prosthetic Valve -- 3.2.3 Artificial Joint Prostheses. 3.2.4 Engineering of Hard and Soft Tissues -- 3.2.5 Peripheral Hip Diseases -- 4 Conclusion -- References -- Fuzzy-Based Hierarchical Routing Protocol for Wireless Sensor Networks -- 1 Introduction -- 2 Existing Systems -- 3 Proposed Model -- 4 System Model -- 5 Implementation and Results -- 6 Conclusion -- References -- A Review of AI-Based Diagnosis of Multiple Thoracic Diseases in Chest Radiography -- 1 Introduction -- 2 Important Design Factors -- 2.1 Learning Forms -- 2.2 Network Architecture -- 2.3 Training Types -- 3 Multiple Disease Classification -- 3.1 Evaluation Metrics Used -- 3.2 Popular Dataset -- 3.3 State-of-the-Art Models -- 4 Discussion and Future Trends -- 5 Conclusion -- References -- Introduction to Deep Learning -- 1 Introduction -- 2 Machine Learning Versus Deep Learning -- 3 The Architecture of Deep Learning -- 3.1 Supervised Learning -- 3.2 Convolutional Neural Network -- 3.3 Recurrent Neural Networks -- 3.4 LSTM Networks -- 3.5 GRU Networks -- 3.6 Unsupervised Deep Learning -- 3.7 Self-Organized Map -- 3.8 Autoencoder -- 3.9 Restricted Boltzmann Machine -- 3.10 Deep Belief Network (DBN) -- 3.11 Deep Stacking Network (DSN) -- 4 Applications -- References -- Methodological Assessment of Various Algorithm Types for Load Balancing in Cloud Computing -- 1 Introduction -- 2 Load Balancing -- 3 Data Source -- 3.1 Search Criteria -- 3.2 Evaluation of the Level of Quality -- 4 Methods for Having to Balance

Workloads -- 4.1 There Are Two Varieties of It Based on the Current
State of the System -- 4.2 Load Balancing Metrics [18] -- 5
Comparative Study (Fig. 8) -- 6 Conclusion -- References -- Extraction
Techniques and Evaluation Measures for Extractive Text Summarisation
-- 1 Introduction -- 2 Related Work on Extractive Text Summarisation
-- 3 Extractive vs Abstractive Summarisation Method.
3.1 Steps Followed by Extractive-Based Summarisation Methods.
