1. Record Nr. UNINA9910495202503321

Titolo	Intelligent communication, control and devices : proceedings of ICICCD 2020 ; Dehradun, India, 27-28 November, 2020 / / editors, Sushabhan Choudhury [et al.]
Pubbl/distr/stampa	Singapore : , : Springer, , [2021] ©2021
ISBN	981-16-1510-1
Descrizione fisica	1 online resource (421 pages)
Collana	Advances in Intelligent Systems and Computing ; ; 1341
Disciplina	621.3
Soggetti	Artificial intelligence - Industrial applications Automatic control Telecommunication systems - Control
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes author index.
Nota di contenuto	Intro -- Preface -- Contents -- About the Editors -- Improvement of QOS by Optimizing 2.4 GHZ RF Network Parameters for Oil Pipeline Management -- 1 Introduction -- 1.1 Literature Review -- 2 Proposed Methodology -- 2.1 Simulation for Optimizing Zigbee Module -- 3 Results and Discussions -- 4 Conclusion -- References -- Transient Stability Enhancement via Sliding Mode Control for Lower Order Triangular System -- 1 Introduction -- 2 Lower Order Triangular System and Proposed Sliding Mode Control Algorithm -- 3 SMIB Model and Application of Sliding Mode Algorithm Framework -- 4 Simulation and Case Study -- 5 Discussion -- 6 Conclusion -- References -- A Convolution Neural Networks and IoT-Based Approach to Surveillance System -- 1 Introduction -- 2 Proposed Model -- 3 System Implementation and Results -- 4 Conclusion -- References -- Prevent Road Accident Using Intelligent Device -- 1 Introduction -- 1.1 Road Accidental Deaths and Injuries in India -- 2 Proposed Solution -- 2.1 Intelligent Device -- 2.2 Mobile Application -- 3 Implementation of the Algorithm on Microcontroller -- 4 Results -- 5 Conclusion -- References -- Choice of Suitable Height of Substrate in the Designing of Microstrip Antenna for X-band Communication -- 1 Introduction -- 2 Antenna Design -- 3 Results -- 4 Impedance Calculation Using

Transmission Line Model -- 5 Conclusion -- References -- Comparative Analysis of Multi-slot Circular Patch Antenna -- 1 Introduction -- 2 Circular Patch Antenna Structure Design -- 3 Results of Simulated Antennas -- 4 Conclusions -- Reference -- Active Power Curtailment in PV Array Under LVRT Condition -- 1 Introduction -- 2 System Description -- 3 Controller Design -- 4 Simulation Results -- 5 Conclusion -- References -- Autonomous Tomato Harvester Using Robotic Arm and Computer Vision -- 1 Introduction -- 2 Literature Review -- 3 Motivation.
4 Problem Definition -- 4.1 Farmers Put in a Lot of Time and Labour with no Use of Technology -- 4.2 Manpower Shortage -- 4.3 Lack of Products for the Indian Market -- 5 Proposed Solution -- 6 Project Description -- 6.1 Motors -- 6.2 Motor Driving Circuit -- 6.3 Raspberry Pi 3 -- 6.4 Wireless Data Transmission -- 6.5 Sensors -- 6.6 Image Processing and Tomato Detection -- 7 Limitations -- 8 Future Scope -- 9 Conclusion -- References -- Impact of Inclination of Path Profiles on the Performance of Electric Vehicles -- 1 Introduction -- 1.1 Fundamentals of Electric Vehicle -- 2 Literature Review on EV Research -- 3 Modeling and Simulation -- 4 Results and Discussions -- 5 Conclusion -- References -- Design of Environment-Friendly FIR Filter and Its Implementation on FPGA for Green Communication -- 1 Introduction -- 2 Literature Review -- 3 Load Capacitance and Its Role in Energy Efficiency of FIR Filter -- 4 Conclusion -- 5 Future Scope -- References -- Atomistic Simulation Studies of the Mechanical and Thermal Properties of Silver Nanowires as Interconnects for Nanoelectronics Applications -- 1 Introduction -- 2 Simulation Methodology -- 3 Results and Discussion -- 3.1 Deformation Properties -- 3.2 Melting Properties -- 4 Conclusions -- References -- Mobility Management Scheme During Offloading in Mobile Cloud Computing -- 1 Introduction -- 2 Related Work -- 3 Proposed Mobility Scheme During Computational Offloading -- 3.1 Proposed Technique -- 4 Performance Evaluation -- 4.1 Experiment Settings -- 4.2 Results and Discussion -- 5 Conclusion -- References -- Multiuser Detection for MIMO-OFDM System Using Binary Spotted Hyena Optimizer in UWA Communication -- 1 Introduction -- 2 Problem Formulation and Contribution of This Study -- 3 Proposed BSHO Algorithm-Based MUD -- 4 Result and Discussion -- 5 Conclusion -- References. Estimation of Solar Radiation at Farasan Island with Two-Step ANN Concepts -- 1 Introduction -- 2 Research Method -- 2.1 ANN-1 Design -- 2.2 ANN-2 Design -- 3 Results and Discussions -- 3.1 Accuracy of Daily Average Solar Radiation Estimation -- 3.2 Accuracy of Hourly Solar Radiation Estimation -- 4 Conclusion -- References -- Development of Matlab/Simulink Library for Unsupported Microcontrollers, Case Study: STM32F407 -- 1 Introduction -- 2 Architecture of Designed Library -- 3 Design Procedures -- 3.1 Implementation of the Custom Blocks -- 3.2 Embedded C Code Generation -- 4 Designed Library -- 4.1 Library Installation -- 4.2 Embedded C Code and Keil C Project -- 5 Conclusion -- References -- A Novel Bistatic LIDAR Device with 1570 nm Centre Wavelength Diode for Detection of Plant Disease -- 1 Introduction -- 1.1 Rice Leaf Blight and Blast Disease -- 1.2 CO2 Sinks by Plants -- 2 Information from HITRAN 2020 -- 2.1 Bistatic LIDAR System Concept -- 2.2 DIAL Measurement Principles -- 2.3 Discussion -- 3 Conclusions -- References -- FPGA-Based Power Optimized CAM Design Using LVCMOS18 and High-Speed Low Voltage Digitally Controlled Impedance -- 1 Introduction -- 1.1 Content-Addressable Memory -- 2 Literature Review -- 3 Power Analysis of Content Addressable Memory -- 4 Conclusion -- 5 Future Scope -- References -- Design of Chili

Fruit Flipping Mechanism for Identification of the Damages Caused by Diseases -- 1 Introduction -- 2 Mechanism Design -- 2.1 The Identification Ability of CNN Model -- 2.2 Design of the Flipping Mechanism -- 3 Fabricating and Testing the Mechanism -- 3.1 Manufacturing and Fabricating the Model -- 3.2 Testing the Flipping Ability -- 3.3 Evaluation of the Fruit's Destroying Caused by the Mechanism -- 4 Discussion -- 5 Conclusion -- References -- Performance Analysis of Pentuple Micro-optical Asymmetric Ring Resonator.
1 Introduction -- 2 Modeling of the Proposed PMAORR -- 3 Transfer Function-Mason's Gain Rule -- 4 Characteristic of MRR -- 5 Simulation Results and Discussion -- 6 Conclusion -- References -- MPPT Control of Hydrokinetic Energy Conversion System -- 1 Introduction -- 2 Configuration of HECS -- 3 Modeling of the HECS -- 3.1 Hydrokinetic Turbine Model -- 3.2 PMSG and Power Converter Circuit Model -- 4 Proposed MPPT Control Algorithm -- 5 Results and Discussion -- 6 Discussion -- 7 Conclusion -- References -- Using Adaptive Reduced Power Subframes to Mitigate Inter-Cell Nosiness in Heterogeneous Networks -- 1 Introduction -- 2 Related Work in Icnc -- 3 Proposed Work -- 4 Conclusions -- References -- Solution of Economic Load Dispatch Using Flower Pollination Algorithm -- 1 Introduction -- 2 Statement of Crisis -- 3 Proposed Algorithm of FPA -- 4 Result and Discussion -- 5 Conclusion -- References -- Fault Detection in Overhead Lines Using IoT-Enabled Fault Passage Indicator -- 1 Introduction -- 2 Historical Review: Fault Passage Indicators -- 3 Advantages of FPIs -- 4 Methodology -- 4.1 Proposed Method for Fault Location Identification -- 5 Simulation Results -- 6 Conclusion -- References -- Linear State Estimation for Power Systems Based on PMU Measurements -- 1 Introduction -- 2 Problem Formulation -- 2.1 Proposed Method -- 3 Procedure for Computation -- 3.1 Optimal Placement of PMUs -- 3.2 Proposed SE with PMU Measurement -- 4 Simulation Results -- 4.1 Simulation Description -- 4.2 Discussion of Results -- 5 Conclusions -- References -- Improvement of PID Controllers by Recurrent Fuzzy Neural Networks for Delta Robot -- 1 Introduction -- 2 Materials and Methods -- 2.1 Delta Robot Model -- 2.2 RFNN-PID Controller Design -- 3 Specifications and Simulation Results -- 3.1 Parameters of Delta Robot -- 3.2 Simulation Results -- 4 Conclusion -- References.
Vision-Based Measurement of Leaf Dimensions and Area Using a Smartphone -- 1 Introduction -- 2 Material and Methods -- 3 Leaf Dimension Measurement -- 3.1 Square Mesh Extraction -- 3.2 Geometric Distortion Correction -- 3.3 Leaf Dimension Measurement -- 4 Accuracy Assessment -- 5 Experimental Results -- 6 Conclusion -- References -- Long-Range Radio and Vision Node Based Waste Management System -- 1 Introduction -- 2 Prior Art -- 3 Proposed Architecture -- 4 Hardware Specification -- 5 Conclusion -- References -- Predicting the COVID-19 Cases in India -- 1 Introduction -- 1.1 Impact of AI in COVID-19 -- 2 Demographics-Based Analysis Preparation -- 3 COVID-19 Predictions for India -- 3.1 Lockdown and Unlock Timeline in India -- 3.2 Prophet Prediction Model -- 3.3 ARIMA Prediction Model -- 4 Conclusion -- References -- Experimental Evaluation of the Performance of Diaphragm Spring Clutch of a Four-Stroke Multi-cylinder Petrol Engine Under Dry Friction Conditions -- 1 Introduction -- 2 Experimental Setup -- 3 Experimental Results -- 4 Conclusion -- References -- Cognitive Radio-Based Spectrum Allocation Method for Next Generation Cellular Networks -- 1 Introduction -- 2 System Analysis and Problem Formulation -- 2.1 Spectrum Allocation in LTE System -- 2.2 Inter-Cell Interference -- 3

Prosed Method Based on Cognitive Spectrum Allocation -- 4 Performance Analysis and Simulation Result -- 5 Conclusion -- References -- Investigation of Analog Parameters and Miller Capacitance Affecting the Circuit Performance of Double Gate Tunnel Field Effect Transistors -- 1 Introduction -- 2 Setup of Device Simulations for DGTFET -- 3 Results and Discussion -- 3.1 Analysis of I-V/C-V Characteristics of DGFET -- 3.2 Analysis of Analog Performance of DGTFET -- 3.3 Transient Performance of TFET to Analyze the Impact on Miller Capacitance (CMIL) -- 4 Conclusion. References.

Sommario/riassunto

This book focuses on the integration of intelligent communication systems, control systems and devices related to all aspects of engineering and sciences. It includes high-quality research papers from the 4th International Conference on Intelligent Communication, Control and Devices (ICICCD 2020), organized by the Department of Electronics, Instrumentation and Control Engineering at the University of Petroleum and Energy Studies, Dehradun, India during 27-28 November 2020. The topics covered are a range of recent advances in intelligent communication, intelligent control, and intelligent devices.