1. Record Nr. UNINA9910917197403321

Autore	Shrivastava Vivek
Titolo	Power Engineering and Intelligent Systems : Proceedings of PEIS 2024, Volume 2
Pubbl/distr/stampa	Singapore : , : Springer, , 2024 ©2024
ISBN	9789819767144 9819767148
Edizione	[1st ed.]
Descrizione fisica	1 online resource (531 pages)
Collana	Lecture Notes in Electrical Engineering Series ; ; v.1247
Altri autori (Persone)	BansalJagdish Chand PanigrahiB. K
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Organization -- Preface -- Contents -- About the Editors -- Study of the Optimal Sizing of Battery Energy Storage Systems for Microgrid Applications -- 1 Introduction -- 2 Literature Review -- 3 Application (Role) of ESS on the Generation Side -- 4 Applications (Role) of ESS for the End User -- 5 Results and Discussion -- 6 Conclusion and Future Directions -- References -- Integrated State of Charge and State of Health Method for Operating Range Prediction in Electric Vehicles -- 1 Introduction -- 1.1 SOC Estimation -- 1.2 SOH Estimation -- 1.3 Integrated SOC and SOH Estimation -- 2 Proposed Simulink Model -- 2.1 Battery Model -- 2.2 Thermal Model -- 2.3 State of Charge (SOC) Model -- 2.4 SOH Model -- 2.5 Range Prediction -- 3 Results and Discussion -- 3.1 SOC Prediction -- 3.2 SOH Prediction -- 3.3 Range Prediction -- 4 Conclusion -- References -- Crime Prediction Using Ensemble Machine Learning Approach -- 1 Introduction -- 2 Related Work -- 3 Theoretical Background -- 4 Goals and Objectives -- 5 Methodology -- 5.1 Dataset Description -- 5.2 Data Preprocessing -- 5.3 EDA -- 5.4 Ensemble Learning -- 6 System Architecture -- 7 Results and Discussion -- 8 Conclusions -- 9 Future Scope -- References -- Gated Recurrent Unit with Attention Mechanism for IC50 Prediction Model Using Amyotrophic Lateral Sclerosis Related Proteins -- 1 Introduction -- 2 Databases and Dataset Preparation -- 3

Model Building -- 4 Results and Discussion -- 5 Conclusion -- References -- Exploring Echo State Network for Detection of Gait Freezing in Parkinson's Patients Optimized Through Modified Metaheuristics -- 1 Introduction -- 2 Related Works -- 2.1 Echo State Networks -- 3 Method -- 3.1 Original COA -- 3.2 Modified COA -- 4 Experimental Setup -- 5 Simulation Outcomes -- 6 Conclusion -- References.
Computer Vision-Based Self-inflicted Violence Detection in High-Rise Environments Using Deep Learning -- 1 Introduction -- 2 Literature Review -- 2.1 Self-inflicted Violence Prevention Strategies [5] -- 2.2 Self-inflicted Violence Detection Systems [6] -- 2.3 Computer Vision Techniques -- 2.4 Deep Learning Algorithms -- 2.5 Research Gaps -- 2.6 Relevant Case Studies -- 3 Methodology -- 3.1 Data Used -- 3.2 Flow of Frame Feeds -- 3.3 Video Processing Techniques -- 3.4 Alert and Intervention Mechanisms -- 3.5 DeepSORT Algorithm [22] -- 3.6 Record Updating -- 3.7 Display of Message -- 3.8 Curse of NMS -- 3.9 Updating Non-decreasing Probability and Color on the Frame -- 4 Results and Discussion -- 5 Conclusion -- References -- Sliding Mode Control Strategies for Maglev Systems Based on Kalman Filtering -- 1 Introduction -- 1.1 Sliding Mode Control Strategies -- 1.2 Kalman Filters -- 1.3 Contribution and Structure of the Paper -- 2 Mathematical Model -- 3 Controller Design -- 3.1 Sliding Mode Control -- 3.2 Backstepping Sliding Mode Control -- 4 Kalman Filter Design -- 5 Simulation Results -- 6 Conclusion -- References -- A Deep Learning Framework on Embedded ADAS Platform for Lane and Road Detection -- 1 Introduction -- 2 Related Work -- 3 Methodology -- 3.1 Camera -- 3.2 Architecture of ResNet-18 -- 3.3 Embedded ADAS Platform -- 4 Implementation Details -- 4.1 Dataset -- 4.2 Implementation on HIL -- 4.3 Road and Scenerio Generation -- 4.4 Algorithm for Lane Detection -- 5 Results -- 5.1 Detection of Lane -- 6 Conclusion and Future Scope -- 6.1 Conclusion -- 6.2 Future Scope -- References -- Innovative Convolutional Neural Network Approach to Enhance Real-Time Face Recognition Accuracy -- 1 Introduction -- 2 Exploring System Limitations -- 2.1 Tackling Uncontrolled Environments -- 2.2 Demanding Computational Resources -- 2.3 Pursuit of Precision.
3 Related Work -- 3.1 Enrolling New Offenders -- 3.2 Refining Image Preprocessing -- 3.3 Unearthing Distinctive Features -- 3.4 The Matching -- 4 Methodology -- 5 Results -- 6 Conclusion -- References -- Tomato Plant Leaf Disease Prediction and Suggestion Using Deep Learning -- 1 Introduction -- 2 Literature Survey -- 3 Proposed Methodology -- 3.1 Dataset -- 4 Result Analysis and Evaluation Metrics -- 5 Conclusion and Future Work -- References -- A Hybrid Approach for Deep Fake Detection Using Deep Learning Algorithm -- 1 Introduction -- 2 Literature Survey -- 3 Dataset -- 4 Methodology -- 5 Result and Analysis -- 6 Conclusion and Future Work -- References -- Decoding Retinoblastoma: Unraveling Genetic Variants Through Bioinformatics and Next-Generation Sequencing Data Analysis -- 1 Introduction -- 1.1 Overview of Research -- 2 Research Objectives -- 3 Materials and Methodology -- 3.1 Materials -- 4 Results -- 5 Discussion -- 6 Conclusion and Future Work -- References -- Optimizing PV Inverter Performance with Particle Swarm Optimization and Sugeno Fuzzy Logic for Reduced THD in Mismatched Conditions -- 1 Introduction -- 2 Related Work -- 3 Methodology -- 3.1 Particle Swarm Optimization (PSO) Methodology -- 3.2 Sugeno Fuzzy Logic Integration -- 3.3 Rationale Behind Combining PSO with Sugeno Fuzzy Logic -- 4 Modeling and Simulation -- 5 Results -- 5.1 Evaluation of Total Harmonic Distortion -- 5.2 Comparative Results -- 6 Conclusion -- References -- Solar on Water: Examining the Feasibility

of Floating PV at Bhakra Nangal Dam -- 1 Introduction -- 2 Floating PV System Plants -- 3 Research Methodology -- 3.1 Data Collection -- 3.2 Data Analysis -- 3.3 Mathematical Equations -- 3.4 Flowchart of Procedure -- 4 Result and Discussion -- 4.1 Design Work -- 4.2 Design Models -- 4.3 Model Analysis -- 5 Conclusion -- References. Deep Learning for Digital Olfaction: Graph-Based Self-Supervised Learning -- 1 Introduction -- 1.1 Digital Olfaction -- 1.2 Gas Chromatography -- 1.3 Molecule Structure and Odor Relationship -- 2 Related Work -- 2.1 Dragon and Mordred Features -- 2.2 Molecular Fingerprints -- 2.3 ODRP: A Deep Learning Framework for Odor Descriptor Rating Prediction Using Electronic Nose -- 2.4 GNN Based Model -- 3 Proposed Work -- 3.1 Self-supervised Learning -- 3.2 Graph Self-supervised Learning -- 3.3 Contrastive Graph Self-supervised Learning -- 4 Result -- 5 Conclusion -- References -- Leveraging Regression Techniques to Predict Crime Rates in India: A State-Wise Analysis -- 1 Introduction -- 2 Literature Review -- 3 Research Methodology -- 4 Data Analysis -- 5 Conclusion and Limitations -- References -- Autoencoder-Huffman Ensemble Model for Image Compression -- 1 Introduction -- 1.1 Compression -- 2 Literature Survey -- 2.1 Traditional Compression Methods -- 2.2 Deep Learning -- 2.3 Auto Encoder -- 2.4 Types of Auto Encoder -- 2.5 Evaluation Metrics -- 3 Methodology -- 4 Results and Discussions -- 4.1 MNIST -- 4.2 CIFAR-10 -- 4.3 Fashion MNIST -- 5 Conclusion and Future Work -- References -- Spatial-Spectral Analysis of Hyperspectral Imagery with Multilevel Thresholding and Multi-OTSU Segmentation -- 1 Introduction -- 2 Background Study -- 3 Dataset Description -- 4 Methodology -- 4.1 Multilevel Thresholding-Based Segmentation -- 4.2 Multi-Otsu Segmentation -- 4.3 Accuracy Metrics -- 5 Results -- 6 Conclusion -- References -- Advanced Deep Learning Architectures for Remote Sensing-Based Segmentation -- 1 Introduction -- 2 Datasets -- 3 Methodology -- 4 Results -- 5 Discussion -- 6 Conclusion -- References -- Wideband Isolation and Gain Enhancement of Sub-6 GHz MIMO Antenna Using an Asymmetric Epsilon Negative Metasurface Reflector -- 1 Introduction.
2 Design of Slotted Rhombus MIMO Antenna -- 3 Design of Epsilon Negative (ENG) Unit Cell -- 3.1 Design and Placement of Plus-Shaped ENG Reflector Layer onto MIMO Antenna -- 4 Results and Discussion -- 4.1 S-Parameter Response -- 4.2 Radiation Pattern -- 4.3 Mimo Performance Metrics. -- 5 Conclusion -- References -- Design and Testing of U-type Electromagnetic Actuator for Magnetic Bearing -- 1 Introduction -- 2 Actuator and Rotor Specification and Design -- 2.1 Rotor -- 3 The Actuator and Rotor Design and Testing -- 3.1 DC Test Without Object for Measuring Resistance -- 3.2 Inductance Measurement Using AC Test with Object -- 3.3 Measuring Attractive Force Using the Load Cell Test -- 4 Conclusion -- References -- Various Compensation Topologies Used in Wireless Power Charger for EV: Classification, Component Design, and Comparison -- 1 Introduction -- 2 Wireless Power Transfer -- 3 Need of Compensation Topologies -- 4 Classification of Compensation Topologies -- 4.1 No. of One Resonant Element on Both Sides -- 5 Comparison of Compensation Topologies or Networks -- 6 Conclusion -- References -- Analysis of Modified Shunt Active Power Filter Based on One Cycle Control -- 1 Introduction -- 2 Power Stages and Analytical Analysis of Shunt APF -- 2.1 Inverter for Proposed SAPF -- 2.2 Mathematical Analysis of SAPF -- 3 Simulation Results and Analysis -- 4 Conclusion -- References -- MACBT Algorithm: A Two-Factor Security Design -- 1 Introduction -- 2 Review of Recent

Technology Used to Improve the Security of WSN -- 3 Proposed Methodology -- 4 Result Analysis -- 5 Conclusion -- References -- YOLOv5-Enhanced Ornithopter UAV Simulator for Multi-object Detection -- 1 Introduction -- 1.1 Problem Statement -- 1.2 Motivation -- 1.3 Our Work Contributions -- 1.4 Outline of the Paper -- 2 Literature Survey -- 3 Proposed Methodology.
3.1 Design and Development of Ornithopter UAV.