

1. Record Nr.	UNINA9910855387803321
Autore	García Márquez Fausto Pedro
Titolo	Emerging Trends and Applications in Artificial Intelligence : Selected Papers from the International Conference on Emerging Trends and Applications in Artificial Intelligence (ICETAI)
Pubbl/distr/stampa	Cham : , : Springer International Publishing AG, , 2024 ©2024
ISBN	3-031-56728-5
Edizione	[1st ed.]
Descrizione fisica	1 online resource (611 pages)
Collana	Lecture Notes in Networks and Systems Series ; ; v.960
Altri autori (Persone)	JamilAkhtar HameedAlaa Ali Segovia RamírezIsaac
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface -- Organization -- Contents -- About the Editors -- Simultaneous Optimization of Ride Comfort and Energy Harvesting Through a Regenerative, Active Suspension System Using Genetic Algorithm -- 1 Introduction -- 1.1 Suspension System and Vehicle Vibration -- 1.2 Ride Comfort Measurement -- 1.3 Energy Harvesting Through Suspension System -- 1.4 Optimization Using Genetic Algorithm -- 2 Software and Analytical Modeling -- 2.1 Analytical Model Extraction -- 3 Defining the Control Structure and Parameters -- 3.1 Defining the Control Vector -- 3.2 Defining the Control Parameters and Their Limitations -- 4 Defining the Genetic Algorithm and the Test Procedure -- 4.1 Defining the Search Space and Initial Population -- 4.2 Developing a Fitness Function for Evaluating Ride Comfort -- 4.3 Developing a Fitness Function for Evaluating Energy Harvesting -- 4.4 Defining the Total Fitness Function -- 4.5 Designing the Test Procedure -- 5 Optimization Process Execution and Result Comparison -- 5.1 Optimization Algorithm Convergence and The Best Selection -- 5.2 Performance Comparison Between Optimized and Base System -- 6 Conclusion -- References -- Demystifying Deep Learning Techniques in Knee Implant Identification -- 1 Introduction -- 2 Literature Review -- 3 Data Set Description -- 4 Methods and Methodology -- 4.1

Training Set -- 4.2 Testing Set -- 4.3 Data Augmentation -- 4.4 Deep Learning Methods -- 4.5 Proposed Model -- 4.6 Performance Metrics -- 5 Results and Discussions -- 5.1 Data Augmentation -- 5.2 Deep Learning Results -- 6 Conclusion -- References -- Artificial Neural Network Model of Nonlinear Behavior of Micro-ring Gyroscopes -- 1 Introduction -- 2 Theoretical Formulation -- 3 Results and Discussions -- 3.1 Comparison and validation -- 3.2 Time Response of Micro-gyroscope -- 3.3 Neural Network -- 4 Conclusion -- References.

A Framework for Knowledge Representation Integrated with Dynamic Network Analysis -- 1 Introduction -- 2 State of the Art -- 2.1 Dynamic Network Analysis -- 2.2 Knowledge Graph Analysis -- 3 Methodology and Results -- 3.1 Dataset -- 3.2 Knowledge Modeling -- 3.3 Knowledge Graph Embedding -- 3.4 Dynamic Network Analysis -- 3.5 Prediction -- 4 Discussion and Limitations -- 5 Conclusion and Future Work -- References -- Time Series Forecasting Using Parallel Randomized Fuzzy Cognitive Maps and Reservoir Computing -- 1 Introduction -- 2 Fuzzy Cognitive Maps -- 3 Proposed Methodology -- 3.1 Training Procedure -- 3.2 Forecasting Procedure -- 4 Computational Experiments -- 4.1 Case Studies -- 4.2 Experimental Methodology -- 5 Results -- 5.1 Parameter Setting -- 5.2 Comparison Against Baselines -- 5.3 Statistical Testing -- 6 Conclusion -- References -- Review of Offensive Language Detection on Social Media: Current Trends and Opportunities -- 1 Introduction -- 2 Methodology of the Literature Review -- 3 Background -- 3.1 Definition and Variations -- 3.2 Motivation and Application Areas -- 3.3 Shared Tasks -- 3.4 Datasets -- 3.5 Methodology and Model Evolution -- 4 Discussion and Conclusions -- 4.1 Challenges -- 4.2 Gaps in the Research -- References -- Text Mining and Sentimental Analysis to Distinguish Systems Thinkers at Various Levels: A Case Study of COVID-19 -- 1 Introduction -- 1.1 Text Mining of Twitter Data -- 2 Methodology and Data Collection -- 2.1 The Research Goal Based on the Research Gap -- 2.2 Sample of Population -- 2.3 Data Collection Procedure and Twitter Features -- 2.4 Text Mining and NLP Features Engineering and Extraction -- 3 Results and Discussion -- 3.1 Twitter Feature Engineering and Extraction -- 3.2 Sentimental Analysis and Systems Thinking Mapping -- 3.3 Cluster Analysis and Validation -- 3.4 Randomization Experiment.

4 Conclusion -- References -- ADHD Prediction in Children Through Machine Learning Algorithms -- 1 Introduction -- 2 Methodology -- 2.1 Dataset Description -- 2.2 Dataset Preprocessing -- 2.3 Evaluation Methodology -- 2.4 Experiments -- 3 Results -- 4 Analysis and Conclusions -- 5 Annexes -- References -- Commonsense Validation and Explanation for Arabic Sentences -- 1 Introduction -- 2 Related Work -- 3 Methodology -- 3.1 SemEval-2020: Task 4 -- 3.2 Dataset -- 3.3 Preprocess -- 3.4 Models -- 4 Experiments and Results -- 5 Conclusion and Future Work -- References -- Predicting Students Answers Using Data Science: An Experimental Study with Machine Learning -- 1 Introduction -- 2 Literature Review -- 3 Methodology -- 3.1 Dataset -- 3.2 Data Pre-processing -- 4 Experiments and Comparison -- 4.1 Models Tuning -- 4.2 Models Comparison -- 5 Conclusion -- References -- Arabic News Articles Classification Using Different Word Embeddings -- 1 Introduction -- 2 Related Work -- 3 Research Background -- 3.1 Word2Vec -- 3.2 GloVe -- 3.3 Fasttext -- 3.4 BERT -- 4 Methodology -- 4.1 Dataset -- 4.2 Pre-processing -- 4.3 Arabic Word Embeddings -- 4.4 Proposed Model Architecture -- 5 Experimental Results and Discussion -- 6 Conclusion -- References -- Tree Fruit Load Calculation with Image Processing Techniques -- 1 Introduction -- 2 Literature Review -- 3 Materials and Methods -- 3.1

YOLOV3 Algorithm -- 3.2 Preparing New Image Dataset -- 4 Result and Discussion -- 5 Conclusion and Future Work -- 6 References -- Prediction and Analysis of Water Quality Using Machine Learning Techniques -- 1 Introduction -- 2 Materials and Methods -- 2.1 Water Quality Dataset -- 2.2 Parameters of Water Quality Analysis -- 3 The Proposed Methodology -- 3.1 SVM -- 3.2 KNN -- 3.3 Decision Tree -- 3.4 AdaBoost Classifier -- 3.5 XG Boost -- 3.6 Feed Forward Neural Network.

4 Statistical Parameters of Classification -- 5 Comparison of Classifiers -- 6 Conclusion -- References -- Comparative Analysis of Feature Selection Techniques with Metaheuristic Grasshopper Optimization Algorithm -- 1 Introduction -- 2 Related Work -- 3 Materials and Methods -- 3.1 Methodology -- 3.2 Feature Selection Methods -- 3.3 DataSets -- 3.4 Evaluation Metrics -- 4 Result and Discussion -- 5 Conclusion -- References -- Supermarket Shopping with the Help of Deep Learning -- 1 Introduction -- 2 Methods -- 2.1 Automatic List Fulfillment -- 2.2 Shortest Root Estimation -- 2.3 Obstacle Detection -- 3 Results and Limitations -- 4 Conclusion -- References --

A Decision Support System for Detecting FIP Disease in Cats Based on Machine Learning Methods -- 1 Introduction -- 2 Literature Survey -- 2.1 Cat Diseases -- 2.2 Feline Infectious Peritonitis (FIP) -- 3

Material and Method -- 3.1 Naive Bayes Algorithm -- 3.2 Data Set -- 4 Findings and Discussion -- 5 Conclusion -- References -- A Numerical Simulation for the Ankle Foot Orthosis Using the Finite Element Technique with the Aid of an Experimental Program -- 1 Introduction -- 2 The Numerical Analysis -- 3 Experimental Work -- 3.1 Specimens Preparation for Mechanical Properties -- 4 Results and Discussion -- 4.1 The Boundary Condition for Analysis of the Orthosis -- 4.2 Von Mises Analysis -- 4.3 The Numerical Analysis of Deformation -- 4.4 Safety Factor -- 5 Conclusions -- References -- Numerical and Experimental Simulations of Damage Identification

in Carbon/Kevlar Hybrid Fiber-Reinforced Polymer Plates Using the Free Vibration Measurements -- 1 Introduction -- 2 Mathematical Model -- 3 Experimental Work -- 3.1 Manufacture of Samples -- 3.2 Specimens Tests -- 4 Numerical Analysis -- 5 Results and Discussions -- 6 Conclusions -- References.

Computer Modelling of the Gait Cycle Patterns for a Drop Foot Patient for the Composite a Polypropylene Ankle-Foot Orthoses -- 1 Introduction -- 2 Theoretical Consideration -- 2.1 The Ground Reaction Force -- 3 Experimental Work -- 3.1 Manufacturing of Ankle Foot Orthosis (AFO) -- 4 Results and Discussion -- 5 Tensile Properties Results -- 6 Fatigue Characteristics Results -- 7 The Gait Cycle and Step Table Parameters' Results and Discussion -- 8 The Ground Reaction Force -- 9 Conclusions -- References -- Arabic Sign

Language Alphabet Classification via Transfer Learning -- 1 Introduction -- 2 Related Work -- 3 Research Methodology -- 3.1 Data Description -- 3.2 Data Collection -- 3.3 Data Novelty -- 3.4 Data Pre-processing and Splitting -- 3.5 Pre-trained Models -- 4 Experiments and Results -- 5 Conclusion -- References -- Evaluation of Chemical Data by Clustering Techniques -- 1 Introduction -- 1.1 Clustering Methods -- 1.2 K-Means Algorithm -- 2 Methodology -- 3 Results and Discussion -- Appendix: Python Commands for Clustering and Performance Evaluation -- References -- Novel Quantum Key Distribution Method Based on Blockchain Technology -- 1 Introduction -- 1.1 Literature Review -- 2 Quantum Attacks -- 3 Blockchain Technology -- 3.1 Hyperledger Fabric -- 4 Proposed System -- 5 System Evaluation -- 6 Conclusion -- References -- Smart Parking System Based on Dynamic and Optimal Resource Allocation -- 1

Introduction -- 2 Smart Parking in IoT and Challenges -- 3 Literature Review on Smart Parking Systems -- 3.1 Travel Time Optimization -- 3.2 Parking Space Utilization Optimization -- 3.3 Distance Optimization -- 3.4 User Preferences-Oriented -- 4 Comparison of Approaches -- 4.1 Analysis and Discussion -- 5 Proposed Solution -- 5.1 Metamodel of Concepts for Smart Parking in IoT -- 5.2 System Architecture and Application Overview. 5.3 Genetic Algorithm for Optimization.
