

1. Record Nr.	UNINA9910754096403321
Autore	Dao Nhu-Ngoc
Titolo	Intelligence of Things : The Second International Conference on Intelligence of Things (ICIT 2023), Ho Chi Minh City, Vietnam, October 25-27, 2023, Proceedings, Volume 1
Pubbl/distr/stampa	Cham : , : Springer, , 2023 ©2023
ISBN	3-031-46573-3
Edizione	[1st ed.]
Descrizione fisica	1 online resource (452 pages)
Collana	Lecture Notes on Data Engineering and Communications Technologies Series ; ; v.187
Altri autori (Persone)	ThinhTran Ngoc NguyenNgoc Thanh
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface -- Organization -- Contents -- State-of-the-Art and Theoretical Analyses -- FPGA/AI-Powered Data Security for IoT Edge Computing Platforms: A Survey and Open Issues -- 1 Introduction -- 1.1 Related Work -- 1.2 Contributions -- 1.3 Outline -- 2 Preliminary -- 2.1 IoT Layers and Threats -- 2.2 IoT Security vs. Traditional Security -- 3 FPGA-Based Security for Edge Devices -- 4 AI-Based Security for Edge Devices -- 4.1 Processor-Based AI Approaches -- 4.2 FPGA-Based AI Approaches -- 5 FPGA/AI-Powered Security for Edge Devices: Open Issues -- 6 Conclusion -- References -- A Review in Deep Learning-Based Thyroid Cancer Detection Techniques Using Ultrasound Images -- 1 Introduction -- 2 Deep Learning-Based Thyroid Cancer Detection Using Ultrasound Image -- 2.1 Convolutional Neural Networks - CascadeMaskR-CNN -- 2.2 VGG16, VGG19, and Inception v3 -- 2.3 ThyNet -- 2.4 Generative Adversarial Networks (GANs) -- 3 Discussion -- 4 Conclusion -- References -- Bio-Inspired Clustering: An Ensemble Method for User-Based Collaborative Filtering -- 1 Introduction -- 2 Related Work -- 3 Bio-Inspired Clustering Model for User-Based Collaborative Filtering (BICCF) -- 4 Experiments and Results -- 4.1 Setting -- 4.2 Evaluation -- 5 Conclusions -- References -- Deep Reinforcement Learning-Based Sum-Rate Maximization for

Uplink Multi-user SIMO-RSMA Systems -- 1 Introduction -- 2 DRL-Based Sum-Rate Maximization for Uplink Multi-user SIMO-RSMA Framework -- 2.1 System Model and Problem Formulation -- 2.2 Proposed Deep Reinforcement Learning Framework -- 3 Evaluation -- 4 Conclusion -- References -- Multiobjective Logistics Optimization for Automated ATM Cash Replenishment Process -- 1 Introduction -- 2 Research Problem -- 3 Mathematical Model -- 3.1 Problem Statement -- 3.2 Constraints -- 3.3 Mathematical Model -- 4 Methodology -- 5 Testing and Evaluation.

6 Conclusion -- References -- Adaptive Conflict-Averse Multi-gradient Descent for Multi-objective Learning -- 1 Introduction -- 2 Conflict-Averse Methods for MOL -- 2.1 Multi-objective Learning Problems -- 2.2 Conflicting Gradients -- 2.3 Convergence and Learning Rate Issues -- 2.4 AdaCAGrad: Adaptive Conflict-Averse Multi-gradient Descent -- 3 Experiments -- 3.1 Toy Optimization Example -- 3.2 Image Classification -- 4 Conclusion -- References -- Multicriteria Portfolio Selection with Intuitionistic Fuzzy Goals as a Pseudoconvex Vector Optimization -- 1 Introduction -- 2 Multicriteria Portfolio Selection Problem -- 3 Multicriteria Portfolio Selection with Intuitionistic Fuzzy Goals -- 3.1 Intuitionistic Fuzzy Goals -- 3.2 Transformation to Deterministic Model -- 4 Computational Experiment -- 5 Conclusion -- References -- Research and Develop Solutions to Traffic Data Collection Based on Voice Techniques -- 1 Introduction -- 2 Related Work -- 3 Definition of Problem and End-to-End ASR System -- 3.1 Data Collection -- 3.2 Data Preprocessing -- 3.3 Language Modeling -- 3.4 Training End-to-End ASR -- 3.5 Decoding and Transcription -- 4 Experiment -- 4.1 Experimental Setup -- 4.2 Experimental Result -- 4.3 Analysis and Discussion -- 5 Conclusion -- References -- Using Machine Learning Algorithms to Diagnosis Melasma from Face Images -- 1 Introduction -- 2 Diagnostic Data for Melasma -- 3 Machine Learning Algorithm -- 3.1 About YOLO V8 -- 3.2 Anchor-Free Detection -- 3.3 Model for Diagnosing Melasma -- 3.4 Results of Model Evaluation -- 4 Conclusions -- References -- Reinforcement Learning for Portfolio Selection in the Vietnamese Market -- 1 Introduction -- 2 Overview -- 2.1 State-of-the-Art Reinforcement Learning -- 2.2 Related Work -- 3 Method -- 3.1 Modeling the Stock Trading Problem -- 3.2 Environment for Vietnamese Market -- 3.3 Noise Filter.

4 Experimental Evaluation -- 4.1 Data Pre-processing -- 4.2 Experimental Setup -- 4.3 Experimental Results -- 5 Conclusion -- References -- AIoT Technologies -- A Systematic CL-MLP Approach for Online Forecasting of Multiple Key Performance Indicators -- 1 Introduction -- 2 Preliminaries -- 3 Related Works -- 3.1 Time Series Forecasting Models -- 3.2 Online Learning -- 4 CL-MLP -- 4.1 Our Workflow -- 4.2 Model Construction -- 4.3 Online Learning -- 5 Experiment Results -- 5.1 Dataset -- 5.2 Our Results -- 6 Conclusion -- References -- Neutrosophic Fuzzy Data Science and Addressing Research Gaps in Geographic Data and Information Systems -- 1 Introduction -- 2 Neutrosophic Fuzzy Data Sciences -- 3 Neutrosophic Fuzzy GIS- Map -- 4 Neutrosophic Crisp Open in GIS Topology -- 5 Conclusion and Future Work -- References -- Inhibitory Control during Visual Perspective Taking Revealed by Multivariate Analysis of Event-Related Potentials -- 1 Introduction -- 2 Method -- 2.1 Participants -- 2.2 Stimulus -- 2.3 Procedure -- 2.4 Analysis -- 3 Results -- 3.1 Go vs No/Go Condition in the Self and Other Conditions Combined -- 3.2 Go vs No/Go Condition in the Self and Other Perspective Condition -- 4 Discussion -- References -- A Novel Custom Deep Learning Network Combining 1D-Convolution and LSTM

for Rapid Wine Quality Detection in Small and Average-Scale Applications -- 1 Introduction -- 2 Material and Methodology -- 2.1 Data Description -- 2.2 Sampling Procedure -- 2.3 Computation Algorithm -- 3 Computation Algorithm -- 4 Validation Strategy -- 5 Result and Discussion -- 6 Conclusion -- References -- IoT-Enabled Wearable Smart Glass for Monitoring Intraoperative Anesthesia Patients -- 1 Introduction -- 1.1 Surgical Patient Monitoring System -- 1.2 Literature Review -- 2 Experimental Setup and Procedure -- 3 Results and Discussions -- 4 Conclusion -- References.

Traffic Density Estimation at Intersections via Image-Based Object Reference Method -- 1 Introduction -- 2 Related Work -- 3 Problem Definition and Proposed Solutions -- 3.1 Problem Definition -- 3.2 Proposed Solutions -- 4 Experiment Setup and Result -- 4.1 Overall System Architecture -- 4.2 Automatic Access -- 4.3 Data Setup -- 4.4 Error Rate Calculation -- 4.5 Result and Evaluation -- 5 Conclusion and Future Work -- References -- Improving Automatic Speech Recognition via Joint Training with Speech Enhancement as Multi-task Learning -- 1 Introduction -- 2 Related Work -- 3 ASR-SE: A MTL Approach -- 4 Experiments and Results -- 5 Conclusion -- References -- Solving Feature Selection Problem by Quantum Optimization Algorithm -- 1 Introduction -- 2 Feature Selection Model -- 3 Solving Feature Selection Problems by CVaR-QAOA -- 3.1 Quantum Approximate Optimization Algorithm -- 3.2 CVaR Optimization for QAOA -- 3.3 Apply CVaR-QAOA to Feature Selection Problem -- 4 Numerical Simulation -- 5 Conclusion and Feature Work -- References -- A Methodology of Extraction DC Model for a 65 nm Floating-Gate Transistor -- 1 Introduction -- 2 Floating-Gate Transistor Concepts -- 2.1 Device Structure -- 2.2 DC Operation -- 3 Methodology in Model Extraction -- 4 Result -- 4.1 Drain Current Versus Control Gate Voltage at Initial Condition -- 4.2 Drain Current Versus Control Gate Voltage When VSB Varies -- 4.3 Drain Current Versus Control Gate Voltage When VD Varies -- 4.4 Drain Current Versus Drain Voltage When VCG Varies -- 5 Conclusion -- References -- imMeta: An Incremental Sub-graph Merging for Feature Extraction in Metagenomic Binning -- 1 Introduction -- 2 Methods -- 2.1 Fundamentals and Notations -- 2.2 Algorithms -- 3 Experimental Results -- 3.1 Dataset -- 3.2 Performance Metrics -- 3.3 Results -- 3.4 Parameter Evaluation -- 4 Conclusion -- References.

Virtual Sensor to Impute Missing Data Using Data Correlation and GAN-Based Model -- 1 Introduction -- 2 Related Work -- 3 Problem Description -- 4 Virtual Sensor Components -- 4.1 Generator -- 4.2 Discriminator -- 4.3 Data Correlation Arrangement -- 4.4 Hint -- 4.5 Objective -- 5 Algorithm -- 6 Experiments -- 6.1 Performance of the Proposed Virtual Sensor -- 6.2 Virtual Sensor Prediction Accuracy -- 7 Conclusions and Future Work -- References -- An Edge AI-Based Vehicle Tracking Solution for Smart Parking Systems -- 1 Introduction -- 2 Related Work -- 3 Proposed Method -- 4 Experimental Results -- 4.1 Training Phase -- 4.2 Evaluation -- 5 Conclusion -- References -- Low-Light Image Enhancement Using Quaternion CNN -- 1 Introduction -- 2 Background -- 2.1 Quaternion Algebra -- 2.2 Quaternion Convolutional Neural Network -- 2.3 CNN Approaches for Image Enhancements -- 3 Proposed Quaternion Attention Unet -- 3.1 Quaternion ResUnet -- 3.2 Quaternion Attention Module -- 3.3 The proposed Quaternion Attention Unet model -- 4 Experimental Results -- 4.1 Datasets -- 4.2 Training of Quaternion CNN -- 4.3 Performance Evaluations -- 5 Conclusion and Future Work -- References -- Leverage Deep Learning Methods for Vehicle Trajectory Prediction in Chaotic Traffic -- 1 Introduction -- 1.1 Vehicle Trajectory Prediction --

1.2 The Challenges in Vietnamese Traffic -- 2 Related Work -- 3
Methods -- 3.1 Vehicle Detection -- 3.2 Vehicle Tracking -- 3.3
Vehicle Trajectory Prediction -- 4 Experiment -- 4.1 Experimental
Setup and Implementation -- 4.2 Metrics -- 4.3 Experimental Result --
5 Conclusion -- References -- AIoT System Architectures -- Wireless
Sensor Network to Collect and Forecast Environment Parameters Using
LSTM -- 1 Introduction -- 2 Related Work -- 3 Proposing System --
3.1 System Overview -- 3.2 System Details -- 4 Simulation and Result
-- 4.1 Product.
4.2 Training Result.
