



12th World Conference (3z (B)Intelligent System for Industrial Automation(3y(B (WCIS-2022) : Volume 2 /

Aliev, R. A.,
editor

Monografía

This book presents the proceedings of the 12th World Conference "Intelligent systems for industrial automation", WCIS-2022 held in Tashkent, Uzbekistan, on November 25-26, 2022. It includes contributions from diverse areas of intelligent industrial systems design, intelligent information systems, decision making under imperfect information and others. The topics of the papers include hybrid control systems, pattern recognition, industry 4.0, information security, neural computing, fuzzy computation, decision making and support systems, and others

<https://rebiunoda.pro.baratznet.cloud:28443/OpacDiscovery/public/catalog/detail/b2FpOmNlbGVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzY4NTI2NzM>

Título: 12th World Conference (3z(B)Intelligent System for Industrial Automation(3y(B (WCIS-2022) Volume 2
edited by R. A. Aliev, Nodirbek Rustambekovich Yusupbekov, Janusz Kacprzyk, Witold Pedrycz, M. B. Babanli,
Fahreddin M. Sadikoglu, S. M. Turabdjanov

Edición: 1st ed. 2024

Editorial: Cham Springer Nature Switzerland Imprint: Springer 2024

Descripción física: 1 online resource (388 pages)

Mención de serie: Lecture Notes in Networks and Systems 2367-3389 912

Bibliografía: Includes bibliographical references and index

Contenido: Intro -- Preface -- Organization -- Contents -- Implementation of the Thematic Text Analysis Algorithm Using Machine Learning -- 1 Introduction -- 2 Methods -- 3 Results -- 4 Discussion -- 5 Conclusion -- References -- Development of a Mathematical Model of Sequential Arrangement of a Group of Wagons Along Station Tracks -- 1 Introduction -- 2 Materials and Methods -- 3 Results and Discussion -- 4 Conclusion -- References -- A Bert Model with Deep Learning Approach in Natural Language Processing (NLP) -- 1 Introduction -- 2 Methodology -- 2.1 Datasets -- 2.2 Preprocessing -- 2.3 Feature Extraction -- 2.4 Classifiers -- 3 Results -- 4 Discussions -- 5 Conclusions -- References -- Application of Outline Methods for Image Processing -- 1 Introduction -- 2 Emphasizing the Contours of Images -- 3 Conclusion -- References -- Structure of a Pragmatically-Oriented Model of an Agglutinative Natural Language Exemplified with Tatar -- 1 Introduction -- 2 Decentralized NL Model -- 3

Semiotic Models of Lexical and Grammatical Means of NLs -- 4 Software-Algorithmic Content of NL Modelling Systems -- 5 On Potential of Tatar Language Grammar for Developing Intelligent Systems -- 6 Conclusion and Plans for Future Research -- References -- Application of a Piecewise Linear Decision Tree Algorithm to Detect Phishing URLs in IoT Devices -- 1 Introduction -- 2 Basic Concepts and Methods for Phishing Attacks -- 2.1 Techniques in Phishing Attacks -- 2.2 Methods and Algorithms for Classifying Phishing URLs -- 3 Selection of Attributes for Detecting Phishing Attacks -- 4 Computational Experiments -- 5 Conclusion -- References -- The Potential of Machine Learning for Tackling Flood Disaster in Monrovia -- 1 Introduction -- 2 Methodology -- 2.1 Study Area -- 2.2 Data Type and Source -- 2.3 Cascade Forward Neural Network (CFNN) -- 2.4 Training and Testing 2.5 Model Accuracy Evaluation -- 2.6 Root Mean Square Error (RMSE) -- 2.7 Input and Output Variables -- 3 Results -- 3.1 Cascade Feedforward Neuron Networks with All Five Inputs -- 3.2 Elman Neuron Network with All Five Inputs -- 3.3 Discussion -- 4 Conclusion -- References -- Wireless Charging Technology or Wireless Transmission of Electrical Energy: Theoretical and Practical Importance -- 1 Introduction -- 2 Research Methods -- 3 Research Results and Discussion -- 4 Conclusion -- References -- Development of an Indicator of Social Success of Social Network Users to Improve Intelligent Management Systems -- 1 Introduction -- 2 Data -- 3 Methods -- 3.1 Constructing Social Graphs to Calculate Metrics of Network Users -- 3.2 Normalization of User Metrics Data -- 3.3 Correlation Analysis -- 4 Results -- 5 Discussion -- 6 Conclusion -- References -- Development of an Educational Intelligent System to Detect Particles Suitable for 3D-Printing -- 1 Introduction -- 2 Research Methods -- 3 Study -- 4 Implementation -- 5 Code Listing -- 6 Conclusion -- References -- Modeling and Control of Decentralized Microgrid Based on Renewable Energy and Electric Vehicle Charging Station -- 1 Introduction -- 2 Methods -- 2.1 Mathematic Modeling -- 3 Results and Discussion -- 4 Conclusion -- References -- Intelligent Glass Production Process Control System -- 1 Introduction -- 2 Method for Improved Control of the Glass Melting Process -- 3 Application of Intelligent Control System in Glass Melting Process Control -- 4 Conclusion -- References -- Digital OntoMath Ecosystem Tools for Managing and Developing Mathematical Knowledge -- 1 Introduction -- 2 Composition of the OntoMath Ecosystem -- 3 Semantic Services of the OntoMath Digital Ecosystem -- 4 Conclusion -- References -- Development and Optimization of Digital Twin Model for the Deethanizer Distillation Unit 1 Introduction -- 2 Description of Scientific-Technical Solution -- 3 Research Results -- 4 Conclusion -- References -- Intelligent Processing Time Characteristics of the Flow of the Impulse Component of the Train Shunt Resistance -- 1 Introduction -- 2 Material and Methods -- 3 Results and Discussions -- 4 Conclusion -- References -- Algorithm of Generating One-Time Passwords for Two-Factor Authentication of Users -- 1 Introduction -- 2 Main Part -- 2.1 The Proposed Two-Factor Authentication Algorithm -- 3 Conclusion -- References -- Modified Base Vector Method and Algorithm for Detecting Spam Messages -- 1 Introduction -- 2 Main Part -- 3 Conclusion -- References -- Prediction of Mechanical Power of New Design of Savonius Wind Turbine Using Various Empirical Models -- 1 Introduction -- 2 Material and Methods -- 2.1 Experimental Setup -- 2.2 Machine Learning Models (MLMs) -- 2.3 ARIMA Model -- 2.4 MLR Model -- 3 Results and Discussion -- 3.1 Estimating the Mechanical Power Using Various Empirical Models -- 3.2 Evaluation of the Model's Performance -- 4 Conclusions -- References -- Account Transport Demand When Modeling the Matrix of Inter-District Transport Connection -- 1 Introduction -- 2 Method -- 3 Results -- 4 Discussion -- 5 Conclusion -- References -- An Effective Probabilistic Model for Clutter Signal Representation -- 1 Introduction -- 2 Proposed Statistical Model -- 2.1 Maximum Likelihood Estimation -- 3 Kolmogorov-Smirnov test (K-S) -- 3.1 Data Collection -- 4 Results -- 5 Conclusion -- References -- Security Management Methods for Infocommunication Systems -- 1 Introduction -- 2 Method -- 3 Results -- 4 Conclusion -- References -- "Turkic Morpheme": From the Portal to the Linguistic Platform -- 1 Introduction -- 2 Linguistic Platforms Review -- 3 "Turkic Morpheme" Platform Description -- 4 Conclusion -- References Verification of the Ontology of Professional Mathematics OntoMathPRO -- 1 Introduction -- 2 OntoMathPRO Architecture -- 3 Verification and Correction of the OntoMathPRO Ontology -- 3.1 Main Found Issues -- 3.2 Different Conceptualizations -- 4 Conclusion -- References -- Control of Distorted Image Points Based on the Mechanism of Identification of a Micro-object with a Cosine Transform -- 1 Introduction -- 2 Main Part -- 2.1 Methods for Optimizing the Identification of Micro-objects Based on the Mechanisms for Using Redundant Structural Components of the Image -- 2.2 The Results of Identification of Micro-objects Based on the Mechanisms of Using Redundant Structural Components -- 3 The Discussion of the Results -- 3.1 Applications of Modified Algorithms for the Identification of Images of Micro-objects -- 4 Conclusion -- References -- Magnetolectric Actuating Device for Providing Delicate Capture of the Object of Manipulation in Intelligent Robots -- 1 Introduction -- 2 Main Part -- 3 Calculation of the Permissible Current Density in the Armature Circuit -- 4 Results of the Study of the Thrust Force of a Linear Magnetolectric Direct Current Element -- 5 Calculation of the Diameter of the Wire Wound on the Anchor

Core -- 6 Conclusions -- References -- CNN Based Deep Learning for Vehicle Re-identification -- 1 Introduction -- 2 Deep Learning for Vehicle Identification -- 3 Structure of Vehicle Re-identification System -- 4 Simulations -- 5 Conclusion -- References -- Algorithm for Provision of Distributed Cloud Data Center Resources Based on Central Management System -- 1 Introduction -- 2 Formulation of the Problem -- 3 Problem Solving -- 4 Results and Analysis -- 5 Conclusion -- References -- Design an Efficient Electrochemical System for Treatment of Oil-Polluted Waters -- 1 Introduction -- 2 Methodology -- 3 Experimental Results and Discussions -- 4 Conclusion -- References -- Honeywell PROFIT BLENDING AND MOVEMENT Commissioning Experience at Offshore Terminal -- 1 Introduction -- 2 Problem Statement -- 3 PROFIT BLENDING AND MOVEMENT Solution -- 3.1 Profit Blending Suite Software Package -- 3.2 Profit Movement Suite software complex -- 4 Conclusion -- References -- Structural-Mode Graphs of Electromagnetic and Mechatronic Modules of Intelligent Robots -- 1 Introduction -- 2 Research Methodology -- 3 Analysis and Results -- 4 Conclusion -- References -- Assessment of Severity Degree of Lost Circulation During Well Drilling Based on Integrated Geological and Technological Information Using Fuzzy Cluster Analysis -- 1 Introduction -- 2 Research Methods -- 3 Research Results -- 4 Discussion and Analysis of the Obtained Results -- 5 Conclusion -- References -- Platform Enablers for Digital Transformation: Case For Smart Campus Service Architecture -- 1 Introduction -- 2 Motivation -- 3 Methodology -- 3.1 Smart campus platform enablers for digital transformation and modeling aspects -- 4 Conclusion -- References -- Features of Mathematical Modeling in Urban Planning and Transport Planning -- 1 Introduction -- 2 The Main Part -- 3 Conclusion -- References -- The Choice of a Generalized Criterion for the Efficiency of an Automated Electric Drive of a Railway Rolling Stock -- 1 Introduction -- 2 A Method for Solving Optimization Issues -- 3 Conclusions -- References -- Determination of Valve Seal Construction Angle Using Fuzzy Logic -- 1 Introduction -- 2 Materials and Methods -- 3 Conclusions -- References -- A Comparison of Lightweight Cryptographic Algorithms -- 1 Introduction -- 2 Lightweight Cryptography -- 2.1 Symmetric Cryptography -- 2.2 Public Key Cryptography -- 2.3 Use of Lightweight Cryptography -- 3 Lightweight Ciphers Evaluation -- 3.1 Evaluation of Lightweight Ciphers in Terms of Cost

ISBN: 3-031-53488-3

Materia: Computational intelligence Industrial engineering Production engineering Computational Intelligence Industrial and Production Engineering

Autores: Aliev, R. A., editor

Enlace a formato físico adicional: 3-031-53487-5

Punto acceso adicional serie-Título: Lecture Notes in Networks and Systems 2367-3389 912

Baratz Innovación Documental

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- informa@baratz.es