

# **2023 3rd International Conference on Electrical, Computer, Communications and Mechatronics Engineering (ICECCME 2023)**

**Tenerife, Canary Islands, Spain  
19-21 July 2023**

**Pages 1-691**



**IEEE Catalog Number: CFP23AB2-POD  
ISBN: 979-8-3503-2298-9**

**Copyright © 2023 by the Institute of Electrical and Electronics Engineers, Inc.  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

**\*\*\* *This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP23AB2-POD
ISBN (Print-On-Demand):	979-8-3503-2298-9
ISBN (Online):	979-8-3503-2297-2

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

## TABLE OF CONTENTS

Detection of Facial Paralysis in Human Beings Using Machine Learning Clustering .....	1
<i>Muruganantham Ponnusamy</i>	
Adaptive Engine Utilizes Least-Mean Square and Eye-Opening Monitor for Multi-Gb/s Serial Links.....	7
<i>Alaa R. Altaee</i>	
The First-Digit Law Application in Digital Forensics in Crystal Forgery Research .....	11
<i>Diana Crisan, Dan Ioan Gota</i>	
Comparing Deep Learning and Genetic Algorithms Techniques for Age and Gender Classification .....	18
<i>Alexandru Ciobotaru, Dan Ioan Gota, Adela Puscasiu, Ovidiu Stan, Alexandra Fanca,     Claudiu Domuta, Honoriu Valean, Liviu Miclea</i>	
Estimating the Maximum Power of a Concentrator Photovoltaic Module Through Random Forest .....	24
<i>Claudia N. Sánchez, Pedro M. Rodrigo</i>	
Lexicon Approach for Risk Analysis in Emerging Technologies .....	29
<i>Mohamed Elhoseny, Abdelaziz Darwiesh, A. H. El-Baz</i>	
An Interdisciplinary Perspective on Mis/Disinformation Control.....	35
<i>Kevin Matthe Caramancion</i>	
Simulation and Optimization of a Solar Cell Based on the Double Perovskite Absorber Material $\text{Cs}_2\text{BiAgI}_6$ .....	41
<i>Hayat Arbouz</i>	
An Approach to Design Railway Specific Features for Critical Voice Communications .....	47
<i>Ivaylo Atanasov, Vasil Vatakov, Evelina Pencheva</i>	
At What Price Can Zero Emissions Be Achieved in Electric Passenger Vehicles .....	53
<i>Jan Furch, Zdenek Krobot</i>	
Modular Drivetrain Active Damping Based on Dynamic Average Consensus Algorithm in Continuous Motion.....	58
<i>Théo Tuerlinckx, Niels Divens, Koen Laurijssen, Bernhard Westerhof</i>	
Analysis of Housing Market to Predict Home Price.....	68
<i>Md Liakat Ali, David Magrini, Michael Cangelosi, David Ribeiro</i>	
Tribodiagnosis of Engines of Special Vehicles.....	74
<i>Jiri Stodola, Petr Stodola, Jan Furch</i>	
Energy-Efficient Thermal Comfort Optimization Game in Office Building Networks.....	79
<i>Evangelos D. Spyrou, Vassilios Kappatos</i>	
Comparative Explainable Machine Learning to Evaluate Bank Marketing Success.....	84
<i>Chinmay Vashi, Aakash Shanbhag</i>	
Summarizing Clustering Results Using Sentence Prototype Based Language Models.....	89
<i>Arpit Khare, Dheeraj Kumar</i>	

Speed Estimation of Vehicles Using Monocular Cameras.....	95
<i>Robert Kaps, Matthias Kuba</i>	
An Innovative Optimization Approach for Energy Management of a Microgrid System .....	101
<i>Yahia Amoura, Ana I. Pereira, José Lima, Ângela Ferreira, Fouad Boukli-Hacene, Santiago Torres</i>	
Energy Estimation of Sleep Monitoring Algorithms for Application Specific Integrated Circuit Implementation.....	110
<i>Reza Ranjandish, Sajjad Gholami, Chakaveh Ahmadizadeh</i>	
Arrival and Service Curve Measurement-Based Estimation Methods to Analyze and Design Soft Real-Time Streaming Systems with Network Calculus.....	115
<i>Christoph Funda, Pablo Marín García, Reinhard German, Kai-Steffen Hielscher</i>	
An Overview of Integration of the Virtualization of Network Functions in the Context of Information Centric Networks.....	123
<i>Antonio Cortés Castillo</i>	
Distributed Routing Scheme for IP-Based Elastic Optical Networks (EONs) .....	130
<i>Wajdi Halabi</i>	
Exploring the Performance of XGBOOST and Artificial Neural Network in Personal Credit Default Prediction: An Empirical Study.....	134
<i>Zhu Xueping, Suzani Mohamad Samuri, Muhamad Hariz Muhamad Adnan</i>	
Real-Time Estimation of the Lithium-Ion Battery Impedance in Electric Vehicles Utilizing the Electrochemical Impedance Spectroscopy Technique.....	140
<i>Nikolaos Jabbour, Evangelos Tsioumas, Dimitrios Papagiannis, Markos Koseoglou, Christos Mademlis</i>	
Detection of Failures in the Operation of Shale Shaker Machines for the Separation of Solids .....	146
<i>Hernán Paz Penagos, Manuel Eduardo Gantiva, Johnny Alexander Arévalo López</i>	
A Writer-Dependent Approach for Offline Signature Verification Using Feature Learning and One-Class Support Vector Machine .....	152
<i>Osman Tanko, Isaac Baffour Senkyire, Kelvin Kwao, Simon Hilary Ayinedenaba Aluze-Ele, Edward Kwadwo Boahen, Samuel Akwasi Frimpong</i>	
Comparative Study Between the Triple-Active-Bridge and the Interleaved Multiport Bidirectional DC-DC Converter for a 10KW PV Microgrid System.....	158
<i>Rayan Restom, Wafaa Salloum, Hussein Termous, Abbas Fardoun</i>	
Viseme Embeddings for Commonly Confused Words in Lip-Reading .....	164
<i>Souheil Fenghour, Daqing Chen, Kun Guo, Perry Xiao</i>	
5G-OPS: Optimizer of Private 5G Slices .....	169
<i>Rasha Hasan, Ahmed Abdelaziz</i>	
Model for Forecasting and Planning Solar Energy Production Using an Artificial Neural Network .....	175
<i>Ekaterina Gospodinova, Ivan Torlakov, Ivelina Metodieva</i>	
Network Model for the Classification of Development Methodologies for Embedded Systems .....	181
<i>Kristina Blaškovic, Alen Jakupovic, Sanja Candrllic, Martina Ašenbrener Katic, Patrizia Pošcic</i>	

Wildfire Spread Prediction Using Attention Mechanisms in U-NET .....	191
<i>Kamen Shah, Maria Pantoja</i>	
Associating Obesity to Chronic Conditions Through Machine Learning Techniques: A Mexican Case .....	197
<i>Fernando Mora-Brito, Richard De Jesús Gil Herrera</i>	
A Surgical Dataset from the Da Vinci Research Kit for Task Automation and Recognition .....	204
<i>Irene Rivas-Blanco, Carlos J. Pérez Del-Pulgar, Andrea Mariani, Giuseppe Tortora, Antonio J. Reina</i>	
Independent PI Design for PV System Voltage Control Using the Effective Transfer Function Method .....	210
<i>Giuseppe Fusco, Mario Russo</i>	
Path Planning Based on Rapidly-Exploration Random Tree (RRT).....	216
<i>Ibrahim A. Hassan, Issa A. Abed, Walid A. Al-Hussaibi</i>	
Employee Attrition Prediction Using Machine Learning .....	222
<i>Sanidhya Barara, Umang Soni</i>	
Investigation of Vibrations Energy Harvesting from Vehicle Suspension System and Modeling Using Electrical Equivalent Circuits .....	231
<i>Abdelmajid Bybi, Ayoub Benhiba, Ilyas Lahlouh, Adil Ammar, Aziz Et-Tahir, Hilal Drissi</i>	
Low Power Consumption in Capacitive Touch Screen Panel by Changing Scanning Rate Using Equation and AI Based Proposal .....	237
<i>Zairin Aslam, Vikas Mittal, Nimit Manglick</i>	
An Alternative to FaaS Cold Start Latency of Low Request Frequency Applications .....	242
<i>Paulo Otavio Ferreira Dos Santos, Humberto Jorge De Moura Costa, Valderi R. Q. Leithardt, Paulo Jorge Silveira Ferreira</i>	
Conceptual Architecture for the Provision and Aggregation of Universal Digital Twins Within Containerization Environments .....	248
<i>Tim Häufermann, Joel Lehmann, Alessa Rache, Julian Reichwald</i>	
Self-Supervised Learning for Organs at Risk and Tumor Segmentation with Uncertainty Quantification.....	254
<i>Ilkin Isler, Debesh Jha, Curtis Lisle, Justin Rineer, Patrick Kelly, Bulent Aydogan, Mohamed Abazeed, Damla Turgut, Ulas Bagci</i>	
Domain-Driven Design as Model Contract in Full-Stack Development .....	260
<i>Christoph Praschl, Sophie Bauernfeind, Christian Leitner, Gerald A. Zwettler</i>	
Optimisation of a Delta Robot Using Machine Learning .....	266
<i>Lukas Haas, Roland Wölflé, Matthias Kuba, Thomas Zeh</i>	
Effect of Multiple Connection Modes of Capacitors on the Response of Vibration Energy Harvester.....	272
<i>Rui Zhong, Chung Ket Thein, Dunant Halim, John Xu</i>	
Practice of Technical Debt Management with TETRA™ in Terms of Open-Source Project Assessment .....	278
<i>Boris Kontsevoi, Sergey Terekhov, Alexey Velesnitsky</i>	
Overflow Design System to Decrease Gas Defects Considering the Direction of Molten Metal Flow .....	287
<i>Daichi Minamide, Ken'Ichi Yano, Masahiro Sano, Takahiro Aoki</i>	

Network Coverage Improvement During Natural Disaster Using Self-Organizing Maps .....	293
<i>Nam Hoang, Prathyusha Devabhaktini, Raj Mani Shukla, Suman Bhunia</i>	
A Rule Based Data Cleansing Pipeline for Automated Data Import in the Context of Social Clubs .....	299
<i>Andreas Pointner, Martin Harrer</i>	
Battery-Friendly Charging Process Scheduling of Electric Vehicle Fleets at Company Sites.....	305
<i>Nicki Bodenschatz, Markus Eider, Daniel Kratschmer, Andreas Berl, Armin Zimmermann</i>	
Using an Event Hierarchy for Improved Process Mining of Website User Behaviour.....	313
<i>Sandler Simone, Krauss Oliver, Mayrhuber Elisabeth, Stöckl Andreas</i>	
Detection of Vehicle Density Based on YoloV7 with Images from Cusco, Peru.....	318
<i>Yonatan Mamani-Coaqueira, Susan L. Palacios Salcedo, Yudi Guzman-Monteza, Edwin Alvarez</i>	
The Role of Facilitators in Online Discussion in Relation to Communication Apprehension and Attitudes Toward Nonverbal Communication.....	324
<i>Soichiro Shimada, Eizo Hideshima</i>	
An Approach to Control of Wound Rotor Induction Motors in Stepping Mode of Operation .....	330
<i>Mikho Mikhov, Marin Zhilevski</i>	
Interoception as Operator-Centered Proxy for Embodiment of Tele-Robotic Systems: Theoretical-Practical Remarks.....	335
<i>Michela Balconi, Davide Crivelli</i>	
OCR Quality: Key to Enhanced Data Mining .....	340
<i>Anssi Jääskeläinen, Mikko Lipsanen, Atte Föhr, Tuomo Räisänen</i>	
Selection of FDI-Tolerant Time-Sensitive Networking (TSN)-Based Architecture for Preserving Determinism of Safety-Critical Applications .....	346
<i>Voica Gavrilut, Christian E. L. Madsen, Michael Stübert Berger</i>	
Improved Control of DC-DC Converter for PV Array and Battery Hybrid System Based on Sine Cosine Algorithm and RL-TD3 Agent.....	354
<i>Marcel Nicola, Claudiu-Ionel Nicola</i>	
Improvement Performances of Sensorless Control for PMSM Based on FOC Strategy Using MRAS Observer, Ant Colony Optimization, and RLTD3 Agent.....	360
<i>Claudiu-Ionel Nicola, Marcel Nicola</i>	
Optimal Design of Concentric Electrodes for Functional Electrical Stimulation in Multilayered Isotropic Tissues .....	366
<i>Mary Grace Cassar, Cristiana Sebu, Michael Pidcock, Brian Andrews, Shubham Chandak</i>	
FPGA Processing of Decision Tree Ensembles Stored in External DRAM .....	377
<i>Jakob Winkler, Michael Lunglmayr</i>	
Portable Smart Non Invasive System for the Detection of Glucose in Human Blood.....	383
<i>Nasser Al Jarallah, Jamal Smida, Sara Al Jarallah, Anandh Sam Chandra Bose, Amor Smida, Ghaith Koushaji</i>	
Classification of Fluid Filled Abnormalities in Retinal Optical Coherence Tomography Images Using Chicken Swarm Optimized Deep Learning Classifier .....	388
<i>Jamel Smida, Anandh Sam Chandra Bose, Nasser Al Jarallah, Amor Smida, Ghaith Koushaji</i>	

Simulation of the Performance of a Solar Distillation System as an Alternative for Brine Treatment .....	396
<i>Brayan Eduardo Tarazona-Romeroline, Alvaro Campos-Celador, Yecid Alfonso Muñoz-Maldonado</i>	
Triple Parallel LSTM Networks for Classifying the Gait Disorders Using Kinect Camera and Robot Platform During the Clinical Examination.....	403
<i>Mohsen Shayestegan, Tomas Zalabsky, Jan Mareš</i>	
Comparison of the Power Requirement of a Hybrid Vehicle as a Function of Speed Profile.....	409
<i>Miguel Arlenzo Duran Sarmiento, Luis Alfonso Del Portillo Valdés, Carlos Borrás Pinilla</i>	
Analysis of the Energetic Potential in a Staircase with Hydraulic Circuit: An Experimental Energy Tests.....	415
<i>Miguel Arlenzo Duran Sarmiento, Luis Alfonso Del Portillo Valdés, Carlos Borrás Pinilla</i>	
Automated Evaluation of Sport and Leisure Accident Reports Using Natural Language Processing.....	420
<i>Anna Maschek, Andreas Stöckl</i>	
Wildfire Monitoring in Portugal Using Sentinel-2 .....	425
<i>Diogo Domingos, Miguel Gama, Paulo Marques</i>	
An Ontological Approach for Understanding Animal Diseases and Their Symptoms .....	429
<i>Viraj Lakshitha Bandara, Prasan Yapa</i>	
Big Data Framework to Detect and Mitigate Distributed Denial of Service(DDoS) Attacks in Software-Defined Networks (SDN) .....	435
<i>Amirreza Fazely Hamedani, Muzzamil Aziz, Philipp Wieder, Ramin Yahyapour</i>	
Machine Learning-Based Prognosis for Valves in Carbon Capture Applications .....	441
<i>Marco Bindi, Libero Paolucci, Carlos Iturrino-García, Gianluca Losi, Antonio Luchetta, Francesco Grasso, Gabriele Maria Lozito, Simone Gabbirelli</i>	
Facial Expression Recognition on Wild and Multi-Label Faces with Deep Learning.....	447
<i>Hasan Han, Elena Battini Sönmez</i>	
A Systematic Approach Towards the Definition of the Terms Edge Case and Corner Case for Automated Driving.....	451
<i>Lennart Vater, Marcel Sonntag, Johannes Hiller, Philipp Schaudt, Lutz Eckstein</i>	
Actor-Critic Methods in Stock Trading : A Comparative Study .....	457
<i>Firdaus Khemlichi, Houda Elyousfi Elfilali, Hiba Chougrad, Safae Elhaj Ben Ali, Youness Idrissi Khamlichi</i>	
Brown Marmorated Stink Bug Detection Using Multiple Neural Networks.....	462
<i>Andrei Vicol, Loretta Ichim, Dan Popescu</i>	
Challenges and Lessons Learned During Private 5G Open RAN Deployments .....	468
<i>Xhafer Krasniqi, Edmond Hajrizi, Besnik Qehaja</i>	
Analysis of EVM and ACPR on 5G NR Waveform in the Presence of RF Impairments.....	474
<i>Ahmed Waheed, Somayeh Mohammady</i>	
From Data to Decisions: A Method for Evaluating the Strategic Value of Digital Twins.....	480
<i>Fabio Oettl, Tobias Tischer, Tobias Wittmeir, Johannes Schilp</i>	

Clinical Grade Prediction of Therapeutic Dosage for Electroconvulsive Therapy (ECT) Based on Patient's Pre-Ictal EEG Using Fuzzy Causal Transformers.....	485
<i>Cyrus Kalantarpour, Usef Faghihi, Elouanes Khelifi, François-Xavier Roucaut</i>	
Chatbot for Disease Prediction Using Classification Based Machine Learning Algorithms.....	491
<i>Ritika Chadha, Aayush Sharma</i>	
Cyberspace Communication in the SME Business Context: Exploring Ways to Improve Technological Readiness and Capability of Thai SMEs.....	496
<i>Sitsada Sartamorn, Hiroko Oe</i>	
Fuzzy Associational Rules and Reasoning Logic in Computer Vision Models.....	502
<i>Elouanes Khelifi, Usef Faghihi, Thiermo Aliou Ba, Cyrus Kalantarpour, François Meunier</i>	
Determination of Geometry Parameters to Geostationary Communication Satellite, Its Comparative Analysis for Mongolia.....	509
<i>Otgonbaatar Yura, Kwangcheol Shin, Buyankhishig Zundui</i>	
Evaluating Surface Area Effects on Flapping Wing Aerodynamics with Analytical and Experimental Approaches.....	515
<i>Muhammed Muhsin Cosdu, Yavuz Selim Bayram, Enes Tamdogan</i>	
Modeling and Simulation of Energy Management for a Hybrid Electric Two-Wheeler .....	521
<i>Divyakumar Bhavsar, Pranay Nirapure, Kanupriya M, Mayank Mittal</i>	
The Impact of Missing Data Handling Techniques on the Accuracy of COVID-19 Mortality Prediction .....	527
<i>Daksh Nikunj Bardoliwala, Mehul V. Desai, Aakash Dhananjay Shanbhag</i>	
Comparative Analysis of YOLOv8 and Mack-RCNN for People Counting on Fish-Eye Images.....	533
<i>Jevgenijs Telicko, Andris Jakovics</i>	
Hybrid K-Mean PSO Clustering Algorithm for Energy-Efficient of Object Tracking in WSNs.....	539
<i>Sahar Hamad Ahmed, Ahmed Noori Rashid</i>	
Bifacial PV Performance Evaluation with Reference to the Solar Spectrum and Broadband Irradiance.....	545
<i>Mohini Takooparsadh, Dr Arnold J. Rix</i>	
Cathodic Protection Remote Monitoring Via LoRaWAN Technology of Water Pipelines.....	552
<i>Mongkol Wongkhan, Jeerapa Thitasino, Pummate Chaitragul</i>	
Exergetic Evaluation of Hybrid Combined Cycle (HCC) of Direct Waste Incineration (MSWI) with Electricity Generation.....	558
<i>Nilson Castillo, Brayan Tarazona, Javier Ascanio, Camilo Sandoval, Dario Rincon</i>	
Classification Based on Association Rules: Complexity and Interestingness Guided Algorithm .....	564
<i>Carlos Molina, Belén Prados-Suárez</i>	
Project Management Software Tools – One Step Closer to UN Sustainable Development Goals .....	568
<i>Petar Stanimirovic, Tea Borozan, Milan Radovicic, Andjelija Djordjevic Tomic</i>	
A Deep Learning-Based Approach for Detecting Bangla Spam Emails.....	573
<i>Riyadil Zannat, Afnan Alauddin Mumu, Abedur Rahman Khan, Tasneem Mubashshira, Sharifa Rania Mahmud</i>	

Effects of Phase Shifted Three Phase Winding on the Performance of a Large Scale Wound Rotor Synchronous Machine .....	579
<i>Nosimilo N Siphepho, Karen S Garner, Lucky Dube</i>	
Effect of Strain Wave Gear Teeth Wear on the Behaviour of an Electro-Mechanical Flight Control Actuator for eVTOL Aircrafts .....	584
<i>Roberto Guida, Antonio Carlo Bertolino, Andrea De Martin, Andrea Raviola, Massimo Sorli</i>	
A Novel Approach for Reconfiguring Large-Scale Power Distribution Systems Using Genetic Algorithms and DIgSILENT Power Factory .....	590
<i>Oscar Gómez Carmona, Kenneth Marín Silva, Víctor M. Vélez Marín, Diego A. Galvis Neira, Cristian C. Marín Cano</i>	
A Low Weight Electro-Hydraulic Active Damper to Control Main Rotor Vibrations on Helicopters.....	596
<i>Antonio Carlo Bertolino, Stefano Smorto, Paolo Porro, Massimo Sorli</i>	
Balanced Design of Three-Phase Coupled Inductor .....	602
<i>Abdulrhman Alshaabani</i>	
Towards a Health Recommender Tool Using Machine Learning Approaches: A Survey and a New Idea .....	606
<i>Manel Hadjer Benyariou, Fatima Zohra Benkaddour, Noria Taghezout</i>	
Reliability Testing of RFID Reading Devices as Part of Localization Systems .....	612
<i>Martin Boros</i>	
An Efficient Hardware Implementation of the Double Q-Learning Algorithm.....	618
<i>Marouane Ben-Akka, Camel Tanougast, Camille Diou, Ahmad Chaddad</i>	
Analysis of Solidification and Melting of a Phase Change Material: Experimental and Simulation Study.....	624
<i>Sheyna Sajhia Lotun, Mahendra Gooroochurn, Roddy Michel Lollchund</i>	
Impact of Modified Bin Picking Container .....	630
<i>Matthias Sarna, Arndt Lüder, André Tegtmeier, Jens Weist, Sofia Espericueta</i>	
Artificial Neural Network with Dropout and Batch Normalization Applied on Diabetic Patient Data .....	637
<i>Alejandro Malla, Pallav Kumar Bera</i>	
Spinal Cord Like Artificial Neural Networks and Application to Robots .....	641
<i>Fumio Uchikoba, Kenji Takeda, Motokuni Ishibashi, Tatsumi Goto, Shuxin Lyu, Minami Kaneko</i>	
Hand Gesture Classification Using Deep Learning and CWT Images Based on Multi-Channel Surface EMG Signals .....	646
<i>Hebert Elias Palmera Buelvas, Juan Diego Trujillo Montaña, Ruthber Rodriguez Serrezuela</i>	
Design of Frequency-Pattern Reconfigurable Patch Array Antenna for Radar Application .....	653
<i>Mariem Amri, Ali Gharsallah</i>	
Stand-Alone DC Nano-Grid for a Tiny House with Droop Control .....	660
<i>Ayoub Benaissa, Diëgo Zuidervliet, Peter Van Duijzen</i>	
Combinatorial Unsourced Random Access Coding.....	666
<i>Marcel Fernandez, Grigory Kabatiansky, Cedric Tavernier</i>	

Control Design for Position Synchronization in Central Converter Multi-Machine Actuators .....	670
<i>Cláudio De Andrade Lima, James Cale</i>	
Flux Feedback Mechanism for Realizing Enhanced Flux Density in an Electromagnetic Vibration Energy Harvester .....	679
<i>Tunde Isaiah Toluwaloju, Chung Ket Thein, Dunant Halim</i>	
Vehicular Connectivity Modeling and Simulation Using Modified NP-CSMA.....	685
<i>Mahmoud Zaki Iskandarani</i>	
Blockchain-Based Electricity Marketplace .....	692
<i>Ameni Boumaiza, Antonio Sanfilippo</i>	
Local Energy Marketplace Agents-Based Analysis.....	697
<i>Ameni Boumaiza, Antonio Sanfilippo</i>	
E-Activities: Undergraduate International Students Adaptation in Binus University.....	703
<i>Mario Nugroho Willyarto, Ulani Yunus, Bhernadetta Pravita Wahyuningtyas, Tri Adi Sumbogo</i>	
Preventing Financial Statement Fraud with Blockchain-Based Verifiable Accounting System .....	709
<i>Jui-Hung Kao, Ren-Song Tsay</i>	
Deep Learning Convolutional Neural Networks Classification Based on Brain Cancer MRI .....	714
<i>Diyar Qader Zeebaree, Dilovan Asaad Zebari, Imad Majed Zeebaree, Mohammed Abduljabbar Mohammed, Bafreen Abduljabbar Mohammed, Nechirvan Asaad Zebari</i>	
Automated Requirements Engineering in Agile Development: A Practitioners Survey.....	720
<i>Muhammad Aminu Umar, Kevin Lano</i>	
5G in Rural Forest Enables Real Time Decision Support and New Remote Operation Solutions .....	727
<i>Per J. Nesse, Nis V. Nielsen, Sofia Davidson, Lars Gillund, Muhammed Faheem Awan</i>	
Wearable Far UVC Technology for Continuous Dynamic Personal Protection on Demand .....	733
<i>Layton C. Pratt, Ryan D. Robertson, Martin P. Mintchev</i>	
Anomaly Detection Algorithm Based on Smart Contracts Behaviours in Ethereum Ecosystem .....	737
<i>Malaw Ndiaye, Karim Konate, El Hadji Malick Ndoye</i>	
Hybrid Deep Neural Networks for Drone High Level Intent Classification Using Non-Cooperative Radar Data.....	744
<i>Benjamin Fraser, Adolfo Perrusquía, Dimitrios Panagiotakopoulos, Weisi Guo</i>	
Exploring the Role of Extracted Features in Deep Learning-Based 3D Face Reconstruction from Single 2D Images .....	750
<i>Mahfoudh Batarfi, Manohar Mareboyana</i>	
System Design for Monitoring and Measurement of Environmental Contaminants : Acquisition System for Measurement of Pollutants: Carbon Dioxide, Ozone and Suspended Particles .....	757
<i>Juan Daniel Tapia Avalos, Arturo Méndez Patiño, Enrique Reyes Archundia, María Del Carmen García Ramírez, Ismael Molina Moreno</i>	
Retreating Nouns for Better Feature Extraction for Summarization: In Context with Narratives.....	763
<i>Deepali Vaijinath Sawane, Sanjay Y. Azade, Sonali Gaikwad, Shabeena Naaz Khan, Ashish Bhalerao, Jyotsna Gaikwad, Sarfaraz Pathan, Imran Qureshi</i>	

Unmasking Fraud in Food Delivery Business: Harnessing Amazon Web Services' Random Cut Forest for Efficient Detection .....	769
<i>Mohamed R. Shoaib, Mohamed Taher, Taher Abdelhameed, Tarek Dahab, Jun Zhao</i>	
Investigation of Internet-Of-Things Gateway-Based Solution for Protection of Industrial Control Systems.....	779
<i>M. Slunjski, D. Sumina</i>	
Predicting the Remaining Useful Life of a Turbofan Engine Using LSTM and Manhattan Distances .....	785
<i>Mette B. Bertelsen, Robert Alphinas</i>	
A Deep Learning Approach for Automatic Video Coding of Deictic Gestures in Children with Autism .....	792
<i>Roberta Bruschetta, Simona Campisi, Marilina Mastrogiovanni, Elisa Leonardi, Stefania Aiello, Christian Salvatore, Alessandro Venturi, Elia Schiavon, Agrippina Campisi, Francesca Isabella Famà, Cristina Carrozza, Carla Blandino, Flavia Marino, Antonio Cerasa, Olga Capirci, Giovanni Pioggia, Liliana Ruta, Gennaro Tartarisco</i>	
On the Pivotal Role of Digital Signatures: A Review of Conception, Mensuration, and Applications .....	798
<i>Dabeeruddin Syed, Abdullah Hussein Al-Ghushami, Ameema Zainab, Oguz Alkul, Shafí I Muhammad Abdulhamid, Sharifa Yusuf, Fatemah Abozaid, Aisha Alobaidly, Aliya Almarri</i>	
Strategic Communication: Key Element for the Visibility and Impact of Innovation Processes in Organizations.....	804
<i>Jhoana Córdova-Camacho, Rosario Puertas-Hidalgo, Cesibel Valdiviezo-Abad</i>	
Study on a High Voltage Divider Composed of SMD Components on PCBs for Power Quality Measurement .....	810
<i>Saskia Dütschke, Tobias Kuhnke, Frank Jenau</i>	
Simple Pressure Sensor with Build-In Reference.....	815
<i>Kalle Hakonen, Jussi Aaltonen, Kari Koskinen</i>	
Reconsideration of the Principle of Sound Resonance in Human Whistling Using the Vocal Tract Model .....	819
<i>Mikio Mori, Tomoya Washida, Mizuki Kawarada, Masahiro Okamoto</i>	
Vehicle to Vehicle and Vehicle to Ground Communication - Speech Encryption Algorithm .....	824
<i>Obaida M. Al-Hazaimeh, Ma'Moun A. Al-Smadi</i>	
New Capabilities for Monitoring Airport (waterport) Infrastructure Using Unmanned Aerial Vehicles .....	828
<i>Przemysław Madrzycki, Dariusz Karczmarz, Robert Grzesiak</i>	
Diagnostic and Prognostic Health Management of Electric Vehicle Powertrains : A Data Driven Approach for Induction Motor .....	834
<i>Hicham El Hadraoui, Oussama Laayati, Adila El Maghraoui, Erroumaysse Sabani, Mourad Zegrari, Ahmed Chebak</i>	
Damage Identification in Complex Structures Using Vibration Data.....	840
<i>Amna Algolfat, Weizhuo Wang, Alhussein Albarbar</i>	
BenCo: First Step Towards Coreference Resolution in Bengali.....	845
<i>Mojammel Hossain, Md Samiul Islam, Jashim Uddin Ahmed, Md Rahat Kader Khan</i>	
Robot-Assisted Nuclear Disaster Response: Determinants of Performance.....	851
<i>Philippe Fauquet-Alekhine, Julien Bleuze</i>	

Perspectives on Intervention Robotics Needs.....	863
<i>Julien Bleuze, Philippe Fauquet-Alekhine</i>	
An Approach to Designing Intelligent RAN Controller Services.....	870
<i>Ivaylo Atanasov, Evelina Pencheva</i>	
Investigating Digital Examinations Through Forensic Analysis .....	877
<i>Jiayi Zu, Sathiamoorthy Manoharan, Ulrich Speidel, Xinfeng Ye</i>	
Development of Methodology and Software for Predicting the Lateral Wear of Rails .....	881
<i>Roman Kuzmich, Vladislav Sokolov, Alena Stupina</i>	
Study on Bus Noise and Vibration with Material Selected.....	885
<i>Le Duy Long, Nguyen Thanh Quang</i>	
Capacitive Displacement Sensor for a Self-Sensing Shock-Absorber Piston-Cylinder Mechanism.....	889
<i>Dario Gandini, Pierpaolo Sorbellini, Marcello Chiaberge, Simone Marchetti, Marco Di Vittorio, Giordano Greco, Piero Monchiero</i>	
Systematic Literature Review of Social Media Interactions.....	897
<i>Mariam Chaabane, Ismael Bouassida Rodriguez, Yosr Sahnoun</i>	
Performance Evaluation of the Multiclass Classification of Flowers on Diverse Datasets .....	901
<i>Phong Bui Hai, Dinh Anh Tuan, Hoang Nhat Nam, Do Nguyen Bao</i>	
Optimal False Data Injection Attack on EV Chargers and DGs in Active Distribution Networks .....	907
<i>Ahmed Abdelfatah, Abdelfatah Ali, Mostafa F. Shaaban, Ahmed Osman</i>	
Predictive Maintenance of Power Transformers Based on a Data-Driven Application.....	913
<i>Alberto Zambrano, Sergi Grau, Ugo Stecchi, Dimitris Stratogiannis, Eleni Daridou, Hrvoje Keko</i>	
Simplified Searching for Similarities in Documents .....	919
<i>Filip Žemla, Ján Cigánek, Danica Rosinová</i>	
Development of a Network-Based Ultra-Precision Fluidic Micro-Pump System .....	925
<i>Duc-Nam Nguyen, Van-Tuan Nguyen, Van-Son Vu</i>	
Design of an Educational-Development Platform for Digital Twins Using the Interoperability of the OPC UA Standard and Industry 4.0 Components.....	930
<i>Martin Pajpach, Rudolf Pribiš, Peter Drahoš, Erik Kucera, Oto Haffner</i>	
On the Evaluation of a DD-DDQ Wireless Inductive Link in Electric Vehicle Chargers at Lateral Misalignments .....	936
<i>Hanaa Sadoun, Eiman Elghanam, Mohamed S. Hassan, Ahmed Osman</i>	
Speech Enhancement Using Non-Linear Extended Kalman Filter to Train Multi-Layer Perceptron with Backpropagation.....	941
<i>Tarek Mellahi, Adil Bouhous, Seif Allah El Mesloul Nasri</i>	
Simulation of Supercapacitor Charge and Discharge in Photovoltaic Applications .....	946
<i>Fabio Corti, Antonino Laudani, Gabriele Maria Lozito, Martina Palermo, Francesco Pattini, Stefano Rampino</i>	
Advances on Application of Modern Energy Storage Technologies .....	952
<i>Levon Gevorkov, José Luis Domínguez-García, Lluís Trilla Romero, Àlber Filbà Martínez</i>	

Inclusion Principle and Overlapping Decompositions of Distributed Parameter Systems .....	958
<i>Altug Iftar</i>	
Trimmed Non-Local Means Filtering for the Suppression of Mixed Noise in Color Images .....	962
<i>Damian Kusnik, Bogdan Smolka, Milena Smolka</i>	
System Identification-Informed Transparent and Explainable Machine Learning with Application to Power Consumption Forecasting.....	968
<i>Hua-Liang Wei</i>	
PV Potential Assessment Platform .....	974
<i>Jaime Hernández-Leal, Eduardo Vega-Fuentes, Luis Mazorra-Aguiar, Fabián Déniz</i>	
Performance Evaluation of Reinforcement Learning and Graph Search-Based Algorithm for Mobile Robot Path Planning.....	978
<i>Ali Ihsan Güllü, Muhammad Shahab Alam, Ahmet Günes</i>	
Gaussian Processes for Energy Consumption Estimation of Unmanned Aerial Vehicles.....	984
<i>Javier Muñoz, Blanca López, Luis Moreno</i>	
Evaluating a Reference Model for Shared Autonomous Vehicles Using Phoenix.....	990
<i>Antonio Reis Pereira, Pedro Sousa Carneiro, Miguel Mira Da Silva</i>	
Recommender System in Social Networks Using Fuzzy Logic .....	1000
<i>Farzad Kaviani</i>	
End-To-End Solar Energy Optimization Platform and Scalability Test.....	1007
<i>Panitarn Chongfuangprinya, Bo Yang, Yanzhu Ye, Shashank Danda, Natsuhiko Futamura, Yoshihisa Okamoto, Anthony Hoang, Pikkin Lau</i>	
Robust Position-Based Visual Servoing of Industrial Robots Using Feedforward Kinematic Approach Based on Integral Quasi-Super Twisting Algorithm .....	1013
<i>Ehsan Zakeri, Wen-Fang Xie</i>	
Artificial Intelligence Techniques Applied in Precision Marketing: A Survey .....	1019
<i>Nouhaila El Koufi, Abdessamad Belangour</i>	
Non-Contact Ice Detection Using Waveguide Sensor at 12.4-18 GHz Frequency Span.....	1024
<i>Fatemeh Niknahad, Kasra Khorsand Kazemi, Omid Niksan, Mohammad H. Zarifi</i>	
Windy Energy Production Planning Considering Local Marginal Prices.....	1029
<i>Vitor P. Guarezzi, M. Judite Ferreira, Everthon T. Sica, J. Ricardo Puga, Ana Madureira</i>	
Using Internal D Flip-Flops in FPGA as Alternative Memory .....	1035
<i>Bilge Deniz Maden, Mustafa Gündüzalp</i>	
The Study and Improvement of X Band Patch Antenna Integrated on Junction Solar Cells.....	1039
<i>Zakarya Kourdi, S-M. Hadj Irid, Ahmed Ali Kanoun, Mohammed Amin Rabah, Faiza Merad</i>	
Tabular Monte Carlo Reinforcement Learning for Valve Position Control .....	1045
<i>Piotr Felisiak</i>	
A Novel, Spherical Sensor Array to Detect Extra-Terrestrial Mass Asymmetry .....	1053
<i>Peter Mark Jansson, John Schmalzel, Neal Graneau, Luka Baramidze, Tyler Burns, Jacob Van Der Heijden, Liam Caulfield, Hank Bethel, Peter Zaki, Eric Jansson, William McGrath, Frank Jansson</i>	

An Experimental Approach of Breathing Cycle Detection Based on FMCW Radar at WiFi Band .....	1059
<i>Manuel A. Yarlequé Medina, Hansel J. Martínez Odiaga, Sthefany Alvarez Navarro</i>	
State-Space Modeling and Analysis of Distributed Secondary Control of DC Microgrids.....	1062
<i>Anuoluwapo O. Aluko, Andrew M. Knight, David G. Dorrell</i>	
Clustering-Based Approach for Characterization of Patients with Preeclampsia Using a Non-Redundant Feature Selection.....	1068
<i>Franklin Parrales-Bravo, Jenniffer Saltos-Cedeño, Josue Tomalá-Esparza, Julio Barzola-Monteses</i>	
Modular Lithium-Ion Cell Battery Management System with High Current Balancing.....	1074
<i>Bernardo Faustino, Nuno Vieira Lopes, Diogo Costa, Helder Santos, Joel Vasco, Carlos Capela, Carlos Rabadão, Carlos Ferreira</i>	
Model-Free and Vision-Based Contact Force Control of Interventional Catheters .....	1079
<i>Hamidreza Khodashenas, Javad Dargahi</i>	
Cerebral Stroke Prediction Using Machine Learning Algorithms.....	1085
<i>Asif Rahman, Faisal Bin Abdur Rahman, Anharul Islam, Ifrat Jahan, K. M. A. Salam</i>	
A Surrogate Optimization Method for Automatically Generating Greener Software Using LLVM .....	1092
<i>Juan Carlos De La Torre, Patricia Ruiz, Pedro L. Galindo, Bernabé Dorronsoro</i>	
Study of Mass Effect in Electromechanical Modelling of Piezoelectric Energy Harvesters.....	1099
<i>Irene Pérez-Alfaro, Eduardo Hernando, Daniel Gil-Hernandez, Carmen Carrascal-Carranza, Fernando Quero, Carlos Bernal</i>	
Variational Auto-Encoding Generative Model for Speech to Singing Voice Conversion.....	1103
<i>Assila Yousuf, David Solomon George</i>	
A Compact and Low-Complexity Power Amplifier at Sub-6 GHz Band for 5G Application .....	1108
<i>Huong Thi Thu Tran, Manh Duy Luong</i>	
Survey of Security, Performance, and Profitability of Monero: A Browser-Based Cryptocurrency.....	1114
<i>Floarea Pitu, Nicoleta Cristina Gaitan</i>	
A Novel Martingale Model for Human Activity Recognition Using Robust Optimisation Techniques.....	1119
<i>Jonathan Etumusei, Jorge Martinez Carracedo, Sally McClean</i>	
First Results on Polyvinylidene Fluoride Film-Based Sensors for Fault Detection in Leather and Rubber Membranes Used in Footwear Manufacturing.....	1125
<i>Eduardo Hernando, Irene Pérez-Alfaro, Daniel Gil-Hernandez, Jesús López De Ipiña, Alfonso Pascual Martínez, Saúl Iñiguez Macedo, Antonio Saenz Martínez-Losa</i>	
An Automated AI-Based Solution for Out-Of-Stock Detection in Retail Environments .....	1130
<i>Farouk Achakir, Noureddine Mohtaram, Aurélien Escartin</i>	
Safety Analysis for Modular IEC Fusor Particle Accelerators .....	1136
<i>Yannick Verbelen, Mahmoud Bakr Arby, Alex Little, Norbert Wegrzynowski, Thomas B. Scott</i>	
Identification of Individuals Using Multimodal Data and LSTM Neural Networks .....	1145
<i>João Victor Campos De Negreiros, Caique Veiga Muniz, David Laureano Dos Santos, Fabio R R Santos, Marly G Fernandes Costa, Cicero F F Costa Filho</i>	

Control System Design Methodology for SoC FPGA.....	1151
<i>Gabriel Santana Quintana, Pedro Pérez Carballo, Carlos Betancor Martín</i>	
EduARt: Augmented Reality Based Learning Experience .....	1157
<i>Sakshi Shivnikar, Sukanya Solase, Shruti Prabhu, Madhuri Tasgaonkar</i>	
Energy Consumption and Production Forecasting Using Artificial Neural Network for Optimal Energy Cost Savings.....	1161
<i>Gustavo Dias, Pedro Fonte, Filipe Barata</i>	
A Multi-Objective Model for Sustainable Reverse Logistics Design for End-Of-Life Tires Under a Regulatory Framework: A Chilean Case Study .....	1167
<i>Ignacio Castañeda Rodríguez, Andrea Espinoza Pérez, Hakim Boudaoud</i>	
A Latent Dirichlet Allocation Approach to Determine the Antecedents of e-Satisfaction of Smart Lighting App.....	1173
<i>Anand Kumar, Pradip Kumar Bala, Rajat Kumar Behera</i>	
On Optimal Control for Nonlinear Hydraulic PTO in Wave Energy Conversion .....	1178
<i>Mauro Bonfanti, Francesco Balestrieri, Bruno Paduano, Sergej A. Sirigu, Stefano Mauro, Giuliana Mattiazzo</i>	
Lean 4.0: A Digital Twin Approach for Automated Cycle Time Collection and Yamazumi Analysis.....	1184
<i>João Pinheiro, Rui Pinto, Gil Gonçalves, Anabela Ribeiro</i>	
Imbalanced Data Stream Classification Using Dynamic Ensemble Selection .....	1190
<i>Priya. S, Haribharathi. S, Vijay Arvind. R</i>	
Comparing U-Net and Mask R-CNN Algorithms for Deep Learning-Based Segmentation of Electron Microscopy Images Containing Cavities for Nuclear Reactor Applications.....	1195
<i>S. Agarwal, A. Sawant, Tommy Wong, S. E. Copp, J. Reyes-Zacarias, S. J. Zinkle</i>	
Influence of Parallel Kinematic Machine Dimensional Tolerances on the Estimation of Payload Inertia .....	1199
<i>José Alfonso Fariás, Carol Sergenti, Marco Carnevale, Hermes Giberti</i>	
Analysis of the Energy Production Performance of the Solar Photovoltaic System Installed at ISEL.....	1205
<i>Filipe José, Carla Viveiros, Filipe Barata</i>	
Optimization of a Feedforward Neural Network's Architecture for an HVAC System Problem .....	1211
<i>Martina Palermo, Flavia Forconi, Elisa Belloni, Michele Quercio, Gabriele Maria Lozito, Francesco Riganti Fulginei</i>	
A Simplified SVPWM Technique for Five-Leg Inverter with Dual Three-Phase Output .....	1217
<i>Dmytro Kondratenko, Arkadiusz Lewicki</i>	
Face Recognition Method for Online Exams .....	1223
<i>Ashraf A Abu-Ein, Ala 'Eddin Masadeh</i>	
Solving the Network Maze: Discovering the Optimal Heuristic Algorithms for Effectively Connecting Electrical Networks Via a Single Path.....	1227
<i>Wilson Pavón, Esteban Inga, Doris Andrade</i>	
Automatic Waste Classification System Using Deep Learning Techniques .....	1234
<i>Dibash Dey, Umme Sabiha Shama, Md. Akash, Dewan Ziaul Karim</i>	

CellIdentifier: Classification of Peripheral Blood Cell Images Using Deep Learning .....	1240
<i>Oyshik Ahmed Aadi, Md. Meghdad Hossain Akash, Asif Hossain, Fahim Ishraq, Abdullah Al Fahim, Dewan Ziaul Karim</i>	
A Trademarks Application, Payment, Objection, Registration and Reporting System Using Blockchain Smart Contract.....	1246
<i>Alia Al Sadawi, Malick Ndiaye, Israa Falah Mahdi Al Khaffaf</i>	
Sail IoT Network – SIN.....	1254
<i>Pedro Vitor, João Costa, Daniel Pereira, Jorge Nuno</i>	
Shot Boundary Detection and Convolutional Neural Network for Video Classification.....	1260
<i>Federico Candela, Angelo Giordano, Maurizio Campolo, Francesco Restuccia, Francesco Carlo Morabito</i>	
Explainability of Machine Learning Models for Hydrological Time Series Forecasting: The Case of Neuro-Fuzzy Approaches .....	1265
<i>Marvin Querales, Rodrigo Salas, Romina Torres, Ana Aguilera, Yerel Morales</i>	
Methods for Determining Electroencephalograms Parameters .....	1271
<i>Oksana Kharchenko, Zlatinka Kovacheva</i>	
Breaking Down IoT Silos: Semantic Interoperability Support System for the Internet of Things .....	1277
<i>Mario San Emeterio De La Parte, José-Fernán Martínez-Ortega, Néstor Lucas Martínez, Vicente Hernández Díaz</i>	
Digital Transformation: How Has Telemedicine Impacted UAE's Healthcare Sector During the Covid-19 Pandemic? .....	1284
<i>Vasco Dias, Alaa S. Mushtaha</i>	
Data Collecting, Analysis, Classification Methods, and Approaches of the Road Pavement Defects Detection .....	1290
<i>Tomáš Martinec, Yegor Boyarchikov</i>	
Aerodynamic and Aeroacoustic Performance of Cross-Flow Fan: A Comparison Through Additive Manufacturing and Conventional Methods .....	1296
<i>Amrid Mammeri, Messipssa Aoudjit, Issiaka Traore, Ivan Dobrev, Hamidreza Vanaei, Sofiane Khelladi, Kamel Azzouz</i>	
A Data Logger for Educational Purposes of a Laboratory Chemical Reactor: An IoT Approach .....	1302
<i>José Lima, Thadeu Brito, Olga Ferreira, Maria J. Afonso, Vitor H. Pinto, José A. Carvalho, Paulo Costa</i>	
Condition Monitoring for Overall Equipment Effectiveness Using Internet of Things, Edge Computing, and Extended Reality .....	1308
<i>Minas Pantelidakis, Michail Katsigiannis, Konstantinos Mykoniatis, Gregory Purdy, Jia Liu</i>	
Motion: A Mobile Application for Yoga Pose Accuracy and Consistency .....	1314
<i>Adrian Paul Reyes, Mel Jefferson Gabutan, Ada Pauline Villacarlos, Cherry Lyn Sta Romana, Chris Jordan Aliac</i>	
Increasing the Power Density of 180 kW Synchronous Reluctance Motor by Implementing Loop Heat Pipe Cooling .....	1320
<i>Karlis Gulbis, Andrejs Podgornovs, Anatolijs Bizans, Ludmila Lavrinovica</i>	

Development of Surplus Power Generation Forecast for Use by Residential Loads.....	1325
<i>Paloma G. S. Dias, Thadeu Brito, William R. Silva, Ana I. Pereira, Luis C. G. Lopes, Murillo F. Dos Santos, Paulo Costa, José Lima</i>	
Improved Hybrid Model to Text Detection by Using K-Means and Mser-Swt with CNN .....	1331
<i>Aymen Adil, Naseer Al-Imareen, Ibrahim Alameri, Fatimah Ihsan Abdulsahib</i>	
A Machine Learning Approach to the Evaluation of Zero Trust Compliance in Network Infrastructure .....	1337
<i>Haydar Teymourlouei</i>	
Optimal Power Dispatch Problem Incorporating Electric Vehicles.....	1343
<i>Mohamed Mahmoud, Noha Shouman</i>	
Robotic Sorting of Batteries Using Visual Few-Shot Learning and Fusion with Depth Data .....	1349
<i>Philip Keller, Johannes Mangler, Nicolas Hügel, Marvin Grosse Besselmann, Arne Rönnau, Rüdiger Dillmann</i>	
Deep Learning Based Power Quality Disturbance Recognition Using Residual Network in Smart Grid.....	1356
<i>Sultan Uddin Khan, Mohammed Mynuddin, Mohammad Anwarul Islam, Mohammad Iqbal Hossain, Dewan Mohammed Abdul Ahad, Md Shahnewaz Tanvir</i>	
An Energy Efficient Multi-Region Based Mobile Routing Protocol to Improve Network Lifetime in Wireless Sensor Networks .....	1362
<i>Mohammed F. Suleiman, Usman Adeel</i>	
Comparative Analysis of Five Algorithms for the Graph Coloring Problem in Planar Graphs.....	1369
<i>Carlos Cadenas, Joel Antonio Trejo Sánchez, David Matajira, Blanca Cecilia López Ramírez, Francisco Manzano</i>	
An Efficient Resampling Technique for Financial Statements Fraud Detection: A Comparative Study.....	1374
<i>Matin N. Ashtiani, Bijan Raahemi</i>	
Cyber Security System Using Fuzzy Logic.....	1381
<i>Mohammed Mynuddin, Mohammad Iqbal Hossain, Sultan Uddin Khan, Mohammad Anwarul Islam, Dewan Mohammed Abdul Ahad, Md Shahnewaz Tanvir</i>	
Economic Dispatch Problem Based on Risk-Seeking IGDT Approach .....	1387
<i>Julio Cuenca Tinitana, Carlos Correa-Florez, Diego Patino, José Vuelvas, Leonel Aleaga, Jorge Carrión</i>	
Fresh Or Stale: Leveraging Deep Learning to Detect Freshness of Fruits and Vegetables.....	1393
<i>Rehanul Ahmed, Md. Mahidul Haque, Somak Saha, Chamak Saha, Mayurakshmi Dutta, Dewan Ziaul Karim, Moin Mostakim, Annajiat Alim Rasel</i>	
A Deep Learning Approach to Identify Dynamic Parameters in a Cartesian Robot.....	1399
<i>Daniel Marcelo González-Arriaga, María Aurora D. Vargas Treviño, Sergio Vergara Limón, Carlos Leopoldo Carreón Díaz De León, Josefina Guerrero-García</i>	
Case Study of the Stress and Deformation in Spring Body as a Mechanical Dumping Element .....	1405
<i>Stefan Mocanu, Cristian Dumitriu, Anca-Ruxandra Sasu, Oana Tonciu</i>	
FPGA Based Motor Current Signature Analysis for Stator Faults Detection in Three Phase Induction Motor.....	1411
<i>Mohamed Samy, A. M. Bassiuny, A. S. Tolba</i>	

Content Matching for City Improvement .....	1417
<i>Margarida Rodrigues, Filipe Pinto</i>	
A Long Simulation Scenario for Evaluation of Multi-Target Tracking Methods .....	1423
<i>Edmund Førland Brekke, Audun Gullikstad Hem</i>	
Accelerating Federated Learning Via Modified Local Model Update Based on Individual Performance Metric .....	1429
<i>Mahdi Barhoush, Ahmad Ayad, Anke Schmeink</i>	
A Review Paper of Electric Vehicle Stability Control .....	1435
<i>Anand L, Srinivaas A</i>	
Heuristic Approach to Ransomware Detection and Prevention at Software Or Hardware Level.....	1445
<i>Bogomil Alexandrov, Lyubomir Gotsev, Milena Vladimirova Petkova, Vladimira Vladimirova Petkova</i>	
Enhanced Yoga Posture Detection Using Deep Learning and Ensemble Modeling.....	1451
<i>Shah Imran, Zarif Sadman, Abidul Islam, Dewan Ziaul Karim</i>	
Time Series Analysis of Particulate Matter in Bangkok, Thailand .....	1457
<i>Orathai Polsen, Pianpool Kamoljitrappa</i>	
Improving Interoperability by Business Process Analysis.....	1463
<i>Mamour Fall, Mamadou Samba Camara, Mouhamed Diop</i>	
Lightweight Custom CNNs Take on Corn Leaf Disease: Deep Learning for Plant Pathology .....	1471
<i>Mohammad Yasin Arefin, Rawhatur Rabbi, Iffat Fahmida Turna, Zahra Zannat, Dewan Ziaul Karim</i>	
Analysis of Automated Forecasting Model Possibilities for Company Financial Accounting Data.....	1477
<i>Rokas Šrimaitis, Simona Ramanauskaitė, Pavel Stefanovic</i>	
Advancements and Applications of LiDAR Technology in the Modern World: A Comprehensive Review.....	1483
<i>Annurag P S, Srinivaas A</i>	
Exploring the Implementation of LSTM Inference on FPGA .....	1488
<i>Manuel L. González, Randy Lozada, Jorge Ruiz, E. S. Skibinsky-Gitlin, Ángel Miguel García-Vico, Javier Sedano, José R. Villar</i>	
Efficient Design of a Multiband Microstrip Series-Fed Array Antenna for 5G Millimeter-Wave Applications.....	1493
<i>Mohammed El-Amine Mahlia, Slimane Mekaoui, Mohamed Lamine Tounsi</i>	
On the Identification of One Diode PV Model by Reduced Forms and Different Metrics.....	1499
<i>Antonino Laudani, Francesco Riganti Fulginei, Martina Palermo, Michele Quercio, Fabio Corti, Gabriele Maria Lozito</i>	
Robot Automation Testing of Software Using Genetic Algorithm .....	1506
<i>Vinod Yadav, Raphael Kwaku Botchway, Roman Senkerik, Zuzana Oplatková Komíková</i>	
Case Study: Database Schema Design for Improved Performance in MongoDB .....	1511
<i>Camelia-Florina Andor, Viorica Varga, Christian Sacarea</i>	
Metaheuristics for Financial Investment Strategies: Applications Survey .....	1518
<i>Zineb Bousbaa, Omar Bencharaf</i>	

Optimal Protection Coordination for Inverter-Based Islanded Microgrids Utilizing an Optimized Time-Current-Voltage Characteristic.....	1524
<i>Youssef H. El Gohary, Talal Elemamali Sati, Ahmed H. Osman, Mostafa Shaaban</i>	
Low-Cost Zynq FPGA SoC-Based Data Acquisition System for Applications in the Field of Astrophysics .....	1530
<i>Selenia M. Medina-Hernández, Pedro P. Carballo, Pedro Hernández-Fernández, Sergio González</i>	
A Novel Framework for Ridesharing Services .....	1535
<i>Thi Hong Nhan Vu</i>	
Solving the Angular Velocity of the Physical Pendulum Motion by Some Numerical Methods.....	1540
<i>Salustiano Vega, Eduardo Ortigoza, Fátima Servián, Osvaldo Vega, Heriberto González, José Velásquez, Cristian Martínez</i>	
Differential Emulatable PUF Design Against Machine Learning Attacks for Hardware Security .....	1545
<i>Shengyu Duan, Chenhong Cao</i>	
Enhancing IEEE 802.11 Standard with Deep Reinforcement Learning for Optimal Channel Access .....	1551
<i>Sheila C. Da S. J. Cruz, Felipe A. P. De Figueiredo, Messaoud Ahmed Ouameur</i>	
Analysis of an Aero-Engine Fuel Control System, Rooted in Systems Thinking and Control Theory .....	1557
<i>Johney Thomas, Antonio Davis, Mathews P. Samuel, Saji Kumar S.</i>	
Addressing the Performance of Blockchain by Discussing Sharding Techniques.....	1564
<i>Ahmed Afif Monrat, Olov Schelén, Karl Andersson</i>	
Low-Cost Artificial Intelligence Enhanced Hardware Design for Data Augmentation.....	1573
<i>Abheek Gupta, Anu Gupta, Rajiv Gupta</i>	
Potential Detection of Flavescence Dorée in the Vineyard Using Close-Range Hyperspectral Imaging.....	1577
<i>Marko Barjaktarovic, Massimo Santoni, Michele Faralli, Massimo Bertamini, Lorenzo Bruzzone</i>	
Spectral and Energy Efficiency in Cell-Free Massive MIMO Systems for 5G and 6G Wireless Communications.....	1583
<i>Abdelaziz Aalili, Mohamed Boulouird</i>	
Data-Driven Model for Indoor Temperature Prediction in HVAC-Supported Buildings .....	1589
<i>Darko Palaic, Iva Matetic, Sandi Ljubic, Ivan Štajduhar, Igor Wolf</i>	
Zero-Vuln: Using Deep Learning and Zero-Shot Learning Techniques to Detect Zero-Day Android Malware.....	1595
<i>Zakaria Sawadogo, Jean-Marie Dembele, Gervais Mandy, Samuel Ouya</i>	
Transmission Expansion Planning Based on an Ant Colony Algorithm Including Distributed Generation and Security Constraints .....	1600
<i>Hugo Edgardo Hernández-Fuentes, Alejandro Marano Marcolini, José Luis Martínez-Ramos</i>	
Path Planning Algorithms for Unmanned Aerial Vehicle: Classification, Performance, and Implementation.....	1606
<i>Ali Haidar Ahmad, Oussama Zahwe, Abbass Nasser, Benoit Clement</i>	

An AI-Based Object Detection Approach for Robotic Competitions .....	1612
<i>Leonardo Pilarski, Luiz E. Luiz, João Braun, Alberto Y. Nakano, Vitor Pinto, Paulo Costa, José Lima</i>	
Drones in Forest Fire Mitigation .....	1618
<i>Vaishnavi Y Nayak, Vaishnavi G Rao, Jagruthi H</i>	
Performance Analysis of Salt Gradient Thermal Storage Device Driven by Waste Heat.....	1625
<i>Rohtash Goswami, Ranjan Das, Sayantan Ganguly</i>	
TLBO Optimized Channel Estimation for Improved Channel Quality Response .....	1631
<i>Archana Bhange</i>	
Embedded Retraining for Conductive Textile Sensor Calibration and Compensation .....	1635
<i>Phillip Petz, Florian Eibensteiner, Martina Zeinzinger; Josef Langer</i>	
Towards the Adoption of V2I to Enhance ITS in Fast Developing Cities: Case of Kigali City .....	1641
<i>Vienna N. Katambire, Richard Musabe, Alfred Uwitonze, Didancienne Mukanyiligira</i>	
Emergency Braking Control Design for a Dual Cart-Trolley Overhead Crane .....	1647
<i>Shivani Raj, B. Sandeep Reddy</i>	
RAMEN: A Ratio-Weighted Majority Entropy- Based Decision Tree Algorithm for Classifying Imbalanced Datasets .....	1653
<i>Doyin Afolabi, Oladipupo Sennaike, Shawn Ogunseye, Phillip Adewole</i>	
Water Quality Prediction Using Hybrid Classification Model .....	1659
<i>Ravi Inder Singh, Umesh Kumar Lilhore</i>	
A Low Complexity Decision Directed Adaptive Receiver for MIMO Communication Systems .....	1664
<i>Charan Litchfield</i>	
Conceptual Design of an Autonomous Unmanned Aerial Vehicle .....	1669
<i>Aftab Afzal, Luqman Al Dhafari, Ahmed Al Manai, Akbar Sheikh Akbari, Md Salim Miah, Mohammad Sayeed Hossain</i>	
Aabbrir: A New Solution for Children with Speech and Intellectual Disabilities.....	1674
<i>Rachid Zagrouba, Lojien Alroqaya, Lujain Aldraiweesh, Zaynab Almegdad, Hala Alotaibi, Yasmin Alsomaly</i>	
New Architecture for Real-Time Image Computing Using Parallel Processing Based on DSP/FPGA.....	1681
<i>Aziz Oukaira, Ali Karime, Vincent Roberge, Mohammed Tarbouchi</i>	
Capsule Network Based 3D Object Orientation Estimation.....	1685
<i>János Hollósi, Áron Ballagi, Claudiu Radu Pozna</i>	
Parameter Estimation for IPMSM Using Coupled Adaline Neural Networks Without Signal Injection.....	1691
<i>Elia Brescia, Ibrahim Celik, Giuseppe Leonardo Cascella, Enrico De Tuglie, Pietro Serafino, Roberto Anglani</i>	
Development of an Autonomous System Based on Computer Vision and Open Software-Hardware Platforms, Applied to an Educational Game for Inclusive Basic Education.....	1697
<i>Carlos Calderon-Cordova, Santiago Sarmiento-Sinche, Roger Sarango</i>	
Optimizing Lead Time in Fall Detection for a Planar Bipedal Robot .....	1703
<i>M. Eva Mungai, Jessy Grizzle</i>	

Robotic Manipulators: A Control Architecture Approach Based on Deep Reinforcement Learning and Simulation Environments .....	1710
<i>Carlos Calderon-Cordova, Roger Sarango</i>	
Evaluation of Physical Activity by Computer Vision Using Azure Kinect in University Students .....	1716
<i>Jose Sulla-Torres, Bruno Andre Santos Pamo, Fabrizzio Jorge Cárdenas Rodríguez</i>	
A Novel Antenna Array with a User Flexible Metasurface .....	1722
<i>Pranjal Wadhwa, Dennis Giannacopoulos</i>	
Deep Reinforcement Learning for Autonomous Ground Vehicle Driving in Mountainous Environments with Adverse Environmental Conditions.....	1728
<i>Roger Sarango, Carlos Calderon-Cordova</i>	
Autonomous Drone Landing on a Moving Naval Base Using Vision-Based Robot Control .....	1734
<i>Senthil Pon Vignesh Subamanian, Suvetha Meenaa Subramanian, Padmapriya Muthiah, Jalaluddin Mohd Ansari Shajahan</i>	
Temporal Convolutional Networks for Cough Detection Using Raw Waveforms: Reducing False Positive Rates with Noise Augmentation .....	1742
<i>Dagis Daniels Vidulejs, Jevgenijs Telicko, Andris Jakovics</i>	
Desing and Realization of a Computer-Assisted Nephrostomy Guidance System.....	1748
<i>Fatou Bintou Ndiaye, Leah Groves, Rebecca Hisey, Tamas Ungi, Idy Diop, Parvin Mousavi, Gabor Fichtinger, Mamadou Samba Camara</i>	
Detecting Ineffective Self-Management in Diabetic Patients: A Data Mining Perspective.....	1754
<i>Motahareh Pourbehzadi, Giti Javidi, Kimberly Johnson, Olivia Roberts</i>	
A Machine-Learning Approach for Children's Pain Assessments Using Prosodic and Spectral Acoustic Features .....	1759
<i>Abdulrahman Jamal, Sadam Al-Azani</i>	
Adaptive Disturbance Rejection Using AI .....	1765
<i>Roxana-Maria Motorga, Vlad Muresan, Mihail Abrudean, Iulia Clitan, Honoriu Valean, Laurentiu Chifor, Mihaela Unguresan</i>	
Adapting Detection in Blockchain-Enabled Federated Learning for IoT Networks .....	1773
<i>David López, Bilal Farooq, Ranwa Al Mallah</i>	
A Framework for an Intelligent Agro-Climate Decision Support System for Small-Scale Farmers in Swayimane .....	1779
<i>Naledi Portia Thothela, Elisha Markus, Muthoni Masinde, Adnan Abu-Mahfouz</i>	
Automated System for Organic Solar Cells Measurements.....	1786
<i>Levente Mihai Csep, Lorant Andras Szolga</i>	
Machine Learning Based Models for Detecting Attacks in IoT Systems .....	1792
<i>Maria Katherine Plazas Olaya, David Santiago Guerrero Martínez, Jaime Alberto Vergara Tejada, José Edinson Aedo Cobo</i>	
Advances in the Application of Convolutional Neural Networks for Glaucoma Diagnosis.....	1798
<i>Ayoub Skouta, Abdelali Elmoufidi, Said Jai-Andaloussi, Ouail Ouchetto</i>	

Microgrid Design Optimization in Benin Within the LEOPARD Project: Evaluating the Impact of Inaccurate Load Profile Estimation .....	1806
<i>S. Sanfilippo, J. J. Hernández Cabrera, J. Évora, C. M. F. Kébé, E. Kremers, B. Péchiné, J. S. Cardot, A. Rachid, A. K. Tossa, J. Lekoto, L. M. Sinsin</i>	
Surface Preparation of 3D Printed Battery Housing Materials for DIC Measurements .....	1812
<i>Szabolcs Szalai, Brigitta Fruzsina Szívós, Szabolcs Fischer</i>	
Deformation Test of 3D Printed Battery Case Using DIC Technology .....	1817
<i>Brigitta Fruzsina Szívós, Szabolcs Szalai, Szabolcs Fischer</i>	
A Novel Low-Cost Design of Bicycle Seat Mounting to Improve Ride Comfort .....	1822
<i>Chandra B. Asthana, Kuldeep S. Rawat, Akbar Eslami</i>	
Real-Time Monitoring and Control System of Water Parameters for Paiche Cultivation .....	1827
<i>Manuel Michael Beraun-Espiritu, Alexander Yordy Vidal-Barbaron, Crhistian Edgar Huamán-Laura, Alem Huayta-Uribe, Lizbeth Nattaly Mantari-Ramos, Karolina Solorzano-Pomachagua, Carlos Alberto Coaquira-Rojo</i>	
Robustness Assessment of Neural Network Architectures to Geometric Transformations: A Comparative Study with Data Augmentation .....	1833
<i>Heriniaina Andry Raboanary, Roland Raboanary, Nirina H. M. Tahiridimbisoa</i>	
Architecture Design & System Sizing of a Blockchain-Based National Population Census .....	1839
<i>Sana Rasheed, Soulla Louca</i>	
Characterization of an Experimental Bench for Low-Carbon Hydrogen Production, Storage, and Conversion.....	1845
<i>Thomas Dapra, Eric Dalmau, Patrick Poulichet, Elyes Nefzaoui</i>	
Effective Automatic Feature Engineering on Financial Statements for Bankruptcy Prediction .....	1850
<i>Xinlin Wang, Zsófia Kräussl, Maciej Zurad, Mats Brorsson</i>	
Cloud Systems with Its Security, Privacy and Trust Claims to a Sustainable Solution .....	1858
<i>Rachel John Robinson</i>	
Optimal Parameters Selection of Support Vector Machines Using Bat Algorithm.....	1864
<i>Adis Alihodzic, Eva Tuba, Milan Tuba</i>	
Energy Saving in the Building by Integration of a Passive Heating System by Parietodynamic Effect .....	1869
<i>Hajji Amine, Eraza Najoua, Laaroussi Najma, Garoum Mohammed, Rhachi Mohammed</i>	
A Study on Generative Adversarial Text to Image Synthesis .....	1874
<i>Marjana Tahmid, Samiul Alam, Kalim Akram, Kazi Muhammad Asif Ashrafi</i>	
Detection of Ethereum Smart Contracts Vulnerabilities Over Blockchain.....	1882
<i>Baddepaka Prasad, Sirandas Ramachandram</i>	
Transient Voltage Stresses for High Voltage Mixed Transmission Lines with Overhead Lines and Cables .....	1888
<i>Liliana Oprea</i>	
Dynamic Measurements of Coupled Vibrations of Ship's Shaft Lines .....	1893
<i>Guriy A. Kushner</i>	

Inverse Kinematics of a Fabric-Reinforced Inflatable Soft Robot .....	1899
<i>Phuc D. H. Bui, Joshua A. Schultz</i>	
Business Research and Data Mining: A Bibliometric Analysis .....	1905
<i>Aristidis Bitzenis, Nikos Koutsoupias, Sofia Boutsouki</i>	
Smart Energy Management System: Predictive Maintenance for Dry Power Transformers Using Transfer Learning .....	1911
<i>Oussama Laayati, Oumaima Amaziane, Mostafa Bouzi, Nabil El-Bazi, Hicham El Hadraoui, Ahmed Chebak</i>	
Sustainable Management of Wastewater Supply Chain: A Literature Review .....	1917
<i>Matías Ponce, Andrea Espinoza, Óscar C. Vásquez</i>	
Electronic Health Records (EHR) Management in Hospitals Using Blockchain Technology .....	1923
<i>Zahid Hussain Shaik, Asif Hussain Shaik, Javeed Hussain Shaik</i>	
Designing an Effective Physical Security Solution for Safeguarding Small and High-Value Assets .....	1929
<i>Nicușor Dumitru, Tamirat T. Abegaz, Luay A. Wahsheh</i>	
Learning to Build Statistical Indicators from Open Data Sources.....	1936
<i>Pilar Rey-Del-Castillo</i>	
Decentralized Control Orchestration for Dynamic Edge Programmable Systems .....	1941
<i>Jose Moura</i>	
Insulated Concrete Form (ICF) Foundation as Solar Thermal Energy Storage Integrated with Reverse Osmosis/Thermal Water Desalination Plant for Cold Climate .....	1947
<i>Mohammad E. Kashan, Alan S. Fung</i>	
Facial Emotion Recognition System for Mental Stress Detection Among University Students.....	1953
<i>Foo Jia Ming, Shaik Shabana Anhum, Shayla Islam, Kay Hooi Keoy</i>	
Total Commit and Transaction Off-Chains (TCTOC): A Blockchain Scalability Solution .....	1959
<i>William Jephthe Mayila Mve, Govindha Ramaiah Yeluripati</i>	
Kho Kho Model: A Novel Technique for Efficient Handoff in Vehicular Ad-Hoc Networks .....	1964
<i>Libin Thomas, Sandeep J</i>	
Surgical Planning for the Removal of Cranial Espheno-Orbital Meningioma Through the Use of Personalized Polymeric Prototypes Obtained with an Additive Manufacturing Technique .....	1971
<i>Freddy Patricio Moncayo-Matute, Pablo Gerardo Peña-Tapia, Efrén Vázquez-Silva, Paúl Bolívar Torres-Jara, Diana Patricia Moya-Loaiza, Gabriela Abad-Farfán</i>	
Fourier-Legendre Series Neural Networks for Classification.....	1978
<i>Li-Jeng Huang, Duc-Hien Le, Shyh-Haur Chen</i>	
Design of High Throughput Flexible Ring Oscillator .....	1984
<i>V. B. Chaitanya, M. Yuvakeshwar, Mohamed Asan Basiri M</i>	
Leader Election in a Distributed CAN-Based Multi-Microcontroller System.....	1990
<i>Andrea Reindl, Daniel Wetzel, Michael Niemetz, Hans Meier</i>	
Evaluation of Technologies to the Brazilian Army from the Application of the AHP-TOPSIS-2N Method with Patent Analysis.....	1998
<i>Romullo Girardi, Marcos Dos Santos</i>	

Situational Awareness in the Automotive Domain - Effects on Driving Performance and Driver's Behavior .....	2004
<i>Kristina Stojmenova Pececnik</i>	
The Negative Effects of Recommender Systems on the Unsuspecting User.....	2009
<i>Ruquaiya Abdullahi Shuaibu, Govindha Ramaiah Yeluripati</i>	
Hybrid Deepfake Detection Utilizing MLP and LSTM.....	2014
<i>Jacob Mallet, Natalie Krueger, Rushit Dave, Mounika Vanamala</i>	
Your Identity is Your Behavior - Continuous User Authentication Based on Machine Learning and Touch Dynamics.....	2019
<i>Brendan Peltt, Mounika Vanamala, Rushit Dave</i>	
Filipino and Bisaya Speech Corpus and Baseline Acoustic Models for Healthcare Chatbot ASR.....	2025
<i>Ronald Pascual, Judith Azcarraga, Charibeth Cheng, John Andrew Ing, Jian Wu, Mark Louis Lim</i>	
A Comparison of Predictive Models for Rice Imports in Iraq: Artificial Neural Networks Vs. Traditional Techniques .....	2030
<i>Marwan Abdul Hameed Ashour, Rabab Alayham Abbas</i>	
Design of a Foldable Laser-Based Energy Transmission System for a Mini Lunar Rover .....	2035
<i>Arvind Mukundan, Akash Patel, Keshav Dutt Saraswat, Ankit Tomar, Hsiang-Chen Wang</i>	
Design of a Fuzzy-Based Controller for Real-Time Control of CNC Machines .....	2041
<i>Mostafa Mehrabi</i>	
Anomaly Detection of a 5-Phase AC Electric Motor Using Machine Learning Classification Methods.....	2046
<i>Nerea Robles, Danel Madariaga, Fernando Alvarez-Gonzalez, Andres Sierra-Gonzalez</i>	
Electromagnetic Design of a Wave Energy Converter Magnetic Gear with a Torque Density Above 300Nm/L .....	2052
<i>Hossein Baninajar, Jonathan Bird</i>	
Determining Factors of the Competitiveness of the Assembly of Plug-In EV&PHEV Passenger Vehicles 2013-2019 .....	2057
<i>Josué Enrique Diaz Murillo, Irma Cristina Espitia Moreno</i>	
Meshless Dynamic Model of the Navier-Stokes Equations for Aneurysms Using Mechatronically Designed Stents to Support Endovascular Treatments .....	2064
<i>P. A. Ospina-Henao, Michael Mauricio Galindo, Sara Isabel Núñez Escobar, Julián Felipe Patiño Rocha, Sebastián Otalora Velasco, Karen Cecilia Villaronga, Natalia Serrano Ardila, Juan Felipe Bueno</i>	
How to Get Away with OpenAirInterface: A Practical Guide to 5G RAN Configuration.....	2071
<i>Mauri Seidel, Andreas Ingo Grohmann, Peter Sossalla, Florian Kaltenberger, Frank H. P. Fitzek</i>	
Solar Energy: An Analysis of Global, Direct and Diffuse Solar Irradiance for Mauritius.....	2077
<i>Tyagaraja Sooprayen Modelly Cunden, Jay Rovisham Singh Doorga, Ravindra Boojhawon, Soonil Dutt Rughooputh</i>	
HYDRA - High Yield Dense Robotic Arms .....	2083
<i>Andreas Ingo Grohmann, Frank Peters, David Kuß, Peter Sossalla, Frank H. P. Fitzek</i>	

Lithium-Ion Battery Remaining Useful Life Prediction Method Concerning Temperature-Influenced Charging Data.....	2089
<i>Sikai Gong, Hongwen He, Xuyang Zhao, Yiwen Shou, Ruchen Huang, Hongwei Yue</i>	
Adaptive Super Twisting Sliding Mode Speed Drive of a Six-Phase Induction Motor.....	2096
<i>Zohra Njajra, Jamel Ghouili</i>	
A Secure Lightweight Authentication Mechanism for IoT Devices in Generic Domain.....	2102
<i>Sanaz Kavianpour, Abdul Razaq, Gavin Hales</i>	
Software Implementation and Performance of a Computational Complexity Reduced Belief Propagation Polar Code Decoder .....	2108
<i>Arvid B. Van Den Brink, Oguz Meteer, Marco J. G. Bekooij</i>	
Safety Concepts for Brake-By-Wire Pedal Boxes .....	2115
<i>Simon Schrade, Xi Nowak, Dieter Schramm, Armin Verhagen</i>	
Classification of Footprints for Correctives in Orthopaedics .....	2121
<i>Sophie Bauernfeind, Christoph Praschl, Markus Wakolbinger, Gerald A. Zwettler</i>	
A Reinforcement-Learning-Based Agent to Discover Safety-Critical States in Smart Grid Environments.....	2127
<i>Alessandro Santorsola, Antonio Maci, Piero Delvecchio, Antonio Coscia</i>	
Flexible Circuit Designs of M-Ary Digital Modulations and Demodulations.....	2134
<i>M. V. D. B. Anjaneya, Shivalasya Chinthalala, Mohamed Asan Basiri M</i>	
Smart Sustainable Agrivoltaics Systems: The Future of Sustainable Agricultural Technology (Agri-Tech) and Green Energy .....	2140
<i>Godlove Suila Kuaban, Piotr Czekalski, Onyeka Josephine Nwobodo, Raivo Sell, Agris Nikitenko, Karlis Berkolds, Kenedy Tabah Tanko</i>	
Performance Impact of Parallel Access of Time Series in the Context of Relational, NoSQL and NewSQL Database Management Systems .....	2146
<i>Sebastian Pritz, Martina Zeinzinger, Christoph Praschl, Oliver Krauss, Martin Harrer</i>	
Investigating Discular Frequency Diverse Arrays for Scanning Applications.....	2152
<i>Maryam Hasheminasab, Ahmed Cheldavi, Ahmed A Kishk</i>	
SwabBot-An Oral Swabbing Robotic Arm.....	2156
<i>John Varghese Panicker, Divy Jain, Vibodh H. N, T. Vishnu Yeshwanth, Swetha Ramaiah</i>	
Approach to Designing a Mobile Service Collaborative Robot for Healthcare and Disadvantaged People .....	2162
<i>Nina Valchkova, Roman Zahariev, Cvetelina Totomirova, George Angelov, Yasen Paunski, Vasil Cvetkov</i>	
Applied Anomaly Detection: A Bayesian Approach to Improve Robustness .....	2168
<i>Piero Danti, Alessandro Innocenti</i>	
Application of Explainable Artificial Intelligence to Analyze Basic Features of a Tender.....	2174
<i>Maria Fernanda Molina-Miranda, Ximena Acaro, Miguel Molina, Mabel Quiñonez, Genesis Alvarez, Juan Fernandez-Olivares, Raul Pérez</i>	
Python-Based Simulation and Analysis of Electrical Circuits Through Transfer Functions .....	2180
<i>Lucas Anderson Ribeiro</i>	

Experimental Tension Spring Stiffness Measuring Device .....	2186
<i>Šimon Berta, Vladimír Goga, Justín Murín, Ladislav Šarkán</i>	
Quantitative Analysis of Factors Influencing Adoption of Internet of Things in Australian Manufacturing Industries.....	2191
<i>Abhishek Mitra, A. Seetharaman</i>	
A Wearable Biosensor for Non-Invasive Real-Time Monitoring of Hydrogen Peroxide in Exhaled Breath for Worker's Health in the Construction Industry .....	2196
<i>Islam Asem Abusohyon, Giuseppe Aiello, Rosalinda Inguanta, Maria Giuseppina Bruno, Mo'Men Abu Sahyoun, Salvatore Quaranta</i>	
Mutli-Objectve Performance Assessment of Vehicles for Logistic Operations: Methodology and Case Study.....	2202
<i>Salvatore Quaranta, Giuseppe Aiello, Rosalinda Inguanta, Francesco Bonafede, Islam Asem Salah Abusohyon, Mario Venticinque</i>	
Leveraging Cloud-Based Geospatial Data to Enhance Public Services. a Case Study of the SPOTTED Project .....	2208
<i>Antonio Filograna, Giovanni Giacco, Giuseppe Di Caprio</i>	
A Street Lighting Based on Solar Energy: Optimization of a Neural Network for the Productivity Evaluation in Different Climate Conditions .....	2214
<i>Elisa Belloni, Andrea Massaccesi, Cristina Moscatiello, Luigi Martirano</i>	
Machine Learning Methods for Prediction of COVID-19 Patient Length of Stay: Using Texas PUDF Data .....	2220
<i>Junyan Zhang, Peter Yu</i>	
Vehicle Routing Problem Considering Electric Vehicle Battery Consumption .....	2227
<i>Nikica Peric, Slaven Begovic, Mohan Muniappan, Vinko Lešić</i>	
Distributed Parametric Model Predictive Control of Street Lighting .....	2233
<i>Husam I. Shaheen, Marina Gapit, Ana Martinovic, Vinko Lešić</i>	
Area&power Optimized Modulo ( $2^n \pm 2^p \pm 1$ ) Multiplier .....	2239
<i>Kashkanov Artem, Martirosyan Elizaveta</i>	
A Discrete-Time Output Feedback Terminal Sliding Mode Control Approach for SISO Systems .....	2243
<i>Khalid Abidi</i>	
Machine Learning Approaches for the Classification of Knee Osteoarthritis .....	2249
<i>Tayyaba Tariq, Zobia Suhail, Zubair Nawaz</i>	
Study on Inertia Based MPPT Control Using Reinforcement Learning Algorithm for Extra Power Production .....	2255
<i>Nyam Jargalsaikhan, Sergelen Byambaa, Furukakoi Masahiro, Senju Tomonobu</i>	
Fast-Charging Capability Versus Energy Density – a Parametric Study Using a Multi-Dimensional Lithium-Ion Cell Model .....	2260
<i>Alexander Fill, Mike Kopp, Jessica Hemmerling, Sabri Baazouzi, Luca Tendera, Kai Peter Birke</i>	
Frequency-Watt Algorithm Employment for Grid-Connected Microgrid Using PHIL Simulation: Case Study of the Smart Grid Test Lab in Morocco .....	2268
<i>Mohamed Laamim, Bouthaina El Barkouki, Oumaima Mahir, Abdelilah Rochd, Aboubakr Benazzouz, Moses Kang</i>	

Cloud Classification Via Satellite Images Using Residual Network .....	2274
<i>Meryem Sena Bark, Osman Akin</i>	
Technology Adoption for Precision Agriculture in Africa: A Bibliometric Analysis.....	2279
<i>Sithandiwe Twetwa-Dube, Olukayode Ayodele Oki</i>	
AIDECT - AI-Based Integratable Detection for Beyond 5G Networks.....	2286
<i>Muhammad Yunis Daha, Joseph Rafferty, Muhammad Ikram Ashraf, Muhammad Usman Hadi</i>	
Irregular Luggage Classification Experiments Using Data from Tromsø Airport.....	2291
<i>Andreas Dyrøy Jansson, Bernt Arild Bremsdal, Espen Remman</i>	
A Blockchain-Based Architecture for National Population Census.....	2299
<i>Sana Rasheed, Soulla Louca</i>	
Deep Learning Models for Opinion Mining Analysis .....	2305
<i>Salmi Cheikh, Jessie J Walker, Djebari Lydia, Benhalima Ilyas</i>	
A Method to Characterize the Impedance of the Low Voltage Electric Power Grid .....	2311
<i>Leandro A. A. Galicia, Cesar J. B. Pagan, Gustavo L. De Moraes</i>	
Questions Regarding the Applicability of a LiDAR-Based SLAM Method.....	2317
<i>Rudolf Krech, Áron Ballagi</i>	
Advanced Control of Pressure Inside a Surgical Chamber Using AI Methods .....	2323
<i>Roxana-Maria Motorga, Vlad Muresan, Mihail Abrudean, Honoriu Valean, Iulia Clitan, Laurentiu Chifor, Mihaela Unguresan</i>	
Selecting Microcontrollers for the Creation of Intelligent Textile Systems.....	2331
<i>Daniela Sofronova, Radostina A. Angelova, Yavor Sofronov</i>	
TEFNEN: Transformer for Energy Forecasting in Natural Environment.....	2336
<i>Samuel Domínguez-Cid, Diego F. Larios, Julio Barbancho, Alberto Gonzalez Salvador, Enrique S Quintana-Ortí, Carlos León</i>	
Power Losses Minimization for Cooperative Microgrids Distribution Systems .....	2342
<i>Bouthaina El Barkouki, Mohammed Ouassaid, Mohamed Laamim, Aboubakr Benazzouz</i>	
Optimization of Power Supply System of Motorway Energy Consumers Through Reliability Analyses .....	2349
<i>Fuad Pašalic, Mirza Batalovic, Senad Smaka, Sead Berberovic, Mirza Matoruga</i>	
Analysis and Modeling of Thermo Mechanical Deformations and Stresses in Redistribution Layers in the Fan-Out Wafer Level Packaging.....	2355
<i>Sergey Evstafyev, Denis Vertyanov, Mikhail Kochergin, Raiymbek Zhumagali, Ilya Solovyov</i>	
4-Lead ECG Monitoring for Cardiac Care: Advancing Healthcare with Innovative Use of Connected Watches.....	2360
<i>Hayat Zaydi, Zohra Bakkoury</i>	
The Impact of Smart Analytical Methods in Reducing Financial Biases Data.....	2366
<i>Ayman Mazzouz, Fatima-Ezzahra Harbal, Abdelali Elmoufidi, Mohamed Erritali</i>	
IoT Concept and SDN Fusion in Consumer Products: Overview .....	2371
<i>Martins Mihaeljans, Andris Skrastins</i>	

Design of a Flocculation-Thickening Test Bench for Laboratory Operations Using Model-Based System Engineering.....	2377
<i>Amine Ennawaoui, Hicham El Hadraoui, Younes Chhiti, Ilyass Mousaid, Mohammed Bensitel, Ahmed Chebak</i>	
A Deep Reinforcement Learning Framework for Training SARSA Agents (DQSARSA Agents) to Improve Consensus in Blockchain Networks.....	2383
<i>Zakariya Qawaqneh, Arafat Abu Mallouh</i>	
On Securing Communications Between Connected Objects Using a Data-Centric Security Approach .....	2390
<i>Fehmi Jaafar, Darine Ameyed, Yasmine Bouzid, Abib Sy</i>	
Toward Multi-Level Automatic Updates of Deep Learning Models Using New Micro, Meso, and Macro Stability Metrics .....	2398
<i>Nafaa Jabeur, Adel Abdelli</i>	
A Comparative Study on Recent Trends to Secure Big Data.....	2405
<i>Kalim Qureshi</i>	
PSO Tuned Marine Microgrid Load Frequency Control .....	2408
<i>Rajib Baran Roy, Sanath Alahakoon, Umme Mumtahina, Ashfaque Ahmed Chowdhury</i>	
An Offloading Strategy for Ocean Edge Computing Based on Whale Optimization Algorithm .....	2414
<i>Shan Lin, Chengwei Zhu, Yan Wei, Shaojian Yang, Jianzhang Liu, Yufan Yuan, Xingbin Tu, Fengzhong Qu</i>	
Adaptive Retransmission Scheme for Underwater Acoustic Nodes Based on Distance Ranging.....	2420
<i>Ximing Chen, Yanbing Fu, Xingbin Tu, Yan Wei, Shaojian Yang, Zhipeng Li, Fengzhong Qu</i>	
Limits of Humanoid Robots Based on a Self-Literature Review of AI's Limits .....	2426
<i>Alexandru Tugui</i>	
An Offloading Strategy for Ocean Edge Computing Based on Game Theory .....	2430
<i>Shan Lin, Yu Yuan, Yan Wei, Shaojian Yang, Jianzhang Liu, Yufan Yuan, Xingbin Tu, Fengzhong Qu</i>	
Comparison of Bio-Based Triboelectric Nanogenerator (B-TENG) Performance for Self-Powered Sensor Applications .....	2436
<i>Muhammad Aqmal Saparin, Hanim Salleh, Chong Kok Hen, Shahnyeel Kumar</i>	
An Efficient Image Watermarking Method Based on Discrete Cosine Transform .....	2442
<i>Lujain Alghamdi, Wujud Alharthi, Masoud Alajmi</i>	
Integrated Raw Data Collection and Validation System for Indoor Positioning.....	2448
<i>Yangkoo Lee, Minjung Kim, Giyoung Lee, Jaejun Yoo, Daesub Yoon</i>	
Single-Source Visible Light Positioning .....	2454
<i>Shervin Mehryar</i>	
Predictive Modeling of Diabetes Hospital Readmission Using Machine Learning Algorithms.....	2460
<i>Maria Marquez Sosa, Daniel Felipe Hernandez</i>	
Development of Image Processing Techniques in Crack Detection and Analysis.....	2466
<i>Luqman Sulaiman Al Dhafari, Aftab Afzal, Raid Ibrahim Al Bahrani, Yahyah Al Busaidi, Akbar Sheikh-Akbari, Mohammad Sayeed Hossain</i>	

Extracting Psychological Features Out of Drawings of HTP Test.....	2473
<i>Linda Abdullah, Sibel Halfon, Elena Battini Sönmez</i>	
Towards Deep Learning-Based Classification of Multiple Gestures Using Sonomyography for Prosthetic Control Applications.....	2479
<i>S. Manikandan, A. S. Prasad, Biswarup Mukherjee, Pradeeba Sridar</i>	
Skills Matching to Support Europe's Blue Economy Skills Passport.....	2484
<i>Marios Katsis, Panos Papadatos, Maria Rigou, Spiros Sirmakessis, Dimitris Vossos</i>	
Development of Artificial Intelligence as a Breakthrough for Personalization in Marketing.....	2490
<i>Andrii Kushnarevych, Daniela Kollárová</i>	
Artificial Intelligence Contribution to Art-Therapy Using Drawings of the House-Person-Tree Test .....	2496
<i>Ahmet Atakan Salar, Hajar Faiyad, Elena Battini Sönmez, Sibel Hafton</i>	
Optimal Robust Control Scheme for SSSC System Based on $H_\infty$ to Improve Power System Small Signal Stability .....	2502
<i>Mahsa Kashani, Zhenyu Yang, Mohammad Ali Lasemi</i>	
Multi-Agent Collision Avoidance Method Using Fuzzy Risk Estimation and Information Sharing in Unknown Environments .....	2507
<i>Yigit Can Dundar, Bernt Arild Bremsdal, Anne Hakansson, Randi Karlsen</i>	
Hybrid Framework for Generating Structured Data Synthetically While Maintaining Referential Integrity .....	2514
<i>Anirudh Sharma, Mohit Pawar, Ramkumar B, Akarsh Rastogi, Ravi Kumar, Chirag Jain</i>	
A Low Cost and Highly Parameterizable Energy Meter .....	2520
<i>J. Rosado, Filipe Cardoso, Marco Silva</i>	
Low Intricate Digital Twin Method to Predict Cardiac Arrhythmia .....	2526
<i>Hemalatha Karnan, Hariharan S</i>	
Approximation of Higher Order Electric Vehicle System Incorporating Factor Division Method .....	2532
<i>A. V. Waghmare, V. P. Meena, Emre Arslan, U. K. Yadav, V. P. Singh</i>	
Optimal Data Sample Length for System Call Traces for Malware Detection in an IoT Ecosystem .....	2538
<i>John Carter, Spiros Mancoridis, Pavlos Protopapas</i>	
Predicting Wheat Supply and Demand: A Systematic Literature Review of Machine Learning Approaches.....	2544
<i>Dalin Almbaidin, Wael Etaiwi</i>	
Denoising Using a Hybrid Filter Comprised of GGIF, WLS, and 2D Bilateral Filtering.....	2552
<i>Abhilasha Sharma, Aryaman Dosajh, Moin Ahmad Chalkoo</i>	
A Novel Framework for Real-Time Fire Detection in CCTV Videos Using a Hybrid Approach of Motion-Flicker Detection, Colour Detection and YOLOv7 .....	2559
<i>Sangeetha Jamal, Henok Jackson, Evin Benny, Jeroen Dani Koshy, Gloria Joseph</i>	
Preference Learning in Food Recommendation: The "Myfood" Case Study .....	2565
<i>Simone Sandri, Andrea Molinari</i>	
App-Based Operation of a Control Room Setup: The LeitstandsApp of the CELSIUZ .....	2571
<i>Andreas Schulz, Michal Dostál, Jörg Lässig</i>	

Best Practices for Developing Socially-Aware Service Robots with Predictive Techniques to Enhance Social Comfort.....	2577
<i>Silvia Guillén Ruiz, Juan P. Bandera Rubio, Alejandro Hidalgo-Paniagua, Antonio Bandera</i>	
A Study on the Design and Financial Viability of Solar PV Plants in Rwanda .....	2583
<i>Morris Kayitare, Gace Athanase Dalson, Al-Mas Sendegeya</i>	
Strategic Bus Stop Allocation for Enhanced Accessibility in the Amman Bus Rapid Transit.....	2589
<i>Lamis Ashour, Deyala Tarawneh</i>	
Contribution to Attendance and Fraud Management in Engineering Schools and Digital Universities with Deep Learning.....	2599
<i>Khalifa Sylla, Birahim Babou, Samuel Ouya</i>	
Contribution to the Quasigroup Based Error-Detecting Code .....	2603
<i>Natasha Ilievská</i>	
EGPBD: An Event-Based Gold Price Benchmark Dataset.....	2609
<i>Farah Mansour, Wael Etaiwi</i>	
Remote Control of a Teleoperated Multi-Purpose Mobile Robot Platform Using a Web-Based Graphical Interface, Via MQTT and Web Sockets .....	2616
<i>Petko Stoev, Denis Chikurtev, Tsvetelin Stefanov, Denislav Dimitrov, Detelina Vitanova</i>	
Protection System to Improve the Resistance of Grounding in the Telephony Base Stations Viettel Perú SAC.....	2622
<i>Julio Fredy Chura Acero, Yony Alcides Mamani Mamani, Henry Shuta Lloclla, Milder Zanabria Ortega, Fredy Bernardo Coyla Apaza, Wilson Percy Clavetea Meneses</i>	
Microstrip Patch Antenna for Single Resonant Frequency Using Various Types of Slots.....	2628
<i>Md Amirul Islam, Giovanni Stea, Md Ashraf Uddin, Sultan Mahmud, Kh. Mustafizur Rahma</i>	
A Low-Cost Buoyant Force Measurement Device for Monitoring Sugar Concentration in Water Solution .....	2635
<i>Luka Kaucic, Ivana Kovacevic, Ivan Aleksi, Tomislav Keser, Josip Zidar, Snježana Rimac-Drlje</i>	
Optical Image Recognition Strategy for Keyword Extraction and Page Ranking for Slide Recommendation System .....	2641
<i>Chukwuka Victor Obionwu, S. M Laique Abbas, Visakh Padmanabhan, Taruna Tiwari, David Brioneske, Gunter Saake</i>	
Electrical Circuit Simulation Environment for Student Education.....	2647
<i>Aleksandr Kornilov</i>	
Control by Wire (CBW) Interface Module for 48 V to 96 V Electric Motor Controllers.....	2653
<i>Leonardo Costa, Pedro Sousa, Nuno Vieira Lopes, Diogo Costa, Helder Santos, Joel Vasco, Carlos Capela, Carlos Rabadão, Carlos Ferreira</i>	
Prediction of the Mechanical Characteristic of Bamboo Using Deep Neural Network.....	2657
<i>Raviduth Ramful, Mohammad Shoaib Casseem</i>	
Comparative Analysis Between Feedforward Neural Network and CNN-LSTM Neural Network to Predict Household Electrical Energy Consumption .....	2662
<i>Shahid Tufail, Mohd Tariq, Shanzeh Batool, Arif Sarwat</i>	

A Strategy for Retrospective Evaluation of Students SQL Learning Engagements .....	2668
<i>Chukwuka Victor Obionwu, Kalu Oji Kalu, Paul Blockhaus, David Broneske, Gunter Saake</i>	
Integration of an Industrial Control to a Digital Twin at the Industrial Level .....	2675
<i>Veronica Guerrero-Hernandez, Guillermo Reyes-Morales, Pedro Jacome-Onofre, Jorge Alberto Ortega Moody, Farid-Armando Matacapan-Toto, Maria Angélica Martínez Herrera</i>	
Influence of Primary Suspension Parameters on the Wear Behaviour of Heavy-Haul Railway Wheels Using Multibody Simulation .....	2683
<i>Philippe Pacheco, Matheus Valente Lopes, Pedro H. A. Correa, Auteliano Antunes Dos Santos</i>	
Adjusted Harris Hawks Optimization for the Minimum Weight Triangulation.....	2688
<i>Adis Alihodzic, Eva Tuba, Milan Tuba</i>	
A Hybrid Approach for Smart Alert Generation.....	2694
<i>Yao Zhao, Sophine Zhang, Zhiyuan Yao</i>	
Measuring Suitability of Servers for Jobs in a Simulated Distributed System .....	2700
<i>Yasmin Eady, Kofi Kyei, Albert Esterline, Joseph Shelton</i>	
A Case Study on Crash Safety Strategies and Targets of Battery Electric VS Internal Combustion Engine Vehicles .....	2707
<i>Abhijeet Thorat, Shantanu Shinde, Huzefa Patanwala, Elham Sahraei</i>	
Intra-Hour Solar Irradiance Forecast in Multiple Locations Using Deep Transfer Learning .....	2712
<i>Aditi Roy, Ulrich Muenz, Joachim Bamberger, Ti-Chiun Chang, Chris Bilby</i>	
Tactical Autonomous Maneuver Testbed for Multi-Agent Air-Ground Teams.....	2718
<i>Landon Stauffer, Pratheek Manjunath, Dongbin Kim, Christopher Korpela</i>	
Computational Fluid Dynamics Modeling of a Novel 3D-Printed Dual-Rotor Cascaded Wind Turbine .....	2724
<i>Michael S. Davis, Mohammad R. Madani, Afef Fekih</i>	
Adversarial Attacks on Traffic Sign Recognition: A Survey .....	2730
<i>Svetlana Pavlitska, Nico Lambing, J. Marius Zöllner</i>	
Towards an Ontology and Process Mining-Based System for Targeted E-Commerce Marketing Strategy Suggestions .....	2736
<i>Elisabeth Mayrhuber, Oliver Krauss, Martin Hanreich, Andreas Stöckl</i>	
A Fog Computing Monitoring System for Fused Visible and Infrared Imagery with an Application to Building Preservation .....	2742
<i>Giuseppe Aiello, Salvatore Quaranta, Maria Giuseppina Bruno, Giulia Marcon, Islam Asem Salah Abusohyon, Mario Venticinque</i>	
Clustering of Risk Factors for Coronary Heart Disease Using the K-Prototypes Algorithm .....	2747
<i>Eni Sawitri Setianingsih, Hasih Pratiwi, Yuliana Susanti, Muhammad Bayu Nirwana</i>	
Design and Implementation of High Dynamics Servo-Valve Driver for Electro-Hydraulic Actuator in Legged Robot's Applications .....	2752
<i>Ghiath Abdulmalek, Anas Ammounah, Naima Ait Oufroukh, Samer Alfayad, Said Mammar</i>	
A Control Strategy for Electromagnetic Transient in Renewable Energy Systems Based on Virtual Synchronous Generation .....	2759
<i>Hao Chen, Qixia Zhang</i>	

Acoustic Attenuation in Exhaust Muffler with the Use of Granular Material .....	2764
<i>D. Díaz-Sinche, J. Castillo-Calderón, R. Carrión Jaura</i>	
IoT-Based System for Monitoring Energy Consumption in Smart Cities .....	2771
<i>Aytun Onay</i>	
ECOPACAYA 4.0: An Innovative Platform Based on Tourism 4.0 for Ecotourism, Scientific Tourism and Sustainable Use of the Ecosystem in the Pacaya Samiria Amazon Lodge Private Reserve in the Amazon Jungle of Peru .....	2777
<i>J. Baldeón, A. Masuda, R. Gálvez, D. Auccapuri, E. Díaz, A. Arana, P. Chávez, V. Hernández, M. Lau</i>	
Fall Detection System for Elderly People Using IoT and Machine Learning Technology .....	2783
<i>Khalid Nafil, Abdellatif Kobbane, Abdoul-Bagui Mohamadou, Anass Saidi, Banouk Yahya, Lamnaouer Oussama</i>	
Machine Learning Techniques for Early Prediction of Diabetes on Multiple Datasets .....	2788
<i>Daniel Lu, Andrew Tao, Tingying Helen Zeng, Mikhail Shalaginov</i>	
Comparing Traditional and Deep Learning Approaches in Developing Chess AI Engines.....	2794
<i>Bassam A. Abdelghani, Jamal Dari, Shadi Banitaan</i>	
Impact of Electric Vehicles on Carbon Emissions in Great Britain.....	2801
<i>Yazan Al-Wreikat, José Ricardo Sodré</i>	
Safeguarding Inter-Device Communications for Connected Systems: A Holistic Security Framework.....	2807
<i>Vahid Eftekhari Moghadam, Paolo Prinetto</i>	
Revolutionizing Weed Detection in Agriculture Through the Integration of IoT, Big Data, and Deep Learning with Robotic Technology .....	2813
<i>Nafil Khalid, Hajar Elkhiri, Elyazyd Oumaima, Nouhaila Elfahsi, Zaglami Fatima Zahra, Kobbane Abdellatif</i>	
Fuzzy Logic-Based Congestion Control in AODV Mesh Networks .....	2819
<i>Ibrahim Alameri, Jitka Komarkova, Tawfik Al-Hadhrami, Haidr Alkaraawi</i>	
Model of a Control Law to Improve the Performance of a Robot Manipulator .....	2829
<i>Alejandro Hossian, Roberto Carabajal, Maximiliano Alveal, Hernan Merlino</i>	
Novel Band-Subtraction Technique to Differentiate Screws for Microwave Cavity Filter Tuning.....	2838
<i>Even Sekhri, Mart Tamre, Rajiv Kapoor; Dhanushka Chamara Liyanage</i>	
The Environmental Impact of Water Intakes and Discharges for Desalination .....	2844
<i>Eduardo De Miguel, Deivis Avila, G. Nicolás Marichal</i>	

## Author Index