ADVANCES IN SCIENCE, TECHNOLOGY AND ENGINEERING SYSTEMS JOURNAL

Volume 3 Issue 4 July-August 2018 CONTENTS Performance Enhancement of MIMO-OFDM Using Redundant Residue Number 01 SystemPredicting Smoking Status Using Machine Learning Algorithms and Statistical Analysis Mohamed Abd Elghany Khalifa, Amr Elsayed Emam, Mohamed Ibrahim Youssef Simulation Strategy to Enhance Oxygen Uptake and Reaction Forces at Leg 08 Joints and Vertebral Bodies During Ergometer Exercise Under Altered Gravity Yoshihiko Tagawa, Masayuki Omoto, Hiroo Matsuse, Naoto Shiba Scientific Principles behind 2017 World Universiade of Safety Lantern and Torch 21 Wei Long Chen, Fang Lin Chao Stream Cipher by Reed-Solomon Codes 26 Tao Wu, Ruomei Wang Direct Torque Control of Multiphase Doubly Converter-fed Asynchronous 33 Machines Incorporating the Harmonic Torques Javier Martínez-Román, Luis Serrano-Iribarnegaray, Juan Carlos del Pino-López, Pedro Cruz-Romero 45 A detailed step-by-step electrical parameters identification method for photovoltaic generators using a combination of two approaches Selma Tchoketch Kebir, Mohamed Salah Ait Cheikh, Mourad Haddadi Dc-link voltage drift compensation in a four level Double- Star Converter using 53 redundant states via phase-shifted PWM strategy Carlos A. Reusser An FPGA Implementation of Resource-Optimized Dynamic Digital Beamformer 59 for a Portable Ultrasound Imaging System Jingwei Xu, Yi Zheng, Mohan Chirala, Mohamed Almekkawy Interactive Virtual Reality Educational Application 72 Shoug. Al Awadhi, Noor. Al Habib, Dalal Al-Murad, Fajer Al deei, Mariam Al Houti, Taha Beyrouthy, Samer Al-Kork Theory Building of Quattro Bottom Line Approach for Sustainable Reverse 83 Logistics from Government Perspective: The Indonesia Evidence Hesti Maheswari, Gatot Yudoko, Akbar Adhiutama

99 Extendable Board Game to Facilitate Learning in Supply Chain Management Linda William, Za'Aba Bin Abdul Rahim, Robert de Souza, Eko Nugroho, Rio Fredericco Effectiveness of Routing Protocols for Different Networking Scenarios 112 Akbor Aziz Susom Complete Modeling of the Hydrogen Stored in a Spherical Cavity 122 Kamel. Idris-Bey, Sofoklis S. Makridis Acoustic Signal Processing and Noise Characterization Theory via Energy 130 Conversion in a PV Solar Wall Device with Ventilation through a Room Himanshu Dehra Supporting Active Aging Through A Home Automation Infrastructure for Social 173 Internet of Things Vittorio Miori, Dario Russo, Luca Ferrucci Vertical Accuracy Assessment of DSM from TerraSAR-X and DTM from Aerial 187 Photogrammetry on Paddy Fields – Karawang, Indonesia Bambang Riadi, Yustisi A. Lumban-Gaol, Bimo Wicaksono, Sekar Pranadita

Design of smart chess board that can predict the next position based on FPGA 193 Alaa Hamza Omran, Yaser Muhammad Abid

Experimental Investigation of Human Gait Recognition Database using Wearable 201 Sensors

Sherif Said, Samer Al-Kork, Vishnu Nair, Itta Gowthami, Taha Beyrouthy, Xavier Savatier, M Fayek Abdrabbo

Psychoacoustical Approach in Soundscape Characterization 211 Mia Suhanek, Ivan Djurek, Sanja Grubeša, Antonio Petoši?

Textural Analysis of Pap Smears Images for k-NN and SVM Based Cervical 218 Cancer Classification System Abraham Amole, Bamidele Sanya Osalusi

A Dual-Band 90-Degree SiGe HBT Active Phase Shifter Based on Band-Pass and 224 Band-Stop Designs Using Dual-Band Resonators Yasushi Itoh

A modular design process for developing humanoid mobile robot VieBot 230 Hung Chan Nguyen, Ha Xuan Nguyen, Ngoc-Anh Mai, Lam Bao Dang, Hai Minh Pham

A novel mixed-mode universal biquad employing plus current output DVCCs 236 Takao Tsukutani, Yasutomo Kinugasa, Noboru Yabuki Pole-Changing Windings for Close Ratio and 1:N Ratio Using the 3//Y / 3//Y 241 Method Gabor Kovacs

Wireless Channel Measurement and Modeling in Industrial Environments 254 Kun Zhang, Liu Liu, Cheng Tao, Ke Zhang, Ze Yuan, Jianhua Zhang

Topology, Discontinuities and Dimension Effects on CMOS Rotary Traveling 260 Wave Oscillators Rogelio Manuel Higuera Gonzalez, Mónico Linares Aranda, Luis Hernández Martínez, Carlos Sanabria Díaz

Sequential Card Activities of Recollect Experience for Elderly with Dementia 270 Fang Lin Chao, Boxiu Fanjiang

The Impacts of Distribution Generators' Size and Location on Power Efficiency 276 and Voltage Profile in Radial LV Networks Maher M.A Al-Maghalseh

The experience of implementation with Agile Business Process Management284Denis Rodríguez, Enrique Silva Molina

Defined Limited Fractional Channel Scheme for Call Admission Control by Two-295 Dimensional Markov Process based Statistical Modeling Md. Asadur Rahman, Md. Shajedul Islam Sohag, Rasel Ahmmed, Md. Mahmudul Haque, Anika Anjum

Synthesis of QDI Combinational Circuits using Null Convention Logic Based on 308 Basic Gates Duarte Lopes de Oliveira, Orlando Verducci, Vitor Leandro Vieira Torres, Robson Moreno, Lester de Abreu Faria

A Comparative Analysis of two Controllers for Trajectory Tracking Control: 318 Application to a Biological Process Abyad Mohamed, Karama Asma, Khallouq Abdelmounaim

Minimizing Time Delay of Information Routed Across Dynamic Temporal Sensor 327 Networks Michael J. Hirsch, Azar Sadeghnejad

Application of Modularization Idea of Fault Tree in Ship Pilotage Risk Decision 341 Making Wei Hongbin

Zebrafish Larvae Classification based on Decision Tree Model: A Comparative 347 Analysis Bayan AlSaaidah, Waleed Al-Nuaimy, Mohammed Rasoul Al-Hadidi, Iain Young MARWIN: Localization of an Inspection Robot in a Radiation exposed 354 Environment Andre Dehne, Nantwin Moller, Thorsten Hermes

Amplitude-Frequency Analysis of Emotional Speech Using Transfer Learning and 363 Classification of Spectrogram Images Margaret Lech, Melissa Stolar, Robert Bolia, Michael Skinner

IR Sensing Embedded System Development for Prototype Mobile Platform and 372 Multisensory Data Fusion for Autonomous Convoy Hubert Bryan Riley, David Solomon Raj Kondru, Mehmet Celenk