

CONTENTS

Markov Regime Switching Analysis for COVID-19 Outbreak Situations and their Dynamic Linkages of German Market
by Kangrong Tan and Shozo Tokinaga

Characterization and Investigating the Effect of Gate-Insulator Thickness on Co-Axial Cylindrical Carbon Nanotube Field Effect Transistor
by Suchismita Sen, Argha Sarkar and Pinaki Chakraborty

Design of an Open Source Anthropomorphic Robotic Hand for Telepresence Robot
by Jittaboon Trichada, Traithep Wimonrut, Narongsak Tirasuntarakul and Eakkachai Pengwang

Localization of Impulsive Sound Source in Shallow Waters using a Selective Modal Analysis Algorithm
by Faraz Talebpour, Saeed Mozaffari, Mehrdad Saif and Shahpour Alirezaee

Inferring Student Needs Based on Facial Expression in Video Images
by Yu Yan, Eric Wallace Cooper and Richard Lee

Temperature-Compensated Overcharge Protection Measurement Technology
by Jin Uk Yeon, Ji Whan Noh and Innyeal Oh

Measurement System for Evaluation of Radar Algorithms using Replication of Vital Sign Micro Movement and Dynamic Clutter
by Christoph Domnik, Daniel Erni and Christoph Degen

A Multiplatform Application for Automatic Recognition of Personality Traits in Learning Environments
by Víctor Manuel Bátiz Beltrán, Ramón Zatarain Cabada, María Lucía Barrón Estrada, Héctor Manuel Cárdenas López and Hugo Jair Escalante

Analysis and Trend Estimation of Rainfall and Seasonality Index for Marathwada Region
by Himanshu Bana and Rahul Dev Garg

Fuzzy MPPT for PV System Based on Custom Defuzzification
by Abdelmadjid Allaoui, Mohamed Nacer Tandjoui and Chellali Benachaiba

Indoor Positioning: Comparing Different Techniques and Dealing with a user Authentication use Case
by Joaquín Pérez Balbela and Aruna Prem Bianzino

A Circuit Designer's Perspective to MOSFET Behaviour: Common Questions and Practical Insights

by Ralf Sommer, Carsten Thomas Gatermann and Felix Vierling

Hybrid Intrusion Detection Using the AEN Graph Model

by Paulo Gustavo Quinan, Issa Traoré, Isaac Woungang, Ujwal Reddy Gondhi and Chenyang Nie

Nonlinear Model Predictive Control of Rover Robotics System

by Serdar Kalaycioglu and Anton de Ruiter

Navigation Aid Device for Visually Impaired using Depth Camera

by Hendra Kusuma, Muhammad Attamimi and Julius Sintara

Forecasting the Weather behind Pa Sak Jolasid Dam using Quantum Machine Learning

by Chaiyaporn Khemapatapan and Thammanoon Thepsena

Proportional Derivative and Proportional Integral Derivative Controllers for Frequency Support of a Wind Turbine Generator in a Diesel Generation Mix

by Abdul Ahad Jhumka, Robert Tat Fung Ah King, Chandana Ramasawmy and Abdel Khoodaruth

Omni-directional Multi-view Image Measurement System in the Co-sphere Framework

by Yung-Hsiang Chen and Jin H. Huang

Distribution Management Problem: Heuristic Solution for Vehicle Routing Problem with Time Windows (VRPTW) in the Moroccan Petroleum Sector

by Younes Fakhradine El Bahi, Latifa Ezzine, Zineb Aman, Imane Moussaoui, Miloud Rahmoune and Haj El Moussami

Analysis of Linear and Non-Linear Short-Term Pulse Rate Variability to Evaluate Emotional Changes during the Trier Social Stress Test

by Alvin Sahroni, Isnatin Miladiyah, Nur Widiasmara and Hendra Setiawan

Detecting the Movement of the Pilot's Body During Flight Operations

by Yung-Hsiang Chen, Chen-Chi Fan and Jin H. Huang

Day-Ahead Power Loss Minimization Based on Solar Irradiation Forecasting of Extreme Learning Machine

by Adelhard Beni Rehiara, Sabar Setiawidayat and Frederik Haryanto Sumbung

On the Polytopic Modelling & Robust H^∞ Control of Nonlinear Systems Subject to Cyber-attack: Application to Attitude Stabilization of Quadrotor

by Bezzaoucha-Rebaï Souad

Human-Centered Design, Development, and Evaluation of an Interface for a Microgrid Controller

by Mohammed Mahfuz Hossain, Thomas Ortmeyer and Everett Hall

Development and Analysis of Models for Detection of Olive Trees

by Ivana Marin, Sven Gotovac and Vladan Papić

HistoChain: Improving Consortium Blockchain Scalability using Historical Blockchains
by Marcos Felipe and Haiping Xu

The First Application of the Multistage One-Shot Decision-Making Approach to Reevaluate a Technology Project Decision Problem
by Mohammed Al-Shanfari

Hybrid Machine Learning Model Performance in IT Project Cost and Duration Prediction
by Der-Jiun Pang

Hybrid Discriminant Neural Networks for Performance Job Prediction
by Temsamani Khallouk Yassine, Achchab Said, Laouami Lamia and Faridi Mohammed

Metaheuristic Optimization Algorithm Performance Comparison for Optimal Allocation of Static Synchronous Compensator
by Abdulrasaq Jimoh, Samson Oladayo Ayanlade, Emmanuel Idowu Ogunwole, Dolapo Eniola Owolabi, Abdulsamad Bolakale Jimoh and Fatina Mosunmola Aremu

Social Financial Technologies for the Development of Enterprises and the Russian Economy
by Evgeniy Kostyrin and Evgeniy Sokolov

Assessment of Scattered-Bend Loss in Polymer Optical Fiber (POF) Displacement Sensor
by Latifah Sarah Supian, Danial Haikal Mohd Razali, Chew Sue Ping, Nurul Sheeda Suhaimi, Sharifah Aishah Syed Ali, Nani Fadzlina Naim and Harry Ramza

Detecting CTC Attack in IoMT Communications using Deep Learning Approach
by Mario Cuomo, Federica Massimi and Francesco Benedetto

Active Simulation of Grounded Parallel-Type Immittance Functions Employing VDBAs and All Grounded Passive Components
by Pratyha Mongkolwai, Pitchayanin Moonmuang, Worapong Tangsrirat and Taweepol Suesut

Tunable Resistorless Phase Shifter Realization with a Single VDGA
by Orapin Channumsin, Jirapun Pimpol, Tattaya Pukkalanun and Worapong Tangsrirat

A Model for Teaching Mathematics to Gifted Students Based on an Effective Combination of Various Approaches for their Preparation
by Zhanna Dedovets, Mikhail Rodionov and Anna Novichkova

Design and Comparative Analysis of Hybrid Energy Systems for Grid-Connected and Standalone Applications in Tunisia: Case Study of Audiovisual Chain
by Saidi Mohamed, Habib Cherif, Othman Hasnaoui and Jamel Belhadj

Photoluminescence Properties of Eu(III) Complexes with Two Different Phosphine Oxide Structures and Their Potential uses in Micro-LEDs, Security, and Sensing Devices: A Review
by Hiroki Iwanaga

Design and Implementation of an Automated Medicinal-Pill Dispenser with Wireless and Cellular Connectivity

by Chanuka Bandara, Yehan Kodithuwakku, Ashan Sandanayake, R. A. R. Wijesinghe and Velmanickam Logeeshan

Smart Healthcare Kit for Domestic Purposes

by Yehan Kodithuwakku, Chanuka Bandara, Ashan Sandanayake, R.A.R. Wijesinghe and Velmanickam Logeeshan

A Review of the Role of Information Technology in Brazilian Higher Educational Institutions during Covid-19 Pandemic

by Luís Cláudio Dallier Saldanha

Hybrid Neural Network Method for Predicting the SOH and RUL of Lithium-Ion Batteries

by Brahim Zraibi, Mohamed Mansouri, Salah Eddine Loukili and Said Ben Alla

Investigation of Swimming Behavior and Performance of the Soft Milli-Robots Embedded with Different Aspects of Magnetic Moments

by Xiuzhen Tang and Laliphat Manamanchaiyaporn

Three-phase Continuously Variable Series Reactor – Realistic Modeling and Analysis

by Mohammadali Hayerikhiyavi and Aleksandar Dimitrovski

How a Design-Based Research Approach Supported the Development and Rapid Adaptation Needed to Provide Enriching Rural STEM Camps During COVID and Beyond

by Rebecca Zulli Lowe, Adrienne Smith, Christie Prout, Guenter Maresch, Christopher Bacot and Lura Murfee