2023 IEEE International Symposium on Product Compliance Engineering - Asia (ISPCE-ASIA 2023)

Shanghai, China
3 – 5 November 2023

IEEE Catalog Number: CFP23BWD-POD
ISBN: 979-8-3503-6121-6

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:	CFP23BWD-POD
ISBN (Print-On-Demand):	979-8-3503-6121-6
ISBN (Online):	979-8-3503-6120-9
ISSN:	2831-3402

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
Web: www.proceedings.com

Contents

Program in Detail

Papers **1**

Design and implementation of a lightweight advertising system based on Internet of Things 1

Two-Space Prediction Approach Based Evolutionary Dynamic Multi objective Optimization 7

Design and application of data-driven LESN-DHP controller 13

Predicting the Energy Meter Demand by a Window-based Gradient Boosting Regression Tree Model 20

Periodic Analysis of Meter Installation data in Fujian Province based on Spectral Analysis 26

A CNN-LSTM-Based Model for Predicting Monthly Power Capacity 31

A Privacy-aware Framework for Assessing and Recommending Short Video Advertisement 37

Analysis of the cyclical change in the capacity of business expansion based on spectral analysis 44

An Extended Inverse Reinforcement Learning Control For Target-Expert Systems With Different Parameters 50

UAV Trajectory Planning for Data Collection in Internet of Vehicles: A Reinforcement Learning Approach 56

Evaluation and Analysis Method for Distribution Network Flexibility Considering Typical Scene Set 62

Height estimation and the number of trees in transmission line corridors based on multi-source data fusion 69

Research and Application of Visual Operation and Maintenance Technology for Conveyor Belt in Catalyst Workshop 74

The impact of regenerative braking in electric vehicles to energy-efficient routing performance 80

Generative AI Enables EEG Data Augmentation Via Diffusion Model 85

Intelligent Sharding Decision for Blockchain-Enabled Industrial IoT Based on A3C Approach 91

Enhancing Navigation Aids Status Recognition Based on Extended Space Forest and Time Domain Features Fusion 97

Event-Based Pinning Synchronization in Delayed Dynamical Networks With Stochastic Noises 103

A Joint Design of Path Planning and Lane Reservation for Emergency Service in ITS 109

ComESN: Compressive Echo State Network for Multi-task Time-series Prediction 115

Improved Neural Collaborative Filtering Recommendation Method based on Multi-Head Attention and Feature Fusion 121

Temporal Action Localization : A Review 127

SETRN: A Transform Structure with Adaptive 3D Attention Mechanism and Global Semantic Supervision for Mobile-Captured Retail Receipts Recognition 133

Intelligent Retrieval and Question Answering Technology for Power Grid Security Standards: A Brief Survey 140

A Critical Review on Hazard Analysis and Risk Assessment for Development of Wearable Medical Devices 147

Consumer and Industrial Mobile Robot Navigation Based on Evidential Multi-Granularity Three-Way Decisions 152
Rotated quaternion valued algebra and its application to discrete time rotated quaternion valued Fourier transform based human signal processing 158
Query Reformulator And Contrastive Answer Ranker For Conversational Question Answering Over Knowledge Graph 162
Synthesis of Biocomposite through Electrospinning and Screw Extruder in Smart Laboratory Safety 168
An Approximation Technique for Solving Linear-Quadratic Optimal Control Problems Using Chebyshev Polynomials 174
Advancing Fire Safety in Hong Kong Buildings: An IoT-Based Fire Accident Indication System 178
Integrating Functional Safety into Hazard-Based Safety Engineering: Towards a Comprehensive Framework 182
Quality-Cost Trade-off on Constructing Logical Views for Vehicular Cyber-Physical Systems: A Deep Reinforcement Learning Approach 190
Research on Reducing the Resonance Frequency of Low Frequency Metamaterials 196
Sequence Residual Frequency Domain Segmentation Temporal Convolutional Network for COVID-19 Prediction 202
An efficient algorithm to remove electrocardiogram from respiratory signals by using wavelet spectrum and secant method 208
Feature-Ranked Attention-Driven LSTM: A Novel Hybrid Model for Short-Term Stock Price Predictions 214
Electrical Equipment Fault Diagnosis: A Technique Combining Fuzzy Logic and Large Language Models 220