## 2024 2nd Asia Conference on **Electronics Engineering** (ACEE 2024)

Singapore 19-21 April 2024



**IEEE Catalog Number: CFP24BG7-POD ISBN**:

979-8-3503-7526-8

### Copyright © 2024 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:
 CFP24BG7-POD

 ISBN (Print-On-Demand):
 979-8-3503-7526-8

 ISBN (Online):
 979-8-3503-7525-1

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

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-040

Phone: (845) 758-0400 Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



#### 2024 2nd Asia Conference on Electronics Engineering (ACEE)

### **ACEE 2024**

#### **Table of Contents**

Preface	viii
Organizing Committee	
Reviewers List	
Advanced Information Theory and Interactive Design	
Design and Application of a Dual-Stream Convolutional Neural Network Integrating Exp Experience and Transfer Learning	ert 1
Design and Research of Agricultural and Forestry UAV Based on MQTT Server	7
Design and Application of Human-Machine Interaction Interface for CODESYS Electric D	
Weixuan Wang (CRRC Dalian R & D Center Co., Ltd. Dalian, China), Deyu Jiao (CRRC Dalian R & D Center Co., Ltd. Dalian, China), Zhe Li (CRRC Dalian R & D Center Co., Ltd. Dalian, China), Yumeng Cui (CFHI (Heilongjiang) Agriculture Machinery Development Co., Ltd., China), Yuanzhi Li (CRRC Dalian R & D Center Co., Ltd., China), Kai Huang (CRRC Dalian R & D Center Co., Ltd., China), and Binghai Yu (CRRC Dalian R & D Center Co., Ltd., China)	

# Control Model and Parameter Optimization in Electronic Information Systems

Parameter Identification and Control of Two-Wheel Balance Vehicle Model Based on Subspace Algorithm
Xuehui Li (Tianjin University of Technology and Education Tianjin Key Laboratory of Information Sensing and Intelligent Control, China), Yongli Zhang (Tianjin University of Technology and Education Tianjin Key Laboratory of Information Sensing and Intelligent Control, China), Lihui Geng (Tianjin University of Technology and Education Tianjin Key Laboratory of Information Sensing and Intelligent Control, China), and Ruijian Yuan (Tianjin University of Technology and Education Tianjin Key Laboratory of Information Sensing and Intelligent Control, China)
Robust Control of two-Wheeled Bicycle Robot Under wind Disturbance
A LUT-Based Fixed-Modulo Architecture for Efficient Multipliers of Residue Number System30 Bhargava Sai Nadendla (Kennesaw State University, USA), Bobin Deng (Kennesaw State University, USA), and Dan Chia-Tien Lo (Kennesaw State University, USA)
A Compact, Polarization-Insensitive, Double Negative (DNG) Perfect Metamaterial Absorber for Electromagnetic Energy Harvesting Applications
Computational Models and Data Analysis of Modern Electronic Systems
Effects of Coir Fiber Pretreatment on Mortar Characteristics using Water Absorption and Resistivity Tests
Electron Density Variations in the Ionosphere Associated by the Tonga Volcanic Eruption in 2022 Over Southeast Asia using Global Navigation Satellite Systems
Design of a Double-Layer Electromagnetic Shielding Door for 10 kHz to 18 GHz

thor Index 5	3
thor Index5	•