2020 IEEE 8th International Conference on Smart City and Informatization (iSCI 2020)

Guangzhou, China **29 December 2020 – 1 January 2021**



IEEE Catalog Number: CFP20Y10-PODA **ISBN:**

978-1-6654-0395-5

Copyright © 2020 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:	CFP20Y10-PODA
ISBN (Print-On-Demand):	978-1-6654-0395-5
ISBN (Online):	978-1-6654-0394-8

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



2020 IEEE 8th International Conference on Smart City and Informatization (iSCI) **iSCI 2020**

Table of Contents

Welcome Messages from IEEE iSCI 2020 General Chairs vii
Welcome Messages from IEEE iSCI 2020 Program Chairs viii
IEEE iSCI 2020 Organizing and Program Committees .ix

Session iSCI-1

Design of an E-Attendance Checker through Facial Recognition using Histogram of Oriented Gradients with Support Vector Machine .1
Allan Jason C. Arceo (Mapua University, Philippines), Renee Ylka N. Borejon (Mapua University, Philippines), Mia Chantal R. Hortinela (Mapua University, Philippines), Alejandro H. Ballado Jr. (Mapua University, Philippines), and Arnold C. Paglinawan (Mapua University, Philippines)
An Autonomous Parking Space Planning System Based on Pattern Searching Algorithm .6 Xinxin Huang (Peking University, China), Yingguo Gao (Peking University, China), and Xiaohui Duan (Peking University, China)
Accessible Driver Announcement in Public Transportation: A Solution Based on Speech-to-Text and Display .13 Abhijeet Sapkota (OsloMet - Oslo Metropolitan University, Norway) and Raju Shrestha (OsloMet - Oslo Metropolitan University, Norway)
E-Government Deep Recommendation System Based on User Churn .20 Yanan Wang (Digital Finance Lab ICBC Technology Co., Ltd., China), Airong Quan (Digital Finance Lab ICBC Technology Co., Ltd., China), Xiaonan Ma (Digital Finance Lab ICBC Technology Co., Ltd., China), and Junqing Qu (Digital Finance Lab ICBC Technology Co., Ltd., China)
Human Activity Recognition Based on WiFi Signal Using Deep Neural Network .26 Ningjie Zhou (Shenzhen University, China), Weize Sun (Shenzhen University, China), and Mingjiong Liang (Shenzhen Air traffic Management Station, China)
Intelligent Surveillance in Smart City Using 3D Road Monitoring .31 Aroma Tariq (University of Agriculture, Faisalabad, Pakistan), Saqib Ali (Guangzhou University, Guangzhou, P. R. China), Xiaofei Xing (Guangzhou University, Guangzhou, P. R. China), and Guojun Wang (Guangzhou University, Guangzhou, P. R. China)

Challenges and Trends of Android Malware Detection in the Era of Deep Learning .37 Sancheng Peng (Laboratory of Lang. Eng. and Comp., Guangdong University of Foreign Studies, PR China), Lihong Cao (Guangdong University of Foreign Studies, PR China), Yongmei Zhou (Guangdong University of Foreign Studies, PR China), Jianguo Xie (Network and Information Center, Guangdong University of Foreign Studies, PR China), Pengfei Yin (Jishou University, PR China), and Jianli Mo (Hunan University of Information Technology, PR China)
Prediction of Parkinson's Disease using Principal Component Analysis and the Markov Chains.44 Syed Qasim Afser Rizvi (Guangzhou University, China), Pin Liu (Central South University, China), Guojun Wang (Guangzhou University, China), and Muhammad Arif (Guangzhou University, China)
Machine Learning-Based Update-Time Prediction for Battery-Friendly Passenger Information Displays .49 Peter Herrmann (Norwegian University of Science and Technology (NTNU), Norway), Ergys Puka (Norwegian University of Science and Technology (NTNU), Norway), and Tor Rune Skoglund (FourC AS, Norway)
Intelligent Transportation System: Managing Pandemic Induced Threats to the People and Economy .60 Priyanka Trivedi (Queen's University, Canada) and Farhana Zulkernine (Queen's University, Canada)
A Lightweight Authentication Method between Homogeneous Nodes in Wireless Sensor Network Based on Message Authentication Code .68 <i>Kezhong Wang (China University of Mining and Technology, China), Yutao</i> <i>Wang (China University of Mining and Technology, China), Ruicong Zhang</i> <i>(China University of Mining and Technology, China), Rundong Ye (China</i> <i>University of Mining and Technology, China), and Yu Bao (China</i> <i>University of Mining and Technology, China)</i>
Towards Blockchain-Driven Network Log Management System .73 Mohammad Habibullah Rakib (University of Dhaka, Bangladesh), Showkot Hossain (University of Dhaka, Bangladesh), Mosarrat Jahan (University of Dhaka, Bangladesh), and Upama Kabir (University of Dhaka, Bangladesh)
A Survey of Emotion Analysis in Text Based on Deep Learning .81 Lihong Cao (Laboratory of Lang. Eng. and Comp., Guangdong University of Foreign Studies, PR China), Sancheng Peng (Laboratory of Lang. Eng. and Comp., Guangdong University of Foreign Studies, PR China), Pengfei Yin (Central South University, PR China), Yongmei Zhou (Guangdong University of Foreign Studies, PR China), Aimin Yang (Guangdong University of Technology, PR China), and Xinguang Li (Laboratory of Lang. Eng. and Comp., Guangdong University of Foreign Studies, PR China)
 Fast Bug Detection Algorithm for Identifying Potential Vulnerabilities in Juliet Test Cases 89 Richard Amankwah (Jiangsu University, China), Jinfu Chen (Jiangsu University, China), Alfred Adutwum Amponsah (Jiangsu University, China), Patrick Kwaku Kudjo (University of Professional Studies, Ghana), Vivienne Ocran (Presbyterian College of Education, Ghana), and Comfort Ofoley Anang (Presbyterian College of Education, Ghana)

Author Index 95.