

# **2022 27th International Computer Conference, Computer Society of Iran (CSICC 2022)**

**Tehran, Iran  
23 – 24 February 2022**



**IEEE Catalog Number: CFP2292G-POD  
ISBN: 978-1-6654-8028-4**

**Copyright © 2022 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:	CFP2292G-POD
ISBN (Print-On-Demand):	978-1-6654-8028-4
ISBN (Online):	978-1-6654-8027-7

**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](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

## Article titles index

1. *RGB image Encryption and Decryption with Neural Chaotic Functions...1*
2. *C-MIFS: Cellucci's Mutual Information For Feature Selection...9*
3. *Efficiency of deep neural networks for reinforced concrete shear walls failure mode detection...14*
4. *An Artificial Intelligence System for Detecting the Types of the Epidemic from X-rays...18*
5. *Identification of Medicinal Plants in Ardabil Using Deep learning...24*
6. *A Model-Based Approach for Representing Data Sharing Mechanism in Android Applications...30*
7. *Exploring the Similarities of Iranian Influencers with Regards to Content, Relationships and Interactions with Users...37*
8. *HTS-DL: Hybrid Text Summarization System using Deep Learning...42*
9. *A Practice of Human-Machine Collaboration for Persian Text Summarization...47*
10. *A decentralized and trustless e-voting system based on blockchain technology...52*
11. *Using Decision Tree as Local Interpretable Model in Autoencoder-based LIME...59*
12. *A Pattern-aware Design and Implementation Guideline for Microservice-based Systems...66*
13. *TEMPPO: Twin Entropy Maximized Proximal Policy Optimization...72*
14. *A Deep Learning Embedded System for 3D Human Face Shape Reconstruction From a Single Image...78*
15. *Automatic Generation of Business Intelligence Chatbot for Organizations...84*
16. *Distributed Constraint Programming based on Fuzzy Probability Applied to Aphasia Diagnosis...89*
17. *2D HP protein folding using quantum genetic algorithm...96*
18. *Unsupervised Anomaly Detection with an Enhanced Teacher for Student-Teacher Feature Pyramid Matching...104*
19. *PASR: Process-Aware Middleware Framework for Dynamic Service Replacement in SOA...108*
20. *Evaluating Various Feature Extraction Methods and Classification Algorithms for Music Genres Classification...114*
21. *Towards a Formalism for Specifying N-way Model Merging Rules...120*
22. *Fault-Localization in Water Distribution Networks using Hierarchical Anomaly Analysis...127*
23. *Persian Stance Detection with Transfer Learning and Data Augmentation...132*
24. *DDoS Attack Detection in OpenFlow Based Networks...137*

25. *GRACER: Improving the Accuracy of RACER Classifier Using A Greedy Approach...144*
26. *Improving the method of detecting Influenza outbreak in a location by analyzing Twitter data and comparing it with official statistics...150*
27. *A Robust, Lightweight Deep Learning Approach for Detection and Mitigation of DDoS Attacks in SDN...155*
28. *Imaging Time Series for Deep Embedded Clustering: a Cryptocurrency Regime Detection Use Case...162*
29. *Presenting method to schedule tasks in the cloud computing environment using the whale optimization algorithm...167*
30. *Accelerated 4PCS Algorithm for Point Cloud Registration...173*
31. *Time-aware MDP-based Service Migration in 5G Mobile Edge Computing...178*
32. *Single- and Multi-UAV Trajectory Design Inspired by Head of Disk Scheduling...183*
33. *Determining COVID-19 Severity with Fuzzy Inference System...189*
34. *Flexible and Automatable Microfluidic-based Architecture and CAD Algorithm for Implementation of Large DNA Digital Storage...194*
35. *A Flexible Cyclic Redundancy Codes' Selection to Increase Fault-Tolerance in Smart Buildings...201*
36. *Towards the Efficiency of the Fusion Step in Language-Based Fashion Image Editing...207*
37. *SGFS: A semi-supervised graph-based feature selection algorithm based on the PageRank algorithm...212*
38. *Spreader node detection based on the Perron-Frobenius theorem in complex networks...218*
39. *ROS-Based Co-Simulation for Formal Cyber-Physical Robotic System Design...223*
40. *Locality and priority in Auction-based resource allocation in blockchain network...228*
41. *Forgery Attack on An Outsourced Attribute-Based Signature Scheme...234*
42. *A Restricted 4PCS Algorithm for Registering Low Overlap Point Cloud...238*
43. *Improved Rabin-Karp Algorithm Using Bloom Filter...243*
44. *Computation Offloading Strategy for Autonomous Vehicles...248*
45. *Group recommendation in Telegram by membership graph analyzing...254*
46. *Content-Based Telegram Group Recommender System...261*
47. *Brain Drain Optimization: a Novel Approach for Task Scheduling in the Cloud Computing...267*
48. *Attention-based Persian Language Modeling...273*

<i>49. A Convolutional Neuro-Fuzzy Network Using Fuzzy Image Segmentation for Acute Leukemia Classification...</i>	<i>278</i>
<i>50. Enriching Educational Content through Subgraph Semantic Annotation...</i>	<i>285</i>
<i>51. Employees Turnover Rate with Pivoted Length Normalization...</i>	<i>290</i>
<i>52. Controlling the Pandemic of COVID-19 based on Telecommunication Data...</i>	<i>294</i>