2022 First International **Conference on Computer Communications and Intelligent Systems (I3CIS 2022)**

Jijel, Algeria 22-23 November 2022



IEEE Catalog Number: CFP22CQ0-POD ISBN:

978-1-6654-6189-4

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:
 CFP22CQ0-POD

 ISBN (Print-On-Demand):
 978-1-6654-6189-4

 ISBN (Online):
 978-1-6654-6188-7

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 Web: www.proceedings.com



Contents

Committees	IV V
Authors' Index	vi
Modeling and Solving a Bus University Routing Problem Lahna IDRES, Sofiane ZIANI	1
Secure Multidimensional Data Aggregation in IoT-Fog environments using ECIES Mehdi Madjid ABBAS, Omar Rafik Merad-Boudia, Sidahmed Gasmi	7
Recognition of Tifinagh characters using Extreme Learning Machine Kemiche Mokrane, Sadou Malika, Ghoul-Bousba Nassima	13
Secure Smart Home Access Control System Using Blockchain Technology Bettahar Maroua Hadjer, Louzani Ahmed, Sekhri Larbi	19
An uncertainty-aware Road Anomalies Detection Based on Dempster-Shafer Theory Noureddine CHIBANI, Faouzi SEBBAK, Walid CHERIFI, Mustapha Reda SENOUCI, Samir OUCHANI	25
A new hybrid method based on bias-correction fuzzy c means and histogram of oriented gradient for Alzheimer dea detection Meriem Saim, Amel Feroui	31
A Comprehensive Study of Federated Learning Schemes for the Artificial Intelligence of Things Mohamed Amine Kouda, Badis Djamaa, Ali Yachir	37
Dirichlet Dempster-Shafer fusion system for multidimensional data classification Houdaifa Boukersoul, Faouzi Sebbak, Ahmed Habbouchi	43
Human Action Recognition and Coding Based on Skeleton Data for Visually Impaired and Blind People Aid System Leyla Benhamida, Slimane Larabi	49
PAV-MACRIS: a Protocol Assisted VANETs for Managing UAV Cloud services for mobile users in UAV Cloud Sarra Djeradi, Nasreddine Lagraa, Tahar Bendouma	55
Unsupervised K-means for Energy Conservation in IoT Networks Malha Merah, Zibouda Aliouat	61
A Clustering Study For The Optimization of Emotional Information Retrieval Systems: DBSCAN vs K-means Islam SADAT, Samir KECHID	67
Detection And Localization Of Arabic Text In Natural Scene Images Aissa Amrouche	72
On the Outage Performance of Drones-Aided Cooperative D2D communications systems Widad Belaoura, Khalida Ghanem, Muhammad Zeeshan Shakir	77

Semantic-Based Cognitive Service Discovery in Multi-Cloud Environments Linda OUCHAOU, Hassina NACER, François CHAROY	82
Robust Perceptual Hashing For Fingerprint Template Protection Wafa Birouk, Atidel Lahoulou, Ali Melit, Ahmed Bouridane	88
Application of MDE in the Development of IoT Systems: A Simulation-Based Approach Abdelouahab Fortas, Elhillali Kerkouche, Allaoua Chaoui	93
Link Quality Estimation in 6TiSCH Networks: A Review Abdeldjalil Tabouche, Badis Djamaa, Mustapha Reda Senouci	99
Identification of chicken eimeria species using deep learning approaches Chaouki Boufenar, Samir Djamai, Dihia Mezghiche, Lina Soudani	105
Privacy preserving fingerprint authentication based on homomorphic encryption and Blockchain Yousra Ali Zouaghi, Meriama Mahamdioua, Atidel Lahoulou	111
CNN-Based Demodulation of Color Shift Keying in Screen Camera Communications Alex Cartagena Gordillo	117
Predicion-based congestion avoidance MAC protocol for IoV (PCA-MAC)	123
A Bio-inspired Energy-Efficient Routing Protocol based on Penguins Search Optimization for FANETs Abdesselem Beghriche, Akram KOUT, Amina Abed	128