

2023 6th International Conference on Engineering Technology and its Applications (IICETA 2023)

**Al-Najaf, Iraq
15 – 16 July 2023**



**IEEE Catalog Number: CFP23P65-POD
ISBN: 979-8-3503-0334-6**

**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:	CFP23P65-POD
ISBN (Print-On-Demand):	979-8-3503-0334-6
ISBN (Online):	979-8-3503-0333-9
ISSN:	2831-7521

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

CURRAN ASSOCIATES INC.
proceedings
.com

6th International Iraqi Conference on Engineering Technology and its Applications (IICETA-2023), Islamic University, AL-Najaf, Iraq

Table of Contents

No.	Title of Papers	Authors Name	Page No.
1.	A 5G NB-IoT Framework for Secure Transmission and Intelligent Demand-Side Data Analysis in Smart Grids	Abdulmajeed Sulaiman;	1-7
2.	A Lightweight Encryption Model Tailored to Medical Information Security	Zamen latef naser; Ali S. Abosinnee; Mohammed Khodayer Hassan Al Dulaimi; Zain Jaffer; Ahmed Alkhayyat; Ghazi Mohamad RAMADAN;	8-14
3.	A Novel Shark Smell Optimization with Paillier Homomorphic Encryption Based Steganography Technique for Cloud Security	Mohammed Ayad Alkhafaji; S. Abdul Ameer; Ahmed Hussien alawadi; Haider Sharif;	15-21
4.	A Proposed Cryptography Key Management in Software-Defined Networking (SDN)	Huda AL-Hamdani; Wesam S. Bhaya;	22-28
5.	A Safeguard and Safety in E-Health Records: A Committed Clinch	Mazin Riyadh AL-Hameed; Waleed H. Madhloom; A. H. A. Hussein; Manar Hussan; Muntather Almusawi; E. Ali Mohammed;	29-33
6.	A Simple Method for Characterization Supercapacitor using Constant Current Charging	NNS Nordin; M I Fahmi; H. F. Liew; M A Jabbar; W. A. Mustafa; Ahmed Alkhayyat;	34-38
7.	A study of coding learning amongst children: motivation and learning performance	Hafizul Fahri Hanafi; Wan Azani Mustafa; Noor Hidayah Che Lah; Miharaini Md Ghani; Firas Al-Dolaimy; Ahmed Alkhayyat; Mohd Noor Idris; Wong Yoke Seng;	39-43

8.	African Vulture Optimization with Deep Learning Based COVID-19 Fake News Detection Model	Karrar Ibrahim; Z. Abed; Mohammed Ayad Alkhafaji; Ahmed Hussien alawadi; Shaid Sheel;	44-50
9.	AI in Changing the Way People Engage and Communicate in Media: A Review	Miharaini Md Ghani; Wan Azani Mustafa; Hafizul Fahri Hanafi; Noor Hidayah Che Lah; Firas Al-Dolaimy; Ahmed Alkhayyat;	51-56
10.	AI-Based Applied Science for Detection of Land Suitability in Agriculture	A. H. A. Hussein; Waleed H. Madhloom; Mohammed Brayyich; Manar Hussan; Aboothar mahmood shakir; E. Ali Mohammed;	57-60
11.	AI-Based Risk Monitoring in COVID Cases After Lockdown	G. Mohammed; Mohammed Brayyich; Waleed H. Madhloom; Mustafa abdulsattar jebur; Manar Hussan; Aboothar mahmood shakir;	61-66
12.	An Overview of drones communication, application and Challenge in 5G Network	Ihab Almaameri; László Blázovics;	67-73
13.	Analysis of Dual-way Converter using Modified H-bridge Circuit	N. Redzuan; Nadia Anuar; Z. Muhammad; W. A. Mustafa; F. F. Mohammed; Ahmed Alkhayyat;	74-77
14.	Artificial Intelligence Based Robust Clinical Data Classification for Intradialytic Hypotension Diagnosis	Ibraheem Hatem Mohammed; Mohammed Kadhim Obaid; Maysam Reyad Hadi; Laith H. Alzubaidi; Aymen Mohammed; Ahmed R. Hassan;	78-84
15.	Artificial Intelligence Enabled Scale Invariant Object Detection and Tracking Model on Color Images	Hanaa Ali Abed; Hassan M. Al-Jawahry; Samer Saeed Issa; Safa Majed; Sahar R. Abdul Kadeem; Abbas Hameed Abdul Hussein;	85-91
16.	Artificial Intelligence in Medicine for Advance Treatment: A Survey	Ammar H. Shnawa; M. R. Hadi;	92-95

		Mustafa abdulsattar jebur; Myasar Mundher adnan; Waleed Hameed; G. Mohammed;	
17.	Atomic Orbital Search Enabled Delay Aware Resource Allocation Scheme for 5G Heterogeneous Environment	Hafidh I. Al_Sadi; Nahlah M.A.M.Najm; Waleed Hadi Madhloom Kurdi; Waleed Khalid Alazzai; Hawraa Ali Sabah; Laith H. Alzubaidi;	96-102
18.	Automated Classification of Skin Lesions Using Different Classifiers	Joman Al-Tawalbeh; Baraa Alshargawi; Maya Al-DaraghmeH; Hiam Alquran; Wan Azani Mustafa; Firas Al-Dolaimy; Ahmed Alkhayyat;	103-107
19.	Automated Heart Diseases Detection Using Machine Learning Approach	Rand Abedelillah Aburayya; Rahaf Ahmed Alomar; Dana Khalid Alnajjar; Sema Athamnah; Hiam Alquran; Wan Azani Mustafa; Firas Al-Dolaimy; Ahmed Alkhayyat;	108-114
20.	Automated Modulation Classification of Communication Signals Using Hybrid Deep Learning	Hanaa Ali Abed; Samer Saeed Issa; Sahar R. Abdul Kadeem; Safa Majed; Abbas Hameed Abdul Hussein; Hassan M. Al-Jawahry;	115-121
21.	Automated Osteosarcoma Detection and Classification Using Advanced Deep Learning with Remora Optimization Algorithm	Mohammed Kadhim Obaid; Hanaa Ali Abed; Salima Baji Abdullah; Hassan M. Al-Jawahry; Safa Majed; Ahmed R. Hassan;	122-128
22.	Automated Routine Colon Cancer Nuclei Classification Using Black Widow Optimization with Deep Learning Model	Karrar Ibrahim; Z. Abed; Mohammed Ayad Alkhafaji; Ahmed Hussien alawadi; Shaid Sheel;	129-135
23.	Automated Wood and Leaf Classification Using Coyote Optimization with Deep Learning	Z. Abed; Mohammed Ayad Alkhafaji; Karrar Ibrahim; Ahmed Hussien alawadi;	136-142

	Model for Terrestrial LiDAR Point Clouds	Shaid Sheel;	
24.	Automatic Vehicle License Plate Recognition Using Lightweight Deep Learning Approach	Ali Hussein Abdulkhaleq; Ammar Wisam. Altaher; Aymen Saad; Hassan M. Al-Jawahry;	143-148
25.	Avoidance of Scalability Problem in Recommendation System Using Filtering Approach	M. R. Hadi; Ammar H. Shnawa; Mustafa abdulsattar jebur; Myasar Mundher adnan; G. Mohammed; Waleed Hameed;	149-153
26.	Blockchain implementation in smart grids	Mohammed Abdulkreem Mohammed;	154-159
27.	Characteristic Study of Supercapacitor's Discharging Process base on BLDC motor	Azri A. Aziz; M. Saifizi Saidon; M. Izuan Fahmi; Siti Marhainis Othman; Wan Azani Mustafa; Firas Al-Dolaimy; Ahmed Alkhayyat;	160-166
28.	Chimp Optimization Algorithm Based Feature Selection with Machine Learning for Medical Data Classification	Ali S. Abosinnee; Samer Saeed Issa; Ahmed Alkhayyat; Zamen latef naser; Zain Jaffer; Ghazi Mohamad RAMADAN;	167-173
29.	Comparison between Parameter Estimation for the Beta Distribution	Mujtaba Zuhair Ali; Ahmed A.H. Alkhalidi; Ahmed Hadi Hussain;	174-179
30.	Computational Intelligence Driven Secure Unmanned Aerial Vehicle Image Classification in Smart City Environment	Hanaa Ali Abed; Abbas Hameed Abdul Hussein; Samer Saeed Issa; Sahar R. Abdul Kadeem; Safa Majed; Hassan M. Al-Jawahry;	180-186
31.	Computer Vision Based Face Mask Recognition in Religious Mass Gatherings and COVID-19 Infection	Hussein Ali Rasool; basma mohammed Khaleel; Zainab abed Almoussawi; Raed Khalid; Kassem AL-Attabi; Zahraa N.Abdulhussain;	187-193
32.	Congestion Aware Effective Routing Protocol for Vehicular Adhoc Networks (VANETs)	Aymen Mohammed Khodayer Al-Dulaimi; Qaysar Salih Mahdi; Ahmed H. R. Alkhayyat;	194-199

		Fatima H. Alsalamy; Nejood Faisal;	
33.	Context and Traffic Aware Improved Geographical Routing Protocol for Vehicular Adhoc Networks	Kareem A. M. Al-sharhane; Qaysar Salih Mahdi; Ahmed H. R. Alkhayyat; Fatima H. Alsalamy; Nejood F. Abdulsattar;	200-205
34.	Cost and Energy Aware Resource Scheduling Model for Road Side Units in Vehicular Adhoc Networks	Aymen Al-Dulaimi; Qaysar Salih Mahdi; Ahmed H. R. Alkhayyat; F. H. Abbas; Nejood Alkhazraji;	206-211
35.	Counting Non-Overlapping Abnormal Cervical Cells in Whole Slide Images	Alaa Badarneh; Ala'a Alzuet; Wan Azani Mustafa; Hiam Alquran; Mohammed Alsaltie; F. F. Mohammed; Ahmed Alkhayyat;	212-215
36.	COVID-19 Cough Classification Models Based on Machine Learning: A Comparative Analysis	Mohammed Abdulkreem Mohammed;	216-221
37.	Data Protection between IoT devices and Cloud Computing: Using PRINCE Lightweight Algorithm	Anaam Ghanim Hilal; Mehdi Ebady Manaa;	222-227
38.	Decision Making Strategy for COVID-19 Risk Minimization Using Data-Driven Model	Ali Zeinulabdeen Abdulrazzaq;	228-231
39.	Deep Learning Assisted Intrusion Detection with Crop Type Classification Using IoT Remote Sensing Images for Secure Sustainable Agriculture	A. H. A. Hussein; Mazin Riyadh AL-Hameed; Hussein A. Al-luhiby; E. Ali Mohammed; Aboothar mahmood shakir; Munqith Saleem;	232-238
40.	Deep Learning Based Automated Gait Recognition for Robust Person Reidentification	A. Sahib Oleiwi; Mahdi abdukhudur Alkhafaj; Eyhab Ali; Munqith Saleem; Mohammed I. Habelalmateen; Rabei Raad Ali;	239-244
41.	Deep Reinforcement Learning for Wind-power: An overview	Bashar Mahmood Ali;	245-251
42.	Deer Hunting Optimization with Path Augmented RetinaNet Model for Scale-Invariant Object Detection and Tracking	Maysam Reyad Hadi; Ahmed R. Hassan; Mohammed Kadhim Obaid; Salima Baji Abdullah;	252-258

		Aymen Mohammed; Hassan M. Al-Jawahry;	
43.	Delay and Mobility Aware Effective Cross Layer Approach for Vehicular Adhoc Network	Aymen Al-Dulaimi; Nejood Alkhazraji; Ahmed H. R. Alkhayyat; F. H. Abbas; Nidhal Abd Mohammed;	259-264
44.	Delay and Reliability Aware Optimal Communication in Intelligent Vehicular Adhoc Network (VANETs)	Kareem A. M. Al-sharhane;e; Nejood F. Abdulsattar; Ali Hamzah Najim; Fatima H. Alsalamy; Ahmed H. R. Alkhayyat;	265-270
45.	Design and implantation of Non-linear Digital Predistorter for High Power Amplifier	Ali S. Abosinnee; Zahraa N. Abdulhussain; Mohammad Essa; Tabark Ahmed Imran; Hassan M. Al-Jawahry;	271-274
46.	Design and implementation of a training board for basic gates using switches; diodes; transistors; and integrated circuits	Basim abdukkareem Farhan; Lubna Emad Kadhim; Nawar Banwan Hassan; Abbas Khalifa Nawar;	275-279
47.	Design Methodology of Inductive Power Links for Implantable Medical Devices Applications	Muammer M. Omran; C. Ghobadi; Javad Nourinia;	280-286
48.	Design of Hyperparameter Tuned Deep Reinforcement Learning Based Prediction Model for Financial Crisis	Mohammed Ayad Alkhafaji; S. Abdul Ameer; Ahmed Hussien alawadi; Haider Sharif;	287-293
49.	Design of Rider Invasive Weed Optimization Algorithm for Unmanned Aerial Vehicle Path Planning	Mahdi abdukkhudur Alkhafajj; Hussein Ali Rasool; Nada Adnan Taher; Zahraa N. Abdulhussain; Muntather Almusawi; Mustafa Al-Tahee;	294-300
50.	Determine The Levels of Importance of Units In The Reliability Network	Noor Sabah Hassan; Zahir Al-Khafaji;	301-305
51.	Digital Predistorter Model for High power Amplifier For Nonlinearity challenges	Mohammed Abomaali;	306-312
52.	Distributed cache performance improvement Middleware session	Mohammad Essa; Hawraa Ali Sabah; Ali S. Abosinnee; Tabark Ahmed Imran; Hassan M. Al-Jawahry;	313-317
53.	Effect of Coarse plastic waste aggregates on the performance of	Khawla Abbas Farhan; Alaa J. Naji;	318-323

	concrete-filled steel tube columns and their life cycle assessment	H. M. Al-Jelawy; Al-Brees Roaa Hilimi Kadhim;	
54.	Effective Neighbor Discovery based Routing in Emergency Vehicular Ad-Hoc Network (VANETs)	Aymen Mohammed Khodayer Al-Dulaimi; Qaysar Salih Mahdi; Ahmed H. R. Alkhayyat; F. H. Abbas; Ali Abbas Alsalamy;	324-329
55.	Effective Routing and Spectrum Sensing in Energy Efficient Cognitive Radio based Vehicular Ad-Hoc Network	Aymen Mohammed; Qaysar Salih Mahdi; Nujod Alkhazraji; Ahmed H. Alkhayyat; Fatima H.Abbas;	330-335
56.	Effectiveness of Micro Silica as Modifiers in Stone Mastic Asphalt Mixture	Haneen Fadhil; Harith K K Ajam;	336-341
57.	Enactment of KNN in Brain Tumor Recognition: A Censorious Explication	A. H. A. Hussein; Mazin Riyadh AL-Hameed; Hussein A. Al-luhiby; E. Ali Mohammed; Aboothar mahmood shakir; Munqith Saleem;	342-345
58.	Energy Aware Emergency Packets Dissemination and Effective Trusted RSU Distribution in Vehicular Adhoc Networks	Kareem Ali Malalah Al-sharhane;e; Nejood F. Abdulsattar; Ali Hamzah Najim; Ahmed H. R. Alkhayyat; Fatima H. Alsalamy;	346-351
59.	Energy based Stable Multi-hop Leader Selection for Effective Communication in Vehicular Ad-Hoc Networks	Kareem Ali Malalah Al-sharhane;e; Ali Hamzah Najim; Nujod Alkhazraji; Fatima H.Abbas; Ahmed H. Alkhayyat;	352-357
60.	Energy Efficiency Multi-Target Detection in Wireless Sensor Networks via Compressed sensing	Marwah Dhahir; Ahmed Al Hilli;	358-362
61.	Energy losses of proposed grid-connected pv system in iraq	Amer saad abbas; Ali Nasser Hussain; Abdulrahman Th. mohammad;	363-367
62.	Enhanced QoS Performance with Throughput Aware Effective Communication in VANETs	Aymen Mohammed Khodayer Al-Dulaimi; Nejood Alkhazraji; Sabah Mohammed Mlket Almutoki;	368-373

		Ahmed H. R. Alkhayyat; F. H. Abbas;	
63.	EOG Based Eye Movements and Blinks Classification using Irisgram and CNN-SVM Classifier	Ala'a Zyout; Obaidah Alquraan; Mohammed Alsalatie; Hiam Alquran; Ali Mohammad Alqudah; Wan Azani Mustafa; F. F. Mohammed; Ahmed Alkhayyat;	374-377
64.	Estimation of Camera Parameters via Gray Wolf Optimization Algorithm	Firas Abedi; Mohammad Essa; Ali S. Abosinnee; Adeil Abbas Alwan; Mohanned Adnan; Hassan M. Al-Jawahry;	378-382
65.	Experimental Analysis for Energy Aware Effective Multi Hop Routing in Vehicular Adhoc Networks	Kareem A. M. Al-sharhane;e; Qaysar Salih Mahdi; Ahmed H. R. Alkhayyat; Fatima H. Alsalamy; Nejood F. Abdulsattar;	383-388
66.	Experimental Demonstration for Energy Aware Optimization with Effective Neighbor and Link Selection in Vehicular Adhoc Networks	Aymen Al-Dulaimi; Nejood Alkhazraji; F. H. Abbas; Ahmed H. R. Alkhayyat; Hassan Hassoon ALDelfi;	389-394
67.	Exploiting COVID-19 Tweets for Sentiment Analysis Using Chameleon Optimization with Ensemble Learning	Mahdi abdukhudur Alkhafajj; Rabei Raad Ali; Hussein A. Al-luhiby; Munqith Saleem; Eyhab Ali; Mohammed I. Habelalmateen;	395-401
68.	Eye Diseases Classification Based on Hybrid Feature Extraction Methods	Salman Abd Kadum; Fallah H. Najjar; Hassan M. Al-Jawahry; Farhan Mohamed;	402-407
69.	Fog-based Resource Allocation Hybrid Approach using Metaheuristic for Mobile Networks	Zahraa Husam Ebrahim; Mehdi Ebady Manaa;	408-413
70.	Forecasting of Long-Range Electrical Loads in Najaf Province Using Markov Model	Atika Hassan Abdulmunem; Zahir Al-Khafaji;	414-419
71.	Fruit Fly Optimization with Hybrid Deep Learning Based Sentiment Analysis During COVID-19 Pandemic	Mohammed Khodayer Hassan Al Dulaimi; Ali S. Abosinnee; Ahmed Alkhayyat;	420-426

		Ghazi Mohamad RAMADAN; Zamen latef naser; Zain Jaffer;	
72.	Golden Tortoise Beetle Optimizer with Deep Learning Based Emotion Detection in Social Media	Nada Adnan Taher; Hussein Ali Rasool; Zahraa N.Abdulhussain; Muntather Almusawi; Raed Khalid; Zainab abed Almoussawi;	427-433
73.	Handwriting Arabic Words Recognition in KHATT Dataset Based on Faster R-CNN	May Mowaffaq AL-Tae; Sonia Ben Hassen Neji; Mondher FRIKHA;	434-439
74.	Heap Based Optimization with Deep Learning Based Energy Forecasting in Smart Grid with Consideration of Demand Response	Zainab abed Almoussawi; basma mohammed Khaleel; Waleed Hadi Madhloom Kurdi; Kassem AL-Attabi; Hawraa Ali Sabah; Waleed Khalid Alazzai;	440-446
75.	Heart Arrhythmia Classification Using Deep Learning: A Comparative Study	Omar Radi; Mohammad Alslatie; Wan Azani Mustafa; Hiam Alquran; Alaa Badarneh; F. F. Mohammed; Ahmed Alkhayyat;	447-451
76.	Honey Badger Algorithm with Voting Ensemble Based Computational Linguistics Enabled YouTube Video Popularity Prediction	Mohammed Kadhim Obaid; Hanaa Ali Abed; Salima Baji Abdullah; Hassan M. Al-Jawahry; Aymen Mohammed; Ahmed R. Hassan;	452-458
77.	Human Activity Recognition by BiLSTM Recurrent Neural Networks and Support Vector Machine	Ameer Ali Ridha; Ihab Almaameri; László Blázovics; Haider Alabdeli;	459-465
78.	Hybrid Deep Learning Enabled Load Prediction for Energy Storage Systems	Ghazi Mohamad RAMADAN; Ali S. Abosinnee; Mohammed Khodayer Hassan Al Dulaimi; Zain Jaffer; Ahmed Alkhayyat; Zamen latef naser;	466-472
79.	Hybrid Metaheuristics with Sparse-Trained Deep Learning for Sustainable Electric Vehicle Charging Demand Forecasting	Mahdi abdukhudur Alkhafaj; Hussein A. Al-luhiby; Mazin Riyadh AL-Hameed; Munqith Saleem;	473-479

		Mohammed I. Habelalmateen; E. Ali Mohammed;	
80.	Image Dataset for Cervical Cell Diagnosis – A Review	Nur Ain Alias; Wan Azani Mustafa; Mohd Aminuddin Jamlos; Hiam Alquran; Miharaini Md Ghani; Hafizul Fahri Hanafi; Noor Hidayah Che Lah; Shahrina Ismail; F. F. Mohammed; Ahmed Alkhayyat;	480-484
81.	Image Enhancement Using HSV Color Space, DWT, and BiHE Techniques	Tameem Hameed Obaida; Salman Abd Kadum; Fallah H. Najjar; Hassan M. Al-Jawahry;	485-490
82.	Image Steganography Based on Pixel Topology and Threshold on Selected Pixels Differences	Qusai AL-Durrah; Tawfiq A. AL-Assadi;	491-496
83.	Implementation of High Gain DC/DC Boost Converter	Z. W. Zulkifli; N. Redzuan; Z. Muhammad; W. A. Mustafa; F. F. Mohammed; Ahmed Alkhayyat;	497-501
84.	Improved Arithmetic Optimization with Deep Learning Driven Contactless Biometric Verification on Iris Images	Kassem AL-Attabi; Zainab abed Almoussawi; Hussein Ali Rasool; Nada Adnan Taher; Raed Khalid; Zahraa N.Abdulhussain;	502-508
85.	Improved Coot Optimization Algorithm Based Energy Aware Multi-Hop Routing Protocol for Vehicular Adhoc Networks	Z. Abed; Ammar H. Shnawa; Shaid Sheel; Myasar Mundher adnan; Karrar Ibrahim;	509-515
86.	Improved Deep Learning with Metaheuristics Driven COVID-19 Diagnosis on Chest X-Ray Images	Mahdi abdulkhudur Alkhafaj; A. Sahib Oleiwi; Rabei Raad Ali; Eyhab Ali; Mustafa Al-Tahee; Muntather Almusawi;	516-522
87.	Improved Qubit Neural Network Based Computer Aided Detection Model for COVID-19 on Chest Radiographs	Waleed Hadi Madhloom Kurdi; Zainab abed Almoussawi; basma mohammed Khaleel; Zahraa N.Abdulhussain;	523-529

		Kassem AL-Attabi; Raed Khalid Medical;	
88.	Improving the Transferring the Files in Cloud by Using Vogel's Approximation Method	Hawraa Mahdi Salih; Mahdi S. Almhanna;	530-534
89.	InfraRed Spectroscopy Monitoring in Agri-Food 4.0 with Remote Sensing Surveillance	G. Mohammed; Mohammed Brayyich; Waleed H. Madhloom; Mustafa abdulsattar jebur; Manar Hussan; Aboothar mahmood shakir;	535-539
90.	Innovative Way to Evaluate the reliability and Importance of Complex - Series Networks	Asia Malik Mohammed; Zahir Al-Khafaji;	540-544
91.	Insulators used in Outdoor Power Applications: Materials and Coatings	Suhaib Al-Karawi; Aws Al-Taie;	545-551
92.	Integrated Design of Artificial Neural Network with Bald Eagle Search Optimization for Osteosarcoma Classification	Maysam Reyad Hadi; Ahmed R. Hassan; Ibraheem Hatem Mohammed; Waleed Khalid Alazzai; Laith H. Alzubaidi; Hafidh I. AI_Sadi;	552-558
93.	Integrating Haar Wavelet Transform and Image Processing for Accurate Fire Detection	Ali Ihsan Alattar; Ammar Wisam. Altaher; Aymen Saad; Hassan M. Al-Jawahry;	559-563
94.	Intelligent Humming Bird Optimization Based Distance Aware Routing Scheme for Vehicular Networks	Z. Abed; Ammar H. Shnawa; Shaid Sheel; Ahmed Hussien alawadi; Karrar Ibrahim;	564-570
95.	IoT System of medical equipment monitoring and ambulance tracking	Mohammed Abdulmahdi Mohammedali; Ameer H Ali; Laith Ali Abdul-Rahaim; Ahmed T. Alhasani;	571-574
96.	Leveraging Enhanced Bald Eagle Search Optimization for Energy-Aware Clustering in Wireless Sensor Networks	Hawraa Ali Sabah; Hafidh I. AI_Sadi; Waleed Hadi Madhloom Kurdi; Nahlah M.A.M.Najm; Waleed Khalid Alazzai; Laith H. Alzubaidi;	575-581
97.	Leveraging Surface Electromyography for Accurate Low Back Pain Classification Using Hybrid Deep Learning	Mohammed Kadhim Obaid; Ahmed R. Hassan; Maysam Reyad Hadi;	582-588

		Ibraheem Hatem Mohammed; Aymen Mohammed; Hassan M. Al-Jawahry;	
98.	Load Predictions in Electrical Energy Network: Current Knowledge and Future Directions using machine learning	Bashar Mahmood Ali;	589-595
99.	Low Area FPGA Implementation of Hyperbolic Tangent Function	Rawasee K. Yousif; Ivan A. Hashim; Bassam H. Abd;	596-602
100.	Low-Cost Smart Learning with Moodle-Based Raspberry Pi 4 for University Students	Abbas M. Ali Al-muqarm; Yousif Mudhafar; Aboothar Mahmood Shakir; Murtada Kazem; Ruqaya Abdel-Yahiya; Baqer Saad Abdul Zahra;	603-608
101.	Machine Learning Techniques to Classify Brain Tumor	Teiba M. Bahya; Nashwan. Hussein;	609-614
102.	Methodology for the design and programming methods for a smart home	Zainab Hussam Al-Araji; Sarah M. Mutar;	615-618
103.	Mobile Tourism Recommender System for Users to Get a Better Choice of Tour	Mohammed Brayyich; A. H. A. Hussein; Waleed H. Madhloom; Mustafa abdulsattar jebur; Manar Hussan; Aboothar mahmood shakir;	619-622
104.	Mobility based Improved Q-Learning Approach for RPL Routing Based Vehicular Adhoc Networks	Sabah Mohammed Milkat al Mutoki; Kareem Al-sharhane;e; Nejood Faisal; Ahmed Alkhayyat; Fatima Hashim Abbas;	623-628
105.	Modeling of Metaheuristics with Deep Transfer Learning Based Visual Data Mining for the Healthcare Sector	Z. Abed; Ammar H. Shnawa; M. R. Hadi; Karrar Ibrahim; Myasar Mundher adnan; Waleed Hameed;	629-635
106.	Modernizing The Shopping Experience: The Smart Shopping Cart	Aboothar Mahmood Shakir; Yousif Mudhafar; Abbas M. Ali Al-muqarm;	636-640
107.	Modified Snake Optimization Based Robust Steganography with Chaotic Encryption Scheme for Remote Sensing Imagery	Hussein A. Al-luhiby; Mahdi abdukhudur Alkhafaj; Eyhab Ali; Munqith Saleem;	641-647

		Rabei Raad Ali; Mohammed I. Habelalmateen;	
108.	Multi-Level Trust Evaluation Models with Emergency Message Dissemination for connected Vehicle Ad hoc Networks	Kareem Al-sharhane; Nejoood Faisal; Qaysar Salih Mahdi; Ahmed Alkhayyat; Fatima Hashim Abbas;	648-653
109.	Neuromorphic Computing: Unraveling the Physical Properties of Brain-Inspired Systems	G. Mohammed; Waleed H. Madhloom; Mustafa abdulsattar jebur; Mohammed Brayyich; Myasar Mundher adnan; Waleed Hameed;	654-658
110.	Novel Approach to Obtain Minimum Path/Cut Sets for Complex -Series Networks	Asia Malik Mohammed; Zahir Al-Khafaji;	659-664
111.	Nucleus Detection Using Deep Learning Approach on Pap Smear Images	Hiam Alquran; Wan Azani Mustafa; F. F. Mohammed; Ahmed Alkhayyat;	665-668
112.	On Compatible Mappings and Common Coupled Coincidence Fixed Point Results in partially Ordered D^* -Metric Spaces	Thamer Nouri Oklah; Alaa.M. F.Al-Jumaili;	669-674
113.	Optimal Deep Transfer Learning-Based Road Extraction for Intelligent Transportation Systems Using High-Resolution Remote Sensing Imagery	Hafidh I. Al_Sadi; Hawraa Ali Sabah; Waleed Hadi Madhloom Kurdi; Nahlah M.A.M.Najm; Waleed Khalid Alazzai; Laith H. Alzubaidi;	675-681
114.	Optimal DNA Encoding with Secret Sharing Scheme for Medical Image Encryption	A. H. A. Hussein; Mazin Riyadh AL-Hameed; Hussein A. Al-luhiby; E. Ali Mohammed; Mohammed I. Habelalmateen; Munqith Saleem;	682-688
115.	Optimal Elman Neural Network for Pancreatic Cancer Classification Using Computed Tomography Images	Ammar H. Shnawa; G. Mohammed; M. R. Hadi; Karrar Ibrahim; Myasar Mundher adnan; Waleed Hameed;	689-695
116.	Optimization of Corona Rings Parameters for 765kV and 500kV Polymer Insulators	Yousif Kareem Jtheat; Ahmed J. Sultan; Mehdi F. Bonneya;	696-700

117.	Parameter Tuned Extreme Gradient Boosting Model for Industrial Threat Detection	Samer Saeed Issa; Ahmed Alkhayyat; Ali S. Abosinnee; Sahar R. Abdul Kadeem; Zain Jaffer; Abbas Hameed Abdul Hussein;	701-707
118.	Performance Evaluation of Beamforming Array Antennas Based on Partial Update LMS and NLMS Adaptive Algorithms	Zahraa A. Shubber; Thamer M Jamel; Ali K. Nahar;	708-713
119.	Performance Evaluation of Effective Cluster Head Selection and Maintenance for LTE based Vehicular Ad-Hoc Networks	Aymen Mohammed khodayer; Ali Hamzah Najim; Nujod Alkhazraji; Ahmed H. Alkhayyat; Fatima H.Abbas;	714-719
120.	Performance Evaluation of Improved Mobility Aware FSR Routing Protocol in Vehicular Ad-Hoc Networks	Sabah Mohammed Milkat al Mutoki; Kareem Al-sharhane ; Ahmed H. Alkhayyat; Fatima H.Abbas; Nujod Alkhazraji;	720-725
121.	Planet Optimization with Machine Learning Enabled Power Usage Forecasting Modeling in Smart Grid Environment	Kassem AL-Attabi; Zainab abed Almoussawi; Waleed Hadi Madhloom Kurdi; basma mohammed Khaleel; Hawraa Ali Sabah; Waleed Khalid Alazzai;	726-732
122.	Political Optimizer Based Robust Energy Aware Clustering Scheme for Flying Ad Hoc Networks	Kassem AL-Attabi; Hussein Ali Rasool; Zainab abed Almoussawi; basma mohammed Khaleel; Zahraa N.Abdulhussain; Raed Khalid;	733-739
123.	Prevention and Detection Attack of Social Media Networks Using Machine Learning Methods	Karrar Sadiq Mohsen; Wesam Sameer Bhaya;	740-745
124.	Probabilistic Neural Network Based Visual Data Mining for Healthcare Sector	Ali S. Abosinnee; Samer Saeed Issa; Ahmed Alkhayyat; Zamen latef naser; Ghazi Mohamad RAMADAN; Zain Jaffer;	746-752
125.	Quantum Chameleon Swarm with Fuzzy Decision Making Tool for Financial Risk Management	Mohammed Ayad Alkhafaji; S. Abdul Ameer; Ahmed Hussien alawadi; Haider Sharif;	753-759

126.	Rapid Deployment and QoS Provisioning in Coverage based Multiple UAV Enabled Emergency Communication Networks	Sabah Mohammed Milkat al Mutoki; Aymen Mohammed ; Nejood Faisal; Ahmed Alkhayyat; Fatima Hashim Abbas;	760-765
127.	Red Colobuses Monkey with Deep Recurrent Neural Network Based Gender Classification on Health Web Forum Data	Maysam Reyad Hadi; Nahlah M.A.M.Najm; Hawraa Ali Sabah; Waleed Khalid Alazzai; Laith H. Alzubaidi; Hafidh I. Al_Sadi;	766-772
128.	Reliable Multipath Loss Aware Design for effective routing in Flying Ad-Hoc	Kareem Al-sharhane;e; Nejood Faisal; Qaysar Salih Mahdi; Fatima Hashim Abbas; Ahmed Alkhayyat;	773-778
129.	Review : Adaptive mobile learning algorithms Current state-of-the-art	Ammar Wisam. Altaher; Hassan M. Al-Jawahry;	779-783
130.	Review The Causes of Erosion in Hydraulic Structures and The Methods for Various Tests	Mohammed Q. Abbas; Ali N. Hilo; Thaar S. Al-Gasham;	784-789
131.	Robust Content Authentication and Tampering Detection of Arabic Text Transmitted Through Internet	A. Sahib Oleiwi; Mahdi abdukhudur Alkhafaj; Rabei Raad Ali; Eyhab Ali; Mustafa Al-Tahee; Muntather Almusawi;	790-796
132.	Roles and Challenge of Social Media in E-Commerce through Expert Review	Miharaini Md Ghani; Wan Azani Mustafa; Hafizul Fahri Hanafi; Noor Hidayah Che Lah; F. F. Mohammed; Ahmed Alkhayyat;	797-801
133.	Smart Cities' Narrowband IoT-Based Support Functions	Abdulmajeed Sulaiman;	802-806
134.	Smart Cyber Intrusion Detection System Using Hyperparameter Tuned Deep Learning with Feature Subset Selection Model	Maysam Reyad Hadi; Ahmed R. Hassan; Ibraheem Hatem Mohammed; Laith H. Alzubaidi; Mohammed Kadhim Obaid; Aymen Mohammed;	807-813
135.	Solar Energy Forecasting Techniques based on Machine Learning: Survey	Bashar Mahmood Ali;	814-819

136.	Solar Radiation estimation for Renewable Energy artificial intelligence	Bashar Mahmood Ali;	820-826
137.	Solving Bi-objective Reliability Optimization Problem of Mixed System by Firefly Algorithm	Fouad Hamza Abd Alsharify; Ghazi Abdullah; Audi Sabri Abd AL Razzak; Zahir Al-Khafaji;	827-830
138.	Some Methods of Finding Minimum Paths and the Importance of Reliability for a Complex System	Hayder Kareem Hammood; Zahir Al-Khafaji;	831-834
139.	Spiral Optimization Algorithm with Neurocomputing and Fuzzy Logic Based Human Gait Analysis for Osteoarthritis Prediction	Salima Baji Abdullah; Hanaa Ali Abed; Abbas Hameed Abdul Hussein; Sahar R. Abdul Kadeem; Safa Majed; Hassan M. Al-Jawahry;	835-841
140.	Strengthening of Unreinforced Masonry Walls by FRP Materials Exposed to In-plane Compression Loads	Hyder I.Habelalmateen; Saad Al-Wazni;	842-846
141.	Study of Machine Learning for Hand Gesture Recognition	Mohammed Abdulkreem Mohammed;	847-851
142.	Supremacy of Quantum Computation in Bioscience: A Technical Review	M. R. Hadi; G. Mohammed; Ammar H. Shnawa; Myasar Mundher adnan; Mustafa abdulstarr jebur; Waleed Hameed;	852-855
143.	Symbiotic Organism Search Optimization with Deep Learning Based Bite Mark Identification in Forensic Dentistry	Mahdi abdukhudur Alkhafaj; A. Sahib Oleiwi; Rabei Raad Ali; Eyhab Ali; Mustafa Al-Tahee; Muntather Almusawi;	856-862
144.	Traffic and Energy Aware Load Balancing Routing Protocol for Multipath Mobile Ad-hoc Networks	Aymen Mohammed; Qaysar Salih Mahdi; Ahmed Alkhayyat; Fatima Hashim Abbas; Nejood Faisal;	863-866
145.	Traffic and Speed Analysis with Effective Topology Selection using a Cross Layer Approach for Vehicular Adhoc Networks (VANETs)	Kareem Ali Malalah Al-sharhane; Qaysar Salih Mahdi; Nujod Alkhazraji; Ahmed H. Alkhayyat; Fatima H.Abbas;	867-872

146.	Using Markov Models And Fault Tree For Finding The Reliability Of Some Engineering Problems	Atika Hassan Abdulmunem; Zahir Al-Khafaji;	873-877
147.	Wild Horse Optimizer with Deep Learning Based Leukemia Diagnosis on Microscopic Blood Smear Images	Mahdi abdulkhudur Alkhafaij; Nada Adnan Taher; Hussein Ali Rasool; Zahraa N.Abdulhussain; Muntather Almusawi; Mustafa Al-Tahee;	878-884
148.	Wind energy prediction: Artificial intelligence perspective	Bashar Mahmood Ali;	885-891
149.	Bamboo Forest Growth Optimization with Deep Learning for Intrusion Detection in IoT-Assisted Wireless Sensor Networks	Mohammed Brayyich; A. H. A. Hussein; Waleed H. Madhloom; Mustafa abdulsattar jebur; Manar Hussan;	892-898