

# **2021 1st Babylon International Conference on Information Technology and Science (BICITS 2021)**

**Babil, Iraq  
28 – 29 April 2021**



**IEEE Catalog Number: CFP21Z47-POD  
ISBN: 978-1-6654-4692-1**

**Copyright © 2021 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:	CFP21Z47-POD
ISBN (Print-On-Demand):	978-1-6654-4692-1
ISBN (Online):	978-1-6654-1573-6

**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

## 1st. Babylon International Conference on Information Technology and Science 2021, (BICITS 2021), Babil, Iraq

### Table of content

No.	Title of Paper	Authors Name	Pages No.
1	Design of Ultra-Wideband Antenna with Band-Notched for Wireless Communications.	Ansam Q. Kamil; Ali K. Jassim	1- 4
2	Enhanced Twitter Community Detection Using Node Content and Attributes.	Hayder M. Alash; Ghaidaa A. Al-Sultany	5- 10
3	Design of Unit Cell for Metamaterials to Enhancement the Characteristic of the Microstrip Antenna.	Rasha M. Salih; Ali K. Jassim	11- 15
4	Machine Learning Based Diabetic Retinopathy Early Detection and Classification Systems- A survey.	Dathar A. Hasan; Subhi R.M. Zeebaree; Mohammed A. M.Sadeeq; Hanan M. Shukur; Rizgar R. Zebari; Ahmed H. Alkhayyat	16- 21
5	Conceptual Framework for The Role of Information Technology in Developing Acknowledge Management System.	Rageed H. Al-Hashemy	22- 26
6	Strength of the Verb Performance and the Degree of Clarity of the Arabic Words by Computer-Aided.	Zainb Hussain; Nidhal K. El Abbadi; Adel Abbas	27- 32
7	Speech Descrambling Based on Chaotic Parameter Estimation.	Duaa Abdulrida; Nidaa A. Abbas	33- 38
8	A Review for Sign Language Recognition Techniques.	Maha S. Altememe; Nidhal K. El Abbadi	39- 44
9	Driver Drowsiness Detection Techniques: A Survey.	Marwa K. Hussein; Tariq Salman; Abbas Miry; Mohammed A. Subhi	45- 51
10	Algebraic Decomposition Method Utilized in Optimized Zero Watermarking Technique.	Nada S. Mohammed; Areej M. Abduldaim	52- 57

11	Embedded System for Eye Blink Detection Using Machine Learning Technique	Bishar Ibrahim; Farhad Khalifa; Subhi Zeebaree; Nashwan Othman; Ahmed Alkhayyat; Rizgar R. Zebari; Mohammed A. M. Sadeeq	58- 62
12	Classification of Spam Emails Using Deep Learning	Nuha Marza; Mehdi E. Manaa; Hussein A. Lafta	63- 68
13	An Investigate on Moving Object Tracking and Detection in Images	Abbas S. B. Sadkhan; Talibian SeyedReza; Farzaneh Nazbanou	69- 75
14	Proposed Association Rules Mining Algorithm for Sensors Data Streams.	Waheed A. K. Salman; Sattar B. Sadkhan	76- 80
15	Review: Security Challenges and Cyber-Attacks for Internet of Things.	Rawaa M. Abdul-Hussein; Rana S. Mohammed; Ahmed H. Mohammed	81- 85
16	Gray Image Quantization Method Based on New Threshold Optimizing Technique.	Elaf A. Abbood; Tawfiq A. Al-Assadi	86- 91
17	Prediction of Global Solar Irradiation by Using Fuzzy Logic.	Shahad M. Al-kaissi ; Osama T. Al-Taai	92- 97
18	Utilizing LOD Relationships and FOAF Vocabularies for Top-N Recommender System.	Ahmed M. Mahdi; Asaad S. Hadi	98- 103
19	Design of SOI Slotted Ring Resonator for Add/Drop Multiplexing in All Optical Networks.	Riyadh Mansoor	104- 108
20	M-Ary QAM Classification Based on Skewness and Kurtosis.	Hadi A. Hamed; Ahmed K. Abdullah; Sattar B. Sadkhan; Ali A. Abdullah	109- 112
21	Survey: Clustering Techniques of Data Stream	Hussein Alkhamees; Nabeel Nabeel Al-A'araji; Eman S. Al-Shamery	113- 119
22	An Efficient Method for Stamps Verification Using Haar Wavelet Sub-Bands with Histogram and Moment.	Maha A. Rajab; Loay E. George	120- 126

23	An Analysis the Impact of Mobility on the Spread of the COVID-19 Pandemic.	Dhuha H. AL-Jubory; Eman S. Al-Shamery	127- 132
24	Implementation of 4x4 2D Mesh NoC Architecture Using FPGA.	Noor D. Majeed; Siraj Q. Mahdi; Maha A. Kadhim	133- 137
25	Combination of Graph Reduction and Tie-Set Techniques for Network Reliability Assessment.	Nazik Aljbur Musaria K. Mahmood; Indrit Myderrizi	138- 143
26	Decision-Making Approach in Cognitive Radio Using Tsukamoto and Mamdani FIS.	Akeel Bdrany; Sattar B. Sadkhan	144- 148
27	Cognitive Radio Network: Security and Reliability Trade-Off - Status, Challenges, and Future Trends	Doaa K. Jasim; Sattar B. Sadkhan	149- 153
28	A Neural Network Approach for Spectral and Energy Efficient Multiple Antenna Systems.	Ismail S. Hburi; Hasan F. Khzaal	154- 159
29	New Technique to Generate Permutation Measurable Spaces.	Shuker M. Khalil; Enoch Suleiman; Nadia M. Ali Abbas	160- 163
30	Cooperative Cognitive Radio - Sensing Optimization: Status, Challenges and Future Trends.	Doaa A. Mohammed; Sattar B. Sadkhan	164- 168
31	Analysis of a General-Purpose Current-Fed Parallel Resonant Inverter for Induction Heating Applications.	Firas A. Rasheed; Isam M. Abdulbaqi	169- 173
32	Image Transmission on MC-CDMA System over Rayleigh and AWGN Channel.	Abbas A. Ghanem; Samir J. Mohammed	174- 177
33	A survey of Selfish Nodes Detection in MANET: Solutions and Opportunity of Research.	Sanaa J. H. Al-Shakarchi; Raaid Alubady	178- 184
34	Reduction of Noise Effect to Detect the DSSS Signal based on Artificial Neural Network.	Aya Y. Khudhair; Rajaa A. Abd Khalid	185- 188
35	Image Transmission in Serial and Parallel Turbo Code with BPSK, QPSK Modulations.	Mohammed A. Lafta; Samir J. Mohammed	189- 193
36	Covid-19 Detection Using Deep Learning Models.	Ghada A. Shadeed; Abdullah A. Jabber; Nahedh H. Alwash	194- 198

37	Survey on Using Deep Learning to Detection COVID-19 Disease.	Mustafa K. Hashem; Ahmed S. Abbas	199- 204
38	A proactive Time Management Approach in the Stroke Service Evaluation.	Abathar Q. Aladi; Shaima I. Jabbar	205- 209
39	A Survey of Ransomware Attacks for Healthcare Systems: Risks, Challenges, Solutions and Opportunity of Research.	Noor Thamer; Raaid Alubady	210- 216
40	Design and Implementation of A Self-Inductance Measuring Circuit for an AIR-CORED Induction Coils.	Aziz Sh. Hamad, Hamdan F. Sabeeh, Isam Abdulbaqi	217- 221
41	Distributed and Parallel Computing System Using Single-Client Multi-Hash Multi-Server Multi-Thread.	Zryan N. Rashid; Subhi Zeebaree; Rizgar R. Zebari Sarkar H. Ahmed; Hanan M. Shukur; Ahmed Alkhayat	222- 227
42	A Survey on Stream Ciphers for Constrained Environments.	Sameeh A. Jassim; Alaa K. Farhan	228- 233
43	Performance Enhancement of FEC Code for DVB-T2 System by Using Rotated Constellations.	Hamzah S. Gayyib; Samir J. Mohammed	234- 238
44	Improving of 5G Wireless Networks Using Optimization Method.	Bashar H. Tajaldeen; Mehdi E. Manaa	239- 244
45	The Importance of Network Slicing and Optimization in Virtualized Cloud Radio Access Network.	Hawraa S. Hamza; Mehdi E. Manaa	245- 250
46	Performance Enhancement of Array Configurations with DF Algorithms Based for RDF.	Ali N. Abdullah; Laith A. Abdul-Rahaim	251- 256
47	A Review of the Most Effective Cryptography Techniques Based on Block Cipher and Lightweight	Elaf A. Al- Kareem; Rana S. Mohammed	257- 262
48	Assessment of Two Load Flow Methods in Distribution Network with Optimal Reactive Compensation.	Waleed K. S. Al-Jubori; Ali N. Hussian	263- 268
49	Optical Impairment Compensation in Fiber Communication Systems Based on Artificial Intelligence: A Comprehensive Survey.	Alaa H. Jarad; Ibrahim A. Murdas	269- 274

50	Optimization Technique to Support Integrated Generation Units in the Iraqi Super Grid 400kV for Performance Improving.	Ihsan M. Jawad; Wafaa S. Majeed	275- 280
51	Utilizing Latent Features for Building Recommender System Based on RBM.		281- 286
52	Smart House Hazard Alarm for Wireless Applications.	Jaber H. Majeed; Ahmed Alkhayyat; Bassam H. Abed	287- 292
53	Improving Blockchain Consensus Mechanism via Network Clusters.	Ali J. Al-Musharaf; Saif M. Al-Alak; Haider M. Al-Mashhadi	293- 298
54	Video Streaming Forecast Quality of Experience- A survey.	Ahmed S. Ghafil; Israa H. Ali	299- 304
55	Congestion Control Techniques in 5G mm Wave Networks: A review.	Bashar Hindawi; Ahmed S. Abbas	305- 310
56	Identification of Digitally Modulated Signal Used in Cognitive Radio Network -Survey.	Naseer A. Mousa; Sattar B. Sadkhan	311- 314
57	Modeling the Message Alternative Routes in a Large-Scale Wireless Sensor Network.	Sundos F. jabbar; Saad T. Hasson	315- 320
58	Abbreviation view of face presentation attack techniques.	Noor Al-Huda T. Jabbar; Taha M. Hasan; Mohammed A. Younus	321- 326
59	Multi-Layer Network Slicing and Resource Allocation Scheme for Traffic-aware QoS ensured SDN/NFV-5G Network.	Adian R. Alkhafaj; Firas S. Al-Turaihi	327- 331
60	A developed Clustering Approach to Model the Data Dissemination Types in a Highway.	Sura J. Mohammed Saad T. Hasson	332- 336
61	A Clustering Approach to Model the Data Dissemination in VANETs.	Saad T. Hasson Abbas T. Abbas	337- 342