

2021 International Conference on Advance of Sustainable Engineering and its Application (ICASEA 2021)

**Wasit, Iraq
27 – 28 October 2021**



**IEEE Catalog Number: CFP21N04-POD
ISBN: 978-1-6654-9737-4**

**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:	CFP21N04-POD
ISBN (Print-On-Demand):	978-1-6654-9737-4
ISBN (Online):	978-1-6654-9736-7

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

CURRAN ASSOCIATES INC.
proceedings
.com

Table of Contents

No.	Title of Papers	Page No.
1-	Evaluation Of Turbulence and Non-Newtonian Blood Rheology Models Through an FDA Nozzle	1-5
2-	Diagnosing of air compressor faults using frequency data driven approach	6-10
3-	Experimental Analysis Modelling of Tower Solar Chimney	11-15
4-	An Experimental Study to Improve Heat Transfer Rate in a Double Pipe Heat Exchanger Using Helical Tape	16-21
5-	Study The Effect of Storage Capacity on The Performance of Swimming Pool Heating System	22-26
6-	Improvement The Heat Dissipation by Using Different Integral Finned Tubes for Cross Flow Heat Exchanger	27-32
7-	The Powerful Method for Smart Classroom Communication Rely on IoT	33-36
8-	Design a New Smart Monitoring Micro-Grid Photovoltaic System Network Based on Mobile Technology	37-42
9-	Massive MIMO: An Overview, Recent Challenges, and Future Research Directions	43-48
10-	V/F Control of Three Phase Induction Motor Driven by VSI Based on SVPWM	49-53
11-	A Low-Cost Real-Time Monitoring System for the River Level in Wasit Province	54-58
12-	Cloud-based Parallel Computing System Via Single-Client Multi-Hash Single-Server Multi-Thread	59-64
13-	Voltage Stability Enhancement in Wasit 400 kV Grid by Using STATCOM	65-70
14-	Concatenated Turbo Polar Codes: An Overview	71-76
15-	Larceny Revelations of Electric Energy with Cloud Computing	77-82
16-	Practical Work for a Stand-alone Photovoltaic System: Efficient MPPT using Neural Network Approach	83-88
17-	Extraction of The Neural Edge and its Properties for The Retina Infected with Glaucoma	89-94
18-	Derive Shear Design Formula for Aerated Reinforced Concrete Piles Cap	95-100
19-	Seismic Performance of Underground Water Pipelines	101-106
20-	Confinement of RC Columns by Carbon Fiber Reinforced Geopolymer Adhesive Jackets	107-112
21-	A Preliminary Study of Using Geothermal-Piles in Baghdad City	113-118

No.	Title of Papers	Page No.
22-	Numerical Simulation of Different Models of Stepped Spillway With Using HALF-BALL Configuration	119-124
23-	Impact of Dilation Angle and Viscosity on the Ultra-High Performance Concrete Behavior in Abaqus	125-130
24-	Estimation of Flood Hazards Using Hec-Ras 1D: The Case of Al-Musandaq Escape	131-136
25-	Bus Stop Points for Urban Passenger Transport and the Factors That Influence Their Capacity	137-140
26-	Estimation of Predictive Potential of Quasi- Biennial Oscillation (QBO) Cyclical Stratospheric Circulation in Tropical Zone for Long-Term Precipitation Forecast	141-146
27-	Effect of Rainfall Intensity on Channel Sediment	147-152
28-	Prediction of Axial Capacity of Hexagonal Concrete-Filled Steel Tube Columns	153-158
29-	Plastic Hinge Zone Effect on Seismic Evaluation of RC Frame under Iraqi Seismic Code Loading	159-164
30-	Evaluation of the Design of Intensive Care Spaces to Confront the Corona Virus - the Study Area, Baghdad City	165-170
31-	Employing Iraqi Military Elements In Contemporary Architecture	171-175
32-	Healthy Recovery Based Architectural-Environmental Design: Physical Therapy Spaces as a Case Study	176-181
33-	Patterns of Physical Formation in Architecture (Iraqi Situation as case study)	182-187
34-	Measuring City's Social Urban Sustainability Criteria Using GIS: Kut City as a Case Study	188-193
35-	Social Innovation in Urban Development Projects	194-199
36-	Integrated Project Management Strategies-Residential Investment Case Study	200-205
37-	Regenerative design Method and Its relation with Vernacular Architecture	206-212
38-	Implementation of Steganography in Speech Signal Using Spread Spectrum Modulation and Differential Method in Wireless Communication Systems	213-218
39-	A 5G Waveforms Detection based-Windowed Cosine-Hamming Filter	219-224
40-	Crypto Warfare Techniques- Status, Challenges, and Future Trends	225-229
41-	Game Theory Role in Wireless Network Security – Status, challenges and Future trends	230-235

2021 International Conference on Advance of Sustainable Engineering and its Application
(ICASEA), Wasit, Iraq

No.	Title of Papers	Page No.
42-	Biometric Based Wireless Network security- Status, Challenges and Future Trends	236-241
<i>Keynotes and Special Events</i>		
43-	Water Resources Management in Iraq	242
44-	Towards Smart Propagation Environments for 6G communications	243
45-	Author index	