

2024 International Conference on Emerging Trends in Smart Technologies (ICETST 2024)

**Karachi, Pakistan
10-11 October 2024**



**IEEE Catalog Number: CFP24W88-POD
ISBN: 979-8-3315-1586-7**

**Copyright © 2024 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:	CFP24W88-POD
ISBN (Print-On-Demand):	979-8-3315-1586-7
ISBN (Online):	979-8-3315-1585-0

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

TABLE OF CONTENTS

A Deep Learning Based Approach for Sindhi Poet Classification Using Couplets	1
<i>Abdul Samad, Muhammad Munawwar Anwar, Ronit Kumar Kataria, Muhammad Murtaza, Faraz Ali</i>	
Design of a Digital Twin Based Feedback Controller for a Parallel Mechanism Based Six Degree of Freedom Machining Bed	7
<i>Asna Kalsoom, Muhammad Faizan Shah, Zareena Kausar, Muhammad Umer Farooq</i>	
Adopting Long-Short Term Memory to Predict Reliability in Different Use Cases in Autonomous Vehicles in 6G	13
<i>Arshee Ahmed, Haroon Rasheed, Muslim Jameel Syed</i>	
Effect of Cotton Dust Morphology on Photovoltaic Module Performance	19
<i>Basit Ali, M. Faisal Khan, Kashif Ishaque</i>	
Hybrid Forecasting Model for Smart Grid Using Exogenous Variables.....	25
<i>Faraz Shaikh, Hasan Ali Khattak</i>	
Deep Learning Based Poet Attribution Model for Punjabi Poetry.....	31
<i>Fatima Tariq, Ragini Gopchandani, Raza Hashim Nizamani, Abdul Samad, Muhammad Munawwar Anwar</i>	
Critical Analysis of Resource Sharing and Optimization in Fog Clustering	37
<i>Hezekiah Samwini, Mohsin Raza, Ella Pereira, Umar Khan, Muhammad Awais</i>	
Classification of Gastrointestinal Endoscopic Images Using Feature Space Particle Inference.....	43
<i>Humna Faisal, Muhammad Mustafa Ali Usmani, Muhammad Atif Tahir</i>	
Ensuring Child Safety: An IoT-Based Surveillance System for Remote Monitoring and Detection of Anomalous Behavior	49
<i>Khawaja Rabeet Tanveer, Muhammad Shaheer Luqman, Anam Qureshi</i>	
Bagging as Defence Mechanism Against Adversarial Attack.....	54
<i>Mahad Ahmed, Muhammad Atif Tahir</i>	
Predicting Lung Cancer Recurrence Using a Mobile Application Framework	60
<i>M. Imran Saeed, Fahad Sherwani</i>	
Optimizing Membrane Distillation Configuration for Superior Heat and Mass Transfer	66
<i>Muhammad Arslan, Xian Haizhen, M. Nouman Khalid Khan, Kashif Ali, Zaid Bin Tariq Baig</i>	
Simulation Design of a Photovoltaic-Based Reliable Street Lighting System Using PVSoft	72
<i>Muhammad Muneeb Khan, Sadiq Ahmad, Haroon Sikandar, Basit Akram, Mushtaq Hussain, Zeshan Haider Anjum</i>	
Optimized Sizing of Grid Connected PV Systems for Distributed Generation in Remote Sindh and Balochistan	76
<i>Muhammad Muneeb Khan</i>	
Array Tilt Angles to Maximize Solar Power Generation Efficiency	82
<i>Muhammad Muneeb Khan, Adnan Rasheed, Muhammad Aamir Shafī</i>	

Distributed Estimation of Anomalies Using a Low Complexity PSO Algorithm.....	87
<i>Muhammad Omer Bin Saeed, Salman A. Khan, Naveed R. Butt, Nazeeruddin Mohammad, Azzedine Zerguine</i>	
Towards a Time Series Prediction of Air Quality Index	91
<i>Omer Qureshi, Muhammad Nouman Durrani</i>	
Development of a Novel OMNET++ Framework for Analysis of an NB-IoT Uplink Network	97
<i>Sundus Ali, Muhammad Imran Aslam, Irfan Ahmed, Syed Talib Abbas Jafri, Tahniyat Aslam</i>	
Deep Learning Based Approaches for Animal Pose Estimation (APE): A Survey	101
<i>Syed Adnan Ali Zaidi, Asim Imdad Wagan</i>	
Study on the Impact of AI-Powered Green Supply Chain Management Practices on Organizational Sustainable Performance with the Mediation Role of Technology Innovation	107
<i>Muhammad Taseen, Wang Yongli, Burhan Sadiq, Muhammad Asif Saleem, Faiza Noor</i>	
A Modular Distributed Operating System Architecture for Scalable Mesh Topologies	112
<i>Yaazir M. Zaidi, Muhammad Usman Nisar, Rukhshan Khan, Anaum Hamid</i>	
IoRT Enabled Gesture Mimicking Robotic Hand Based on Computer Vision.....	117
<i>Yasir Javeed, Hafiz Muhammad Mehdi</i>	

Author Index