

2023 International Conference on Business Analytics for Technology and Security (ICBATS 2023)

**Dubai, United Arab Emirates
7-8 March 2023**

Pages 1-539



**IEEE Catalog Number: CFP23BH3-POD
ISBN: 979-8-3503-3565-1**

**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:	CFP23BH3-POD
ISBN (Print-On-Demand):	979-8-3503-3565-1
ISBN (Online):	979-8-3503-3564-4

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

Rock-Paper-Scissors Image Classification Using Transfer Learning	1
<i>Fahad Ahmed, Wasim Ahmad Khan, Muhammad Iqbal, Ashraf Riad Ahmad Abazeed, Hamza Alrababah, Muhammad Farhan Khan</i>	
Risk-Informed Target Set Analysis of Nuclear Power Plants	7
<i>Alreem Alkaabi, Chan Yeun</i>	
Deep Learning and Industrial Internet of Things to Improve Smart City Safety.....	14
<i>Umber Asad, Abdul Salam Mohammed</i>	
Analysis of Query Processing on Different Databases	24
<i>Mohammed Salahat, Muhammad Ahsan Raza, Zuha Khawar, Javid Ahmad Malik, Hammad Raza, Harish K G Nair, Muath Jarrah</i>	
Goldonomics: Cryptocurrency Vs. Gold; Which is a Better Store of Value in the Global	31
<i>Palak Jain, Akram Haddad, Ch. Paramaiah</i>	
The Impact of Implementing Mind Mapping Technology on Raising the Achievement of Curriculum Processing Unit in Teaching Methodologies & Styles Course	37
<i>Mohammad Altarawneh, Taghreed Al-Momani, Mohammad Al-Dlalah, Thair Kaddumi</i>	
Wormhole Attack Detection Technques in MANET	46
<i>Muhammad Bashir, Sidra Tahir, Maram Fahaad Almufareh, Bushra Hamid, Farkhanda Qamar</i>	
The Nexus Between Digital Innovation and Digital Entrepreneurship in the Strategic Transformation	53
<i>Kiran Tangri, Deepak Kalra, Paul Katuse, Turki Al Masaeid, Mohammed A. Afifi</i>	
Agent-Based Modelling and Simulation of Crowd Evacuation: Case Study for Electric Train Cabin.....	58
<i>Safwan Maghaydah, Piyush Maheshwari, Khaled Mohammad Alomari</i>	
Digital Platforms' Influence on Project Management	65
<i>Mounir El Khatib, Maryam Alqurashi, Salma Alhashemi, Maitha Alketbi, Shaima Alharmoodi</i>	
Impact of Open Big Data and Insurtech on Business Digitalization	72
<i>Zaid Saidat, Hamza Jamil Abdelrahim, Dina Ahmad Alkhodary, Ghazi Qasaimeh</i>	
Applications in Home Improvement Retailer, Koctas	77
<i>Nahia Mourad, Hammad Raza, Muhammad Amjad, Muhammed Ubaid Ullah, Nouh Sabri Elmitwally</i>	
Identity Threats in the Metaverse and Future Research Opportunities.....	83
<i>Abeer M. Awadallah, Ernesto Damiani, Jamal Zemerly, Chan Yeob Yeun</i>	
The Role of Big Data Tools and Supply Chain Capabilities in Promoting Supply Chain Sustainability: Insights Using Balanced Scorecard Approach.....	89
<i>Alaa S. Mushtaha, Mohammad A. K Alsmairat</i>	
Digital Transformation and Its Impact on Operational Efficiency and Competitive Advantage in Islamic Banks	95
<i>Maha Shehadeh, Dmaithan Almajali, Ibrahim A. Abu-Alsondos, Abeer F. Alkhwaldi, Anwar S. Al-Gasaymeh</i>	

The Growing Importance of Modern Technology in Education.....	101
<i>Amna Ilyas, Syed Shehryar Akbar, Syed Hamza Wajid, Shanmugan Joghee, Azra Fatima, Beenu Mago</i>	
Knowledge and Awareness on VR Technology Based Learning in Dentistry Among Dental Students	105
<i>Shabbarish Chockalingam, Hima Sandeep</i>	
IoT Skills for Executives: A Futuristic Review	109
<i>Mounir El Khatib, Lin Li, Ahmed Al-Nakeeb, Mariam Almheiri</i>	
Data-Driven Design for Anomaly Detection in Network Access Control Systems.....	115
<i>Musa Abubakar Muhammad, Fabio Caraffini, Adebamigbe Fasanmade, Olabayo Ishola, Kabiru Mohammed, Jarrad Morden</i>	
The Influence of Online Gaming on Students’ Attitudes, Behaviors, and Academic Performance.....	125
<i>Aarthi Kannan, Priyadharshini R, Palati Sinduja</i>	
Triple-Entry Accounting (TEA) and Blockchain Implementation in Accounting and Finance - A Survey.....	130
<i>Robinson Joseph, Rahul Sharma, Muhammad Imran Sarwar, Imran Khan, Ali Sheraz Akram, Tahir Alyas, Shehzada Atif, Ch. Paramaiah</i>	
An Analysis of Browser and Machine Fingerprinting Techniques	137
<i>Muhammad Mudassar, Muhammad Ali, Atif Ali, Zulqarnain Farid, Rabia Asif, Muhammad Hassaan Mehmood, Abdul Salam Mohammed</i>	
Smart Spaces: Occupancy Detection Using Adaptive Back-Propagation Neural Network.....	145
<i>Muhammad Saleem, Muhammad Saeed Khan, Ghassan F. Issa, Assma Khadim, Muhammad Asif, Ali Sheraz Akram, Harish K G Nair</i>	
Investigating the Role of Artificial Intelligence in Embedded Finance on Improving a Nonfinancial Customer Experience.....	151
<i>Anwar S. Al-Gasaymeh, Hamed Ahmad Almahadin, Maha Shehadeh, Hazem Migdady, Anas Ahmad Bani Atta</i>	
An Improved Convolutional Neural Network for the Image Enhancement	157
<i>Muhammad Fiaz, Mahmoud Ahmad Al-Khasawneh, Ghulam Irtaza</i>	
Exploring the Mediating Role of Willingness to Continue in AI-Based Data Analytics Adoption in Audit Firms.....	169
<i>Awni Rawashdeh, Mashaal Bakhit</i>	
Knowledge and Practice of Preventive Measures for Oral Health Care Among 14-16 Year Old School Children in Chennai – an Observational Study*	177
<i>Pavithra Sekhar, Jayashri Prabakar</i>	
Systematic Review: Predictive Models for the Winning Team of Super Leagues (SL)	182
<i>Salman Muneer, Muhammad Bux Alvi, Mahmoud Al Sakhnani, Hammad Raza, Taher M. Ghazal, Munir Ahmad</i>	
Electronic Image Processing for Writer-Independent Offline Signature Recognition Based Upon Fourier Descriptors.....	187
<i>Ghulam Irtaza, Hammad Raza</i>	

Impact of Metaverse and Marketing Innovation on Digital Transformation	192
<i>Muhammad Turki Alshurideh, Iman A. Akour, Barween Al Kurdi, Samer Hamadneh, Haitham M. Alzoubi</i>	
Survey Regarding Changing Food Habits in Wake of COVID-19	197
<i>Nirubama K, Gheena S, Karthikeyan Ramalingam</i>	
Simulating Synchronization Issues on a Multiprocessor Embedded System for Testing	202
<i>Fareeha Zafar, Saeed Ahmad, Muhammad Amjad, Nazish Waqar, Mahmoud Ahmad Al-Khasawneh, Sehrish Ali</i>	
Impact of Robo-Advisors and Artificial Intelligence on Customer Service Performance at Personal Finance Industry	208
<i>Lama Alsmadi, Esra' A Al-Amayreh, John Kasem, Anwar S. Al-Gasaymeh</i>	
Knowledge, Attitude and Practice Towards COVID-19 Prevention Among Outpatients from a Private Dental Institution - A Pilot Study	213
<i>Priyanka Sivasubramanian, D. Sri Sakthi</i>	
Detection of Facial Forgery in Digital Images	218
<i>Haider Ali Khan, Samabia Tehsin, Mamoona Humayun, Ghadah Naif Alwakid</i>	
Comparison of Exposure to Various Research Methodologies, Willingness, and Involvement of Undergraduate Students in Research Projects Between Indian and International Students- A KAP Survey.....	226
<i>Jayadharani C, Palati Sinduja, R. Priyadharshini</i>	
Problem Faced by Dental Patient During COVID – 19 Pandemic – a Survey	233
<i>Srivaths Mukka, Dinesh Premavathy</i>	
Automatic Diagnosis of Cataract and Myopia Through Fundus Images.....	237
<i>Wajeaha Ahmed, Bisma Shahid, Nauman Aziz, Farheen Afzal, Abd Ur Rehman, Fareeha Zafar</i>	
An Investigation of Operative Data Safety and Authentication Schemes for Benign Cloud Environments.....	244
<i>Wasim Ahmad Khan, Karamath Ateeq, Kamran Amjad</i>	
Analysis on Perception and Psychosocial Effect of Online Teaching and Regular Contact Classes Among the Parents of Children Under 10 Years.....	249
<i>Harita Ravikumar, R. Priyadharshini, Palati Sinduja</i>	
CNN-RNN Deep Learning Networks for Pattern Recognition Problems	255
<i>Inas Ismael Imran</i>	
Social Media Analytics Through Big Data Using Hadoop Framework.....	260
<i>Rasha Almajed, Bilal Shoaib Khan, Ayman Bassam Nassoura, Muhammad Sohail Irshad, Muhammad Amjad, Muhammad Hassan, Shahid Maqbool, Manas Pradhan</i>	
Analysis of Fingerprint as a Identification Tool in Forensic-Survey Based Study	270
<i>Hemaanhini Tamilmani, Abirami Arthanari</i>	
An Introduction to Multilevel Modeling for Insurance and Actuarial Applications	276
<i>Mona S. A. Hammad</i>	

Student e-Learning Experience: A Nexus Among e-Learning Quality, Student Engagement and Resulting Satisfaction.....	285
<i>Nawras M. Nusairat, Lames S. Dalbah, Qais Hammouri, Jassim Ahmad Al-Gasawneh, Dana Abed Alhakim Akhaurshaideh, Tariq Zeyad Alnasser, Marhana Mohamed Anuar</i>	
Shared Leadership Practices on the Role of the Employees' Effectiveness	290
<i>Turki Al Masaeid, Divya Upadhyay</i>	
Classification of Rice Varieties Using Convolution Neural Networks.....	295
<i>Muhammad Bilal Shoaib Khan, Rukshanda Kamran, Mahmoud Abu Saima, Muhammad Sohail Irshad, Naila Samar Naz, Atifa Athar</i>	
Empowering Donors: How Blockchain Technology Can Help Ensure Their Contributions Reach the Right Recipients	301
<i>Sahar Ajmal, Muteeb Bin Muzammil, Muhammad Shoaib, Muhammad Hassaan Mehmood</i>	
An Analysis of Social Media Activities and Student Performance Using Topic Modeling and Correlation.....	307
<i>Ken Gorro, Anthony Ilano, Elmo Ranolo, Hedeliza Pineda, Cristine Sintos, Apple Jane Gorro</i>	
The Effect of Virtual Reality and Augmented Reality on Managing Projects	312
<i>Mounir El Khatib, Fatima Al Falasi, Haneen Al Anani, Wafaa Shurrab</i>	
Comparative Evaluation of the Maintainability of RESTful and SOAP-WSDL Web Services	322
<i>Saeed Ahmad, Sehrish Ali, Nazish Waqar, Naila Samar Naz, Muhammad Hassaan Mehmood</i>	
Post-Covid-19 Pandemic it Project Management Skills and Challenges	331
<i>Liaqat Ali, Nasser Taleb, Atif Ali, Ibrahim A. Abu-Alsondos, Hina Naseem, Farhan Yousaf, Mohamed Abdelhakim</i>	
Impact of Cryptocurrency Regulations and Fintech on the Growth of Innovations	339
<i>Alrawashdeh Najed, Heba Al-Malahmeh, Amaal Al-Amawi, Mohammad Almashaqbeh, Majdi Alsaaidh, Alsmadi Ayman Abdalmajeed</i>	
Data Analytics Monetary Crisis Impact on Legal Instruments: A Remedy Role of the Unjust Enrichment Theory: Case of Lebanon.....	344
<i>Dani Itani, Rania Itani, Asma Salman</i>	
Medical Diagnoses: Heart Disease Prediction.....	352
<i>Mahmoud Mahfuri, Taher M. Ghazal, Muhammad Mudassar, Shahan Yamin Siddiqui, Sajid Farooq, Nayab Kanwal, Munir Ahmad</i>	
Usability Evaluation of Kids' Learning Apps.....	357
<i>Amer Ibrahim, Murad Al-Rajab, Khalid Hamid, Muhammad Aqeel, Salman Muneer, Mehvish Parveen, Maryam Saleem</i>	
Using Gradient Boosting Algorithms in Predicting Student Academic Performance.....	367
<i>Esraa Mashagba, Faisal Al-Saqqar, Atallah Al-Shatnawi</i>	
Playing the Video Games During COVID-19 Pandemic and Its Effects on Player's Well-Being	374
<i>Samar Billi Noaman, Amer Ibrahim, Liaqat Ali, M. W. Iqbal, Asma Ashraf, Usama Haseeb, Salman Muneer, Rasha Almajed, K. Hamid</i>	
Integrating Artificial Intelligence in Improving Educational System: The Mediating Role of Smart Learning	379
<i>Iman A. Akour, Hevron Muhammad Alshurideh, Haitham M. Alzoubi, Muhammad Turki Alshurideh, Yasin Ahmad Antouz</i>	

Incorporating Data Analytics into Accounting Curricula: The Case of Jordanian Universities.....	384
<i>Mohammed Idris, Saleh Al-Okdeh, Osama Mahd, Yousef Abu Siam</i>	
A Hybrid Model for Botnet Detection Using Machine Learning	389
<i>Anam Zaheer, Sidra Tahir, Maram Fahaad Almufareh, Bushra Hamid</i>	
The Impact of COVID-19 Routine Life - A Survey	397
<i>N. E. Kaviya, S. Gheena</i>	
Blockchain and Edge Computing Integration Boosts Scalability and Reduces Latency.....	402
<i>Mahmoud Mahfuri, Ahmad Enad Alnawaiseh, Umber Asad, Muhammad Yousif, Shoukat Aslam, Zakariya Chabani, Muhammad Fiaz</i>	
Early Detection of Breast Cancer Using an Improved Deep-Learning Model	409
<i>Muhammad Yousif, Hamza Alrababah, Muhammad Atif, Munir Ahmad, Muhammad Asghar Khan</i>	
Factors Analysis Affecting Academic Achievement of Undergraduate Student: A Study on Faculty of Information Technology Students at Applied Science Private University.....	416
<i>Manal Alkayed, Fadi Almasalha, Mohammad Hijjawi, Mahmoud H Qutqut</i>	
A Review on the Need of Clustering Techniques Used for Wireless Sensor Networks.....	427
<i>Salil Bharany, Ateeq Ur Rehman, M. Tariq Sadiq, Muhammad Farrukh, Meshal Alharbi, Amjad Hussain, Ghassan F. Issa</i>	
Leading Talent Management: Empirical Investigation on Applicant Tracking System (ATS) on e-Recruitment Performance	433
<i>Amer Hani Al-Qassem, Kakul Agha, Mohit Vij, Hamzah Elrehail, Ruchi Agarwal</i>	
Enhancing Vegetable Quality Prediction with Fuzzy Interference System	438
<i>Murad Al-Rajab, Muhammad Asif, Saad Hussain Chuhan, Muzzamil Mustafa, Anna Ilyas, Rukshanda Kamran, Ashraf Riad Ahmad Abazeed, Mahmoud Abu Saima, Sai Geeta</i>	
Antecedents of Continuance Intention to Use M-Payment Applications in India	444
<i>Mohammed Anam Akhtar, Deepesh Kumar Srivastava</i>	
Metaverse Skills for Executives and Senior Managers: The Pros and Cons	450
<i>Mounir El Khatib, Ali Al Khayat, Sultan Al Mansoori, Alya Alzaabi, Ahmed Ankit</i>	
SBM: A Time and Resource Efficient Single Backward Match Exact String Searching Algorithm	457
<i>Ayman Bassam Nassoura, Muhammad Ibrahim, Atif Ali, Sania Safdar, Shujah Ur Rehman, Amer Ibrahim, Hamza Alrababah</i>	
Using Digital Marketing to Enhance Sustainability in the Coffee Business.....	467
<i>Lukas Lorenza Suherman, Albert Felix Jonathan, Dian Kurnianingrum, Enny Noegraheni Hindarwati, Iston Dwija Utama</i>	
The Role of Artificial Intelligence in Mitigating Cyber Security Issues and Its Impact on FinTech.....	471
<i>Mohammad H. S. Inairat, Nizar M. F. Sahawneh, Mohd Abu Faiz, Safwan Maghaydah, Rania Itani</i>	
Age Estimation Using Demirjian's 8 Teeth Method Maximillary Upper Right Third Molar.....	476
<i>G S Sutharshan, Abirami Arthanari</i>	
Paper Book Recommendation System by Using Neural Network	480
<i>Faiza Khaliq, Anna Ilyas, Abd Ur Rehman, Syed Shahryar Akbar, Omar Sattar</i>	

The Effect of Label-Flipping Attack on Different Mobile Machine Learning Classifiers.....	488
<i>Alanoud Almemari, Raviha Khan, Chan Yeob Yeun</i>	
The Impact of Internet of Things (IoT) and Logistics Activities on Digital Operations.....	498
<i>Yasin Ahmad Antouz, Iman A. Akour, Muhammad Turki Alshurideh, Haitham M. Alzoubi, Enass Khalil Alquqa</i>	
Effect of Various Tobacco Product on the PH and the Cytomorphology of Blood:A Comparative Study.....	503
<i>R. Priyadharshini, V. Vamshi Ram, Palati Sinduja</i>	
An Automated Platform for Gathering and Managing Open-Source Cyber Threat Intelligence.....	508
<i>Nidal A. Al-Dmour, Mohammad Kamrul Hasan, Masood Ajmal, Muhammad Ali, Iftikhar Naseer, Atif Ali, Hussam Al Hamadi, Nasir Ali</i>	
A Secure and Reliable Supply Chain Management Approach Integrated with IoT and Blockchain.....	515
<i>Humaira Ashraf, Maria Hanif, Uswa Ihsan, Fatima Al-Quayed, Mamoona Humayun, Nz Jhanjhi</i>	
The Blockchain Technology Integration with Internet of Things for Digital Supply Chain Transformation	523
<i>Maha Shehadeh, Anwar S. Al-Gasaymeh, Hamed Ahmad Almahadin, Mohammad Rustom Al Nasar, Esra' A B. Al-Trad</i>	
The Interplay Between Artificial Intelligence and Innovation and Its Impact on B2B Marketing Performance.....	528
<i>Muhammad Turki Alshurideh, Samer Hamadneh, Barween Al Kurdi, Iman A. Akour, Enass Khalil Alquqa</i>	
A Critical Analysis on Cybercrimes	533
<i>Sadaf Hussain, Saher Ashraf, Seep, Hussam Al Hamadi, Zain Ul Abideen</i>	
Evaluate the Performance Parameters for Web Browsers Empowered with Fuzzy Logic	540
<i>Faiza Khaliq, Farheen Afzal, Abd Ur Rehman, Nauman Aziz, Fareeha Zafar</i>	
Intelligent System to Diagnosis of Pneumonia in Children Using Support Vector Machine.....	550
<i>Maria Tariq, Mahmoud Ahmad Al-Khasawneh, Ghulam Irtaza, Muhammad Fiaz, Waseem Safi, Rabia Asif</i>	
An Efficient ISAR Image Enrichment and Feature Abstraction of Moving Targets Using Time-Frequency Transforms.....	556
<i>Tahir Abbas Khan, Sidra Zulfiqar, Muhammad Irfan</i>	
Fake Twitter Followers Detection Using Machine Learning Approach	561
<i>Muhammad Zeshan Shabbir, Iftikhar Naseer, Shamim Akhter, Muhammad Abubakar, Ghassan F. Issa, Muhammad Hassaan Mehmood</i>	
A Comparison of Reading CT MRI Among Indian and International Student – a Picture Survey.....	568
<i>Sachin Aditya B, Palati Sinduja, R. Priyadharshini</i>	
Software Testing Issues Improvement in Quality Assurance.....	574
<i>Mohammed Salahat, Raed A. Said, Khalid Hamid, Usama Haseeb, Elsaid Abdel Maguid Abdel Ghani, Abedallah Abualkishik, Muhammad Waseem Iqbal, Mohammad Inairat</i>	
Improved and Automatic Classification of Polyp for Colorectal Cancer	580
<i>Bisma Shahid, Abdur Rehman, Muhammad Farhan Khan, Farheen Afzal, Nauman Aziz</i>	

An ML-Based Simulation Capability to Generate Training Data-Set of Boiler Subsystems	590
<i>Ala Abdelrazaq Alhamadi, Chan Yeob Yeun, Ernesto Damiani</i>	
The Role of Technology of Mind Mapping on Internal Auditing in Risk Management: Evidence from Jordanian Commercial Banks	595
<i>Saleh Al-Okdeh</i>	
An International Perspective on ECHO and ECG Interpretation Skills: Insights from a KAP Survey of Medical Residents in India.....	607
<i>Malavika Pradeep, Palati Sinduja, R Priyadharshini</i>	
Alzheimer's Disease Classification Using Abnormal Hippocampal Functional Connectivity and Machine Learning.....	612
<i>Nayab Kanwal, Nasir Ali, Mahmoud Ahmad Al-Khasawneh, Assma Khadim</i>	
Blockchain and LDP Based Smart Healthcare IoT Applications: Architecture, Challenges and Future Works	619
<i>Maham Iftikhar, Sidra Tahir, Fatima Alquayed, Bushra Hamid</i>	
Water Saving Technologies and Estimating Residential Water Demand in Lesotho: Policy Implications	625
<i>Ch. Paramaiah, Y. Ramakrishana, V. V. Ajith Kumar, Teboho Matia</i>	
Research Challenges and Future Facet of Cellular Computing	633
<i>Saif E. A. Alnawayseh, Tahir Abbas Khan, Umer Farooq, Sidra Zulfiqar, Shan Khan, Amer Hani Al-Kassem</i>	
Intelli-Farm: IoT Based Smart Farming Using Machine Learning Approaches.....	641
<i>Sidra Tahir, Yaser Hafeez, Farkhanda Qamar, Ghadah Naif Alwakid</i>	
A Review of Cybersecurity Challenges and Recommendations in the Healthcare Sector	647
<i>Nitinkumar Shingari, Seema Verma, Beenu Mago, Muhammad Sheraz Javeid</i>	
Detection and Replay of Distributed Denial of Service Attacks in Smart Cities Using a Hybrid Deep Learning Approach.....	655
<i>Muhammad Waseem Iqbal, Ghassan F. Issa, Muhammad Yousif, Muhammad Atif</i>	
Knowledge Awareness and Practice Survey of Dental Students Towards the Use of Bioactive Materials in Dentistry	662
<i>Rieshy V, Hima Sandeep</i>	
Cyber Security Threats on Multifunctional Devices and Mitigation Techniques	668
<i>Nidal A. Al-Dmour, Umer Farooq, Irfan Sarwar, Muhammad Waseem Iqbal, Muhammad Aqeel, Wasim Ahmad Khan, Hussam Al Hamadi</i>	
Increase the Degree of Accuracy by Employing a More Accurate Classification Approach.....	674
<i>Muhammad Farhan Khan, Muhammad Sajid Farooq, Shanmugan Joghee</i>	
Therapeutic Image Synthesis Using Hybridization of Curvelet and Wavelet Transform	681
<i>Nafisa Tahir, Ayesha Atta, Mazhar Bukhari</i>	
An Experiment on DCGAN-Based Synthetic Samples of Flora Species for YOLO-Based Classification	686
<i>Ken Gorro, Anthony Ilano, Elmo Ranolo, Hedeliza Pineda, Cristine Sintos, Apple Jane Gorro</i>	

Perception and Practice Towards Hand Hygiene During Pandemic Among Patients Visiting OPD in a Private Institution.....	692
<i>Soumya Sri S, D Sri Sakthi</i>	
Anti-Inflammatory and Anti-Diabetic Activity of Ficus Benghalensis Mediated CopperOxideNanoParticles	696
<i>Nandita R, S. Rajeshkumar, Lakshmi T</i>	
Age Estimation Using Demirjian Method in Mandibular Permanent 38 and 48 in Indian Population.....	702
<i>Thana Lakshme P. S, Abirami Arthanari, K. Anjaneyulu</i>	
An Early Diagnosis of Brain Tumor Using Fused Transfer Learning	708
<i>Ghulam Sajjad, Muhammad Bilal Shoaib Khan, Taher M. Ghazal, Muhammad Saleem, Muhammad Farhan Khan, Muhammad Wannous</i>	
A Safe and Reliable Method for Data Exchange in the Cloud	713
<i>Nayab Kanwal, Ghulam Irtaza, Shanmugan Joghee, Karamath Ateeq, Assma Khadim</i>	
An Intelligent Data Analysis for Recommendation Systems Using Machine Learning	720
<i>Zahid Hussain, Beenu Mago, Assma Khadim, Kamran Amjad</i>	
Real-Time Human Body Sensors Data Classification Using Supervised Machine Learning.....	727
<i>Muhammad Sajid Farooq, Muhammad Farhan Khan</i>	
Toward Smart Organization: The Metaverse as Breakthrough for Learning Organization	734
<i>Deepak Kalra, Sudhakar Kota, Ghassan Issa Alomari, Mohammed A. Afifi, Alaa S. Mushtaha</i>	
Heart Disease Prediction Using Machine Learning.....	739
<i>Taher M. Ghazal, Amer Ibrahim, Ali Sheraz Akram, Zahid Hussain Qaisar, Sundus Munir, Shanza Islam</i>	
Off-Grid Wi-Fi Mesh Systems.....	745
<i>S. Khalid, A. Saud, M. Omar, S. S. Khan, S. Larkin</i>	
The Impact of Digital Marketing and Digital Procurement on Operations Performance	750
<i>Enass Khalil Alquqa, Barween Al Kurdi, Muhammad Turki Alshurideh, Samer Hamadneh, Haitham M. Alzoubi</i>	
The Effect of Artificial Intelligence on Cybersecurity	756
<i>Atif Ali, Muhammad Arif Khan, Khushboo Farid, Syed Shehryar Akbar, Amna Ilyas, Taher M. Ghazal, Hussam Al Hamadi</i>	
Genetic Algorithm Based Adaptive FSO Communication Link.....	763
<i>Abedallah Abualkishik, Muhammad Saleem, Umer Farooq, Muhammad Asif, Muhammad Hassan, Javaid Ahmad Malik</i>	
Approaching Quality 4.0: The Digital Process Management as a Competitive Advantage.....	767
<i>Ramakrishna Yanamandra, Naseem Abidi, Riktesh Srivastava, Saigeeta Kukunuru, Haitham M. Alzoubi</i>	
MABPD: Mobile Agent-Based Prevention and Black Hole Attack Detection in Wireless Sensor Networks	773
<i>Humaira Ashraf, Fizza Khan, Uswa Ihsan, Fatima Al-Quayed, N. Z. Jhanjhi, Mamoona Humayun</i>	
Anticancer Activity of Ginger Oleoresin Against Liver Cancer Cell Line	784
<i>N. Mohamed Arsath, Anitha Roy, S. Raghunandhakumar</i>	

Resource Provisioning in Cloud Computing Using Fuzzy Logic Control System: An Adaptive Approach.....	788
<i>Saif. E. A. Alnawayseh, Muhammad Hassan Ghulam Muhammad, Zahid Hassan, Mayraj Fatima, Muhammad Shoukat Aslam, Amer Ibrahim, Karamath Ateeq</i>	
Achieving Sustainable Organization: From Talent Management Strategy to Employee Effectiveness.....	797
<i>Belal Shneikat, Sharon M. Dreisbach, Hamzah Elrehail, V. V. Ajith Kumar, Ali A. Alzoubi</i>	
HR Analytics and Future of Work: A Systematic Literature Review.....	802
<i>Hamzah Elrehail</i>	
IAPC2: Improved and Automatic Classification of Polyp for Colorectal Cancer	806
<i>Bisma Shahid, Maria Abbas, Abd Ur Rehman, Zain Ul Abideen</i>	
Impact of Blockchain Technology and Fintech on Sustainable Performance.....	820
<i>Hamed Ahmad Almahadin, Maha Shehadeh, Anwar S. Al-Gasaymeh, Ibrahim A. Abu-Alongos, Anas Ahmad Bani Atta</i>	
Prediction of Specific Language Impairment in Children Using Cepstral Domain Coefficients	825
<i>Saima Safdar, Sumaira Kausar, Samabia Tehsin, Maria Mahmood, Ghadah Naif Alwakid</i>	
A Systematic Review of Machine Learning and Artificial Intelligence Methods to Tackle Climate Change Impacts	836
<i>Abdur Rehman, Sharjeel Tariq, Amina Farrakh, Munir Ahmad, Muhammad Sheraz Javeid</i>	
Moderating and Mediating Roles of Users' Self-Efficacy and User Behavior Amongst the Internet of Things and Search Engine Optimization.....	843
<i>Jassim Ahmad Al-Gasawneh, Qais Hammouri, Marhana Mohamed Anuar, Nawras M. Nusairat</i>	
How Blockchain and IoT Affect Project Risk Management.....	849
<i>Mounir El Khatib, Abdulla Alnaqbi, Ahmed Alnaqbi, Hamad Alsuwaidi, Ali El Khatib</i>	
Digital Entrepreneurial Marketing Strategy: An Empirical Analysis Using Resource Based Theory	856
<i>Shanmugan Joghee, Deepak Kalra, Swamynathan Ramakrishnan, Kiran Nair, Ali A. Alzoubi</i>	
Knowledge and Awareness of the Use of Artificial Intelligence in Digital Pathology	861
<i>Lasya Ganta, Palati Sinduja, R. Priyadharshini</i>	
Development and Use of Artificial Intelligence in the Defense Sector	867
<i>Atif Ali, Zulqarnain Farid, Amer Hani Al-Kassem, Zeeshan Ahmad Khan, Mahreen Qamer, Khushboo Farid Khan Ghouri, Mahmoud Al Sakhnani, Alaa M. Momani</i>	
Impact of Digital Payment Systems and Blockchain on Economic Growth	877
<i>Bassam Al-Own, Zaid Saidat, John Kasem, Ghazi Qasaimeh</i>	
Personality Traits and Its Effect on Oral Health of Outpatients Visiting a Private Dental Institution in Chennai.....	882
<i>Faaizah Fathima, D. Sri Sakthi</i>	
User Feedback Based Trust Analysis in Cloud Computing Using Machine Learning Approach.....	886
<i>Syed Ali Raza, Asma Kanwal, Harish K G Nair, Atif Ishaq Khan, Iftikhar Naseer, Muhammad Amjad, Karamath Ateeq, Mahmoud Al Sakhnani</i>	

Empowering SMEs Using New Forms of Digital Innovation: An Empirical Study on Fashion and Clothing Sector.....	894
<i>Qais Hammouri, Jassim Ahmad Al-Gasawneh, Nawras M. Nusairat, Abdalrazzaq Aloqool, Esraa Al-Amayreh, Marhana Mohamed Anuar</i>	
Knowledge Awareness, and Practice on Emotional Intelligence and Academic Performance Among Lecturers*.....	899
<i>A. Sabaritha, Palati Sinduja, R. Priyadharshini</i>	
The Use of Encryption to Preserve the Privacy and Security of Electronic Health Records.....	906
<i>Naila Samar Naz</i>	
Knowledge, Atitude and Practice of Postgraduates Towards Use of Bonded Amalgam in Dentistry	913
<i>Sundar R, Hima Sandeep</i>	
Coral Detection in Fluorescence Images and Videos Using YOLOV3 and YOLOV5.....	918
<i>Ken Gorro, Anthony Ilano, Elmo Ranolo, Hedeliza Pineda, Cristine Sintos, Apple Jane Gorro</i>	
Quatitative Platelet Parameters in Normal and Cancer Patients -A Comparative Analysis.....	924
<i>Bianca Princeton, R. Priyadharshini, Palati Sinduja</i>	
Impact of Open Banking Strategy and Fintech on Digital Transformation	928
<i>Ahmad A Al-Naimi, Shafiq Al Abed, Umar Farooq, Ghazi Qasaimeh, Mohammad Ahmad Alnaimat</i>	
Perceived Stress Among Dental Students in Private College, Chennai – an Institutional Study.....	933
<i>Sujitha S, L. Leelavathi, Palati Sinduja</i>	
Novel Heuristics for Stock Portfolio Optimization Using Machine Learning and Modern Portfolio Theory	937
<i>Bristo Joemon, Mustansar Ali Ghazanfar, Muhammad Awais Azam, N. Z Jhanjhi, Arshad Ali Khan</i>	
Antecedents of Social Media Characteristics on Users’ Attitudes Toward E-Services: Conceptual Framework.....	943
<i>Dmaithan Almajali</i>	
The Impact of Digital Marketing and Digital Payment on Financial Performance	948
<i>Barween Al Kurdi, Yasin Ahmad Antouz, Muhammad Turki Alshurideh, Samer Hamadneh, Enass Khalil Alquqa</i>	
Improving Security in IoT System Using a Blockchain and a Microservices Technology.....	953
<i>Khulud Salem Alshudukhi, Maher Ali Khemakhem, Fathy Elbouraey Eassa, Kamal M. Jambi</i>	
Improving Pneumonia Detection in Chest X-Rays Using Transfer Learning Approach (AlexNet) and Adversarial Training	958
<i>Atifa Athar, Rizwana Naz Asif, Muhammad Saleem, Sundus Munir, Mohammad Rustom Al Nasar, Alaa M. Momani</i>	
Age Estimation Using Demirjian Eight Teeth Method in Maxillary Left Molar and Mandibular Left Molar in Indian Population.....	965
<i>Sneka S, Abirami Arthanari</i>	
The Nexus Between Technology and Finnovation: A Sustainable Development Model.....	971
<i>Aqila Begum, Jesus Cuauhtemoc Tellez Gaytan, Gouher Ahmed</i>	

Internet of Things (IoT) in Smart Cities: A Statistical Survey.....	979
<i>Muhammad Waseem Iqbal, Khowla Khaliq, Nidal A. Al-Dmour, Muhammad Aqeel, Nasir Ali, K. Hamid</i>	
Factors Affecting the Adoption of Amazon Web Services in Government Institutions in Jordan	985
<i>Mohammad Jebreel, Mohammad Dweiri, Khaled Zureikat, Eyad Khalile Abuhaq, Abdelrahim Nassoura, Mohammad Alqasass</i>	
Comparatively Analysis of Compression Chiller (Model # GVWF 260) Using Machine Learning Techniques.....	989
<i>Arslan Munir, Akhlaq Ahmad, Salman Muneer, Naila Samar Naz, Syed Shehryar Akbar</i>	
Impact and Research Challenges of Penetrating Testing and Vulnerability Assessment on Network Threat	995
<i>Areej Fatima, Tahir Abbas Khan, Tamer Mohamed Abdellatif, Sidra Zulfiqar, Muhammad Asif, Waseem Safi, Hussam Al Hamadi, Amer Hani Al-Kassem</i>	
Assessment of Perception of Usage of Mobile Social Media on Online Business Model Through Technological Acceptance Model (TAM) and Structural Equation Modeling (SEM).....	1003
<i>Kiran Tangri, Shanmugan Joghee, Deepak Kalra, Beenish Shameem, Ruchi Agarwal</i>	
A Comprehensive Review on Big Data Challenges	1009
<i>Salil Bharany, Nasser Taleb, M. Tariq Sadiq, Nayab Kanwal, Mohamed Abdelhakim, Taher M. Ghazal, Manas Pradhan, Ateeq Ur Rehman</i>	
Active Strategy for Learning Non-Deterministic Automata by Peer.....	1016
<i>Bisma Shahid, Abd Ur Rehman, Nafisa Tahir, Omar Sattar</i>	
Effect of Big Data Analytics on Internal Audit Case: Credit Suisse.....	1022
<i>Bouriche Sihem, Bouriche Ahmed, Haitham M. Alzoubi, Bashar Yaser Almansour</i>	
Conceptual Cognitive Model for Human-Machine Social Contact and Emotion Based Generated Behaviors.....	1032
<i>Salman Muneer, Asma Kanwal, Amer Hani Al-Kassem, Arslan Munir, Sai Geeta, Iqra Rustam</i>	
Framework of Decision Support System for Effective Resource Management	1037
<i>Muhammad Imran Naz, Samina Rajper, Atif Ali, Muhammad Faisal Khan, Rabia Asif, Muhammad Hassaan Mehmood, Nizar Sahawneh, Deepak Kalra</i>	
A Decade of Studies on Cyber Security Training in Organizations Using Social Network Analysis: A Systematic Literature Review Through Keyword co-Occurrence Network	1044
<i>Srinidhi Vasudevan, Anna Piazza, Madeline Carr</i>	
Examining the Growth of Online Entrepreneurship Effects on Family Income in Jordan During the Corona Virus.....	1050
<i>Hanady Al-Zagheer, Ayad Fadhil Altememi</i>	
Impact of IoT and Recourse Based View on Digital Business: The Role of Strategic Thinking Leadership	1054
<i>Naseem Abidi, Ramakrishna Yanamandra, Harish K. G. Nair, Mohammad Rustom Al Nasar, Osama Khassawneh</i>	
Impact of e-Human Resources Management on Public Safety with Mediating Role of Occupational Health	1061
<i>Khaled M. K. Alhyasat</i>	

The Mediating Role of Control Risk in the Relationship Between Technological Factors and AI-Based Predictive Analytics Adoption: Evidence from Audit Firms in the US.....	1067
<i>Awni Rawashdeh, Mashaal Bakhit, Saleh Al-Okdeh</i>	
An Efficient Steganographic Approach for Securing Text Transmission Using S-Box in Cloud.....	1074
<i>Humaira Ashraf, Javeria Malik, Uswa Ihsan, Fatima Al-Quayed, Mamoona Humayun, N. Z. Jhanjhi</i>	
Knowledge Attitude and Practice of Disinfection of Gutta Percha Among Post Graduate Dental Students	1082
<i>R. Shradha Jalan, Hima Sandeep</i>	

Author Index