

# **2024 Third International Conference on Smart Technologies and Systems for Next Generation Computing (ICSTSN 2024)**

**Villupuram, India  
18-19 July 2024**



**IEEE Catalog Number: CFP24AP2-POD  
ISBN: 979-8-3503-9157-2**

**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:	CFP24AP2-POD
ISBN (Print-On-Demand):	979-8-3503-9157-2
ISBN (Online):	979-8-3503-9156-5

**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

**IFET COLLEGE OF ENGINEERING**

**THIRD IEEE TECHNICAL SPONSORED INTERNATIONAL CONFERENCE ON SMART TECHNOLOGES AND SYSTEMS FOR NEXT GENERATION COMPUTING(ICSTSN 2024)**

**TABLE OF CONTENTS**

<b>Sl.No</b>	<b>Page #</b>	<b>TITLE</b>	<b>Authors</b>
1	1	Navigating the Nexus: A Bibliometric Analysis of the Intersection Between AI, Multimedia and Journalism	Ramandeep Sharma, Deepak Kumar Singh , Pradeep Kumar, Mohd Khalid ,Tushar Ranjan Dash, Bhoomi Vij
2	7	Gamifying Language Learning: Applying Augmented Reality and Gamification Strategies for Enhanced English Language Acquisition	B Kiran Bala,Kathiravan Ravichandran, B. Anita Virgin, Surekha Patil, Gulnaz Fatma,Manikandan Rengarajan
3	13	Reduced Switch Inductor DC- DC Converter with Increased Gain for PV System	Sriram S,V. Mohan
4	18	Enhancing Android Malware Detection Through Machine Learning: Insights from Permission and Metadata Analysis	Shankar G,Sridhar S, Srivatsan G, Kishan R, Pranav Vikraman S S
5	24	Mitigation of Uncertainties in Energy Management of a Grid Connected Microgrid	Rajesh Kumar Prakhya,P.V.Rama Krishna
6	29	Design and Analysis of Weather Parameters Using MEMS Technology with Suitable Characteristics for Integration into a Single Chip for Environment Monitoring	S. Gunasekar, Abdurrashid S. Hassan, Vimala A. Juliet, Pius Agbulu .G, G.Joselin Retna Kumar, Raghavendra Reddy N V
7	36	Ensemble Based Soil Classification Using Machine Learning Techniques	G Revathy,P.Aurchana,Antony Joseph Rajan.D, R. Madonna Arieth
8	41	A Hybrid Decision-Tree and ANN Learning Model for Air Contamination Forecasting	S Gunasekar G. Pius Agbulu, G. Joselin Retna Kumar, Raghavendra Reddy N V, Y Dileep Kumar, R. Ramesh Prasad
9	46	Modelling of Artificial Intelligence Based Eco- Friendly Quadcopter for Sustainable Agriculture	S.Jaisiva,Lakshana R, Harshavarshini S, Keerthana R, Kirankumar K,Lijo Jacob Varghese
10	52	Smart IoT Medication Companion	Kalpna Murugan,Sai Govardhan Reddy, Sampath Reddy, Pavan Kumar, Karthik Reddy
11	58	Data Mining Framework for Discovering and Clustering Phenotypes of Atypical Diabetic Lung	Lekshmy S,K.P. Sridhar,Michaelraj Kingston ROBERTS

12	64	Creating A Resilient Blockchain Framework To Enhance The Efficiency and Security of Data Management Within Internet of Things Networks.	Infant Raj,I,A Balavivekanandhan,Annapurna Gummadi,Mohd Arif,Narinder Kumar Bhasin,Kamal Gulati
13	70	Enhancing The Efficiency Of Pb-Based Perovskite Solar Cells Using Layer Thickness Optimization	Saiful Islam Tuhin ,Md. Arif Hasan Masum,Md. Sahadat Hossain Sani,Md.Nure Alam Siddiki,Md. Shamsul Arefin
14	75	Mental Health Harmony : Insights from The Machine Learning Frontier	Nithiyasree.P,Kavitha Subramani, Soorya S, Vatturi Harshitha, Arundhathi T
15	81	Unified Payment Interface Imposture and Scam Detection Using Deep Learning and ANN	N. Karthick,G. Leema Roselin,M. Tamilarasan,K. Kalaiselvi,S. Sudha,J. Jayanthi
16	87	Data Security in Cloud Computing Using Maritime Search and Rescue Algorithm	Mahesh Muthulakshmi R, Anithaashri T.P
17	93	End To End Comments Filtering Feature Using Sentimental Analysis	A. Sindhu,D. Jayakumar, S. Sasivardhini,M.O. Ramkumar,R. Rajmohan
18	99	Next-Gen Maritime Security By Leveraging Advanced AIS Analytics for Precision Detection and Monitoring Of Boats In Ocean	K.Keerthiga,Jolin Ashika J,M.Narmadha
19	105	Library Book Recommendation Chatbot Using Rasa NLU	Daniel Prem,Babita Prem, M. Roshni Thanka
20	112	Optimized Convolutional Neural Network Model for Software Effort Estimation	Priya Varshini A G,Anitha Kumari K, Ramprasath J, Sam Rishi R, Balakrishnan S, Deepak D
21	118	Classification of Alzheimer's Disease with Generated MRI Images Using Randomized CNN	Angeline Pearl G P,J. Anitha
22	124	Telugu Text Generation with LSTM	Deena Hijam, Saividhya Gottipati, Shaik Fardeen
23	130	Multilingual Sentiment Analysis for Youtube Educational Videos Using NLP And Machine Learning Approaches	Martina Jose Mary M,R.Shyamala Devi, Yogeshkannah K, Prem S, Pooranachandiran G, V.Viyash
24	136	Intelligent Data Storage In Electronic Voting Machine Using Blockchain System	S.Jaisiva,Suma Sira Jacob, Lijo Jacob Varghese, S.Dilip Kumar, R.Lakshana, R.Keerthana
25	141	A Comprehensive Review on Artificial Intelligence for Health Care	S.Sudha ,D.Anitha Kumari, Nirmal Raaghav N
26	146	A Unified Approach for Detecting Emotions through Sentimental and Emotional Analysis	Prabhu R,Muralidharan M,Sanjeevi K, Chandhru S

27	150	Sign Language Detecting System Using Tensorflow Object Detection API	A.S.Renugadevi,D.Kalaiabirami, Guhan R,Kaviya P,Kavinraj P N, Jayaprakash M,Jenish G.S
28	156	Smart Patrolling System Using Machine Learning	P.Megala,Prabhu R, Devi V,Yamini S
29	161	Comparative Analysis of Start-Up Success Rate Prediction Using Machine Learning Techniques	Mohammad Riyaz Belgaum,Ediga Kasi viswanath,Pavukolla Chakradhar,Ediga Chenna Kesava Goud,Kuruva Chandu
30	167	Automatic Android Malware Detection Using CNN and GRU	Soniya.S, Raghuraman.D, Shivani
31	173	Enhancing Image Translation with Conditional Generative Adversarial Networks	Shobhit Verma,Srishti Arora,Tanvi Kayat, Anurag Goel
32	179	Design and Analysis of a Novel Microbattery Using Multiphysics based on Artificial Intelligence Applications	Sandeep Mishra, Mayank Jaiswal, Kaustubh Kumar Shukla,Harshit Mittal,Sourabh Dubey,Bhupendra Kumar Sharma
33	185	Optimizing 3D Printing to Increase the Gain and Bandwidth of Microstrip Antennas: A Research on Implementation and Design	Sakshi Pandey,Sanghamitra V Arora,Kaustubh Kumar Shukla,Priyanka,A.Nivetha,Ashwani Chaudhary
34	190	Transformer-Based Approach for Predicting Student Admission Category in Higher Education	Vinothina V Bharathi V, Vignesh K, D Ravindran
35	195	A Novel Framework for Preserving Patient Health Record In IoT Healthcare	Mohammad Riyaz Belgaum,Priyanka Pothureddy,Sai Suraksha Patnam,Parimala Deepthi Gadda
36	200	Supply Chain Excellence: A Comparative Study of Amazon and Flipkart	L Sherin Beevi ,Joe Prathap, P. M,Kommi Sree Sai Chaithresh,W Vinil Dani, Mohammad Vajid Ahamed
37	206	IoT Based Satellite Balloon System for Live-Weather Forecast	A. Devi,Amirthasaravanan Arivunambi, S. Suvetha , S.Sasikala , P. Dharanyadevi ,B. Senthilnayaki
38	211	Analysing Depression in Social Media: A Study of Basic Deep Learning Algorithms and Transformer Model With a Comparative Approach	Anju Thankam Philip, Reshma Radhakrishnan Iyer, Nitha L
39	217	Financial Risk Prediction in E-Commerce: Leveraging Vampire Bat Optimization and Factor Analysis for Enhanced Decision-Making	Sailaja Nimmagadda, Rekha Murugan, Dhilipan C, K.Deepika,Iskandar Muda, A Balakumar
40	222	Monthly Rainfall Analysis In Southern Parts of India Using Machine Learning and Ensemble Methods	Aiswarya Mohan,Krishna Priya S, Remya Nair T
41	227	Detecting E-Bullying in Social Media Platform with Stacked BiLSTM Approach	Devika Thilakaraj, Gouri S Ajay, Leena Vishnu Namboothiri

42	233	Gender Fairness Analysis In LLMs Using Zero-Shot and Few-Shot Experiments	Keshav Gupta, Kartikeya Jain, Lakshay Solanki
43	239	Integrative Framework for Heart Failure Risk Assessment and Tailored Mitigation Strategies	Yuthish Kumar V, S. Goutham, Praveen Joe I R
44	245	Developing an Advanced Skin Disease Detection System by Integrating Hybrid Neural Network With Yolo V8 Model	S.Pavithra,K.Tamilarasi,Soham Shashidhar,Mohammad Shahzil
45	251	Exploring the Intricacies of Biometric ATM Operations, specifically focusing on The Integration of Fingerprint and Facial Recognition Using Deep Learning Tecniques.	Trupti Sunil Burkul,Sarita Patil
46	258	Job Recommendation System Based on Candidate Skills	Nakshatra Pramanik,Pritha Das, Riya Roy, Sauvik Bal
47	263	Optimizing Energy and Performance in Wireless Sensor Networks for IoT Applications Using CR-MSGT,SDN, and Gaussian Filters	R. Gomathi, Sathish K,Vethamoorthi V,Deepika R
48	270	Unveiling Anomalies: A Review of Anomaly Detection Through Lens of Explainable AI	Shikhar Asthana,Anurag Goel
49	276	Smart Truck Load Monitoring and Overload Prevention System with Ignition and Fuel Control	Vijaya Kumar S,Sagaya Selvaraj A, Dhinesh G, Arivalavan K
50	282	Design and Implementation of BIST Logic for High Speed and Energy Efficient CSLA	Garima Solanki, Sourav Agarwal,Tushar Mishra ,Vansh Khandelwal
51	287	Addressing Bias in Text-To-Image Generation: A Review of Mitigation Methods	Shah Prerak
52	293	Facial Recognition Robots for Enhanced Safety And Smart Security	C.Venkatesan,Sathish K, Bolla Naganwesh,D. Shaheen, Rishant Kumar Sinha,Musharraf Reza
53	299	Enhanced Real-Time Abnormal Event Detection In Video Surveillance for Safety and Security	C. Muralidharan, V. Arulalan,Kishore Anthuvan Sahayaraj K , Nishant Sheoran
54	304	Harnessing Advanced Learning for Sarcasm Detection	Prasanna Kumar M, Karthika Veeramani
55	309	A Comprehensive Analysis of Optimization of Task Scheduling Algorithms for IoT Applications In A Combined Environment of Cloud,Fog And Edge.	Sarumathi S,Vijayalakshmi K
56	N/A	Machine Learning Model for Real-Time Atmospheric Distortion Correction In Multispectral Satellite Imagery	Sivasakthi T,U.Palani, Hariviswanathan K, Vasanthi D,Devi A, Kaviya S

57	315	A Comprehensive Study on the Advances and Challenges in Visible Light Communication Technologies	Vijayakumari K,Anusudha. K
58	321	Investigation Of Octagon-Slotted Photonic Crystal for Wireless Technologies	D. Sathish Kumar, S. Lalithakumari, G. Rajalakshmi, R. Pandian, A. Sivasangari, S. Poonguzhali
59	326	Detection and Classification of Brain Tumor Using Machine Learning	Prachi V.Kale, A B Gadicha,G.D.Dalvi
60	332	A Comparative Study of House Price Prediction Using Machine Learning and Deep Learning Techniques	Hamsavathi V,DhivyaBarathi B ,Subiksha R,Venkatesan R,Rekha D
61	338	Vehicle And Building Detection Using Convolutional Neural Network for Drone Images	B. J. Dange, Amey Rajesh Avhad,Mayur More, Sairaj Bhakare, Sanket Aghav
62	344	Deciphering Key Genes in Colon Cancer through Deep Learning Techniques	M.Kalaivani,K.Abirami,K.Dharmarajan
63	350	AI-Powered Optimization: Revolutionizing 6G Networks for Efficiency and Performance	Tamilarasi.K,S.Pavithra, Ramya Rangarajan, Venyaa Venkataraman,Krithik Shankar.P
64	356	Monopole Elliptical Antenna With Double Triangular Slits for Ku Band Applications	P V N Lakshmi, Mahali Hari Priya,Lukka Kondalu,Mahanthi Mounika,Kalpamanu Sneha
65	N/A	Reinforcement Learning for Energy-Efficient Routing in Cognitive Wireless Sensor Networks	Jayapriya N,U. Palani,S. Kalpana,T. Sivasakthi
66	362	Implementing OTP Verification and Zero Trust Security for Role-Based Access Control In Medical Records	Harshini B V, Ulagarchana U, Perla Mounika,L. Mary Shamala
67	368	Comparative Analysis of Deep Convolution Neural Networks on Medical Image-Based COVID-19 Detection	R.Prabu,P.Dhinakar
68	373	An analysis Comparing CT And X-Ray Images for COVID -19 Identification employing Deep Learning and Image Processing Methods	R.Prabu,P.Dhinakar
69	378	A New Chaotic Jerk System Based Only On A Single Quadratic Equation Displaying Coexisting Attractors	R.Prabu,P.Dhinakar, S.Prakash, N.Gayathri
70	381	Enhanced Image Processing for Automobile Accident Detection Using Deep Learning	S.Usharani, J.Dhanushkumar ,P.Manju Bala, A.Balachandar
71	386	Prediction of Breast Cancer Survivability Using Semi Supervised Machine Learning Framework	Mousoomi Bora,Rupam Baruah
72	392	Intelligent Brain Tumor Detection Using Fine-Tuned EfficientNets	Abijah Roseline. S, SK. Md. Hussain Basha, R. Parkavi

73	398	Synthesis and Characterization of Nickel Aluminate-innovative a Green Path with Solid Acid Catalyst for Solvent Free Acylation Reaction	Santhanalakshmi.K,N.Neelakandeswari ,GomathiThandapani, Mohanapriya.N,M.Vinoth
74	404	Molecular Docking Studies of <i>Pisonia Grandis</i> against Herpes Simplex Virus: Insights from Computational Analysis	Vinoth M, A. Bobin, B. Rajagobalan,V. Rangaswamy,K. Santhanalakshmi
75	408	Live Video Stream Analysis in Real-Time Using Edge Enhanced Clouds	Elavarasi K, Kailash C
76	413	A Quasi-Z-Source Boost DC-DC Converter Coupled Inductor for PV Applications	Busireddy Hemanth Kumar, K. Ravi Teja, Bala Sundar Kammari, Vundela Jitendhar Reddy,Obulapathi.B, E Parimalasundar
77	418	Analysis of Nine Level Single-Phase Cascaded H- Bridge Inverters for Evs	E. Parimalasundar,S. Jayakumar,Hareesh Sita,R. Jayanthi,B. Hemanth Kumar,K. Suresh
78	424	Predicting Cyber-Attacks And Identifying Perpetrators Using Machine Learning Techniques	Geerthik S ,Senthil G. A,Tharagairani G , Sachin L , Dinesh Kumar S
79	429	Future Navigation Demand Trends: Accurate Ride Request Forecasting Optimization Using Machine Learning	Geerthik S,Senthil G. A , Illakiya G, Naveen Raj S, Arun Kumar B
80	435	An Automated Mood Analysis of Crying Infants Through Sound Recognition Using Hybrid Deep Learning	Senthil G. A,Geerthik S ,G. Tharagarani ,Subiksha P,Sabthami B
81	441	Deep Learning-Based Detection of Foliar Diseases In Apple Plants Using an Assembled CNN Model	Yatendra Sahu,Arpita Bhargava,Ghanshyam Singh Thakur, Rishi Jain
82	447	U-Net Based Pancreas Segmentation From Computed Tomography Images	Tirumalasetti Devendhar,Lakshmi Priya B,S.Jayalakshmy
83	452	An Analysis of Frequency Response In Integrated Power System Using Power Electronics Controller Tuned With Whale Optimization Technique	Somnath Ganguly,Joon-Ho Choi,Joyti Mudi, S. Kundu, Alope Kumar Roy,V. Mukherjee
84	457	Cardio Care: A Predictive Model for Heart Disease Detection	Rohith R, B. Senthilnayaki ,M. Joshua Dayalan
85	463	EHR Based Prediction and Diet Recommender for Diabetes Using Blockchain	Poonguzhali N,Amarabalan.N
86	469	Z-Number and DEMATEL-Based Scheme To Enhance Energy-Efficient Workflow Scheduling and Virtual Machine Consolidation for Green Cloud Computing	V.Divya,J.Malathi,M.Rajeswari,D.Senthil Kumar,Parvathi S,G.Mugunthan
87	475	Hybrid Spotted Hyena and Simulated Annealing Optimization Algorithm (HSHOSAA-1) for Efficient Task Scheduling In a Clustered Cloud Environment	T.B Sivakumar,L.Maria Michael Visuvasam,V. Sangeetha,S.Bhuvana,K.Sathish Kumar,K.Sachet
88	481	Comparative Analysis of Machine Learning Algorithms for Early Detection of Chronic Kidney Disease: Performance Evaluation and Insights	J. Joan Niveda,R. Yogesh Rajkumar



89	487	Optimized Bidirectional Long Short - Term Memory Model for Distributed Denial of Service Attack Detection in Wireless Sensor Networks	K.Poongodi, S.Mithuna , S.Rajkumar
90	493	Hybrid Fuzzy Logic Interface PI Controller (HFLPIC) to Enhance Power Conversion Efficiency in an Autonomous Microgrid	Punitha,S,N.P. Subramaniam,P. Ajay D Vimal Raj
91	499	Indian Currency Classification for Visually Impaired People Using Deep Learning	Kogilavani Shanmugavadivel,Aiswarya M,Aruna T, Jeevaanath S
92	505	Gamma Z Source Multilevel Inverter for Photovoltaic Systems	T. Rampradesh,V. Logesh,K. Vijay
93	511	Hybrid Approach of CNN & RNN for Breast Cancer Detection and Segmentation	P. Manju Bala,S. Priyadarshini,S. Usharani ,A. Balachandar
94	517	Smartwatch-Powered Vehicle Navigation on Unmapped Terrain	Arundhathi T,Priyadarshini R, Priyanka G ,Vatturi Harshitha ,Kavitha Subramani,Jaba Sheela L
95	522	Spider Wasp Optimisation for Effective IoT Task Placement in Cloud - Fog Networks	R Baskar, R Gopinath, Vijhayalakshme R
96	528	The Impact of Devops on Software Quality	Shubham,Lalit Mohan Saini
97	534	Empowering Coders: Revolutionizing Programming Education With NLP and Challenge-Based Learning	C. Tamilselvi, Angel Maanu P, Anush Priya T, R.Kalaiyarasi, Nithiyasree P,Mohanaprakash T A
98	540	Efficient Net Approach for Skin Cancer Detection for Early Intervention	T.Jackulin, U.Regasri,P.Angel Maanu ,KavithaSubramani,S.Sharmila,M.DharshanaSri
99	546	Parsed Region Feature Extraction Method for Hepatocellular Carcinoma Detection Using Medical Images	T Thangam,A.Kaleel Rahuman,J.G.Sabarish,S.Sudhakar,P.Jeyalakshmi
100	552	Real Time Tool Defect Detection Systems	V Velmurugan, B.Elamvazhudi, S.Kulothungan,C. Manimaran
101	558	Surveillance Robots for Industry 4.0	C.Manimaran,B.Elamvazhudi, S.Kulothungan, V.Velmurugan