2023 International Conference on **Recent Advances in Information Technology for Sustainable Development (ICRAIS 2023)**

Manipal, India 6 – 7 November 2023



IEEE Catalog Number: CFP23SZ0-POD ISBN:

979-8-3503-0664-4

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:
 CFP23SZ0-POD

 ISBN (Print-On-Demand):
 979-8-3503-0664-4

 ISBN (Online):
 979-8-3503-0663-7

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



CONTENTS

Messages		iii-xii		
Conference Committee		xiii-xiv		
Technical Program Committee Members and Reviewers		xv-xix		
Sl. No.	Title of the Paper	Page No.		
	TRACK 1: Communication			
1	Building Resilient Rural Communities: Participatory Approaches in Khattukhal Village for Sustainable Development Yila Caiaphas Makadi, Ashok Gadde, Aniket Patel, Tarun Adusumilli, Suchal Paladugu, Srikar Sankranti, Souresh Cornet	1-7		
2	Performance Evaluation of IRS-Assisted Cooperative Relaying for Next Generation Wireless Communication Systems <i>Yashaswi Nayak, Pankaj Kumar, Nikita Goel, Santhosh Kamath</i>	8-13		
3	Knee Osteoarthritis Prediction Using Deep Learning Harish H, Anita Patrot, Bhavan S, Gousiya S, Livitha A	14-19		
4	Capacity Improvement of Cell Edge Users Using EI-SC Scheme V Angayarkanni, P Rama, M K Vidhyalakshmi	20-24		
TRACK 2: Distributed Computing				
5	An Interactive Framework For Querying Data From Large Pdf Files Vishnu B V, Sharath S Rao, Netravathi B	25-30		
6	Integration of Cloud-Sensor Based Framework for Predictive Analysis for Accelerating Knowledge Gain in Agriculture Sneha N, Meenakshi Sundaram, Rajeev Ranjan	31-36		
7	Internet of Animal Health Things (IoAHT) Framework for Clinical Mastitis Detection in Dairy Cows Ankitha K, Venugopala P S, Harish Kunder, Ankitha Shetty	37-42		
8	Detecting Crops and Weeds in Fields using YOLOv6 and Faster R-CNN Object Detection Models Srikanth Bhat K, K Annapoorna Shenoy, Moulya R Jain, Manasvi K	43-48		
9	Closed-loop AUV Temperature Control using Internet of Underwater Things-based multi-node underwater communication Rinika Paul, Deepa K.	49-53		
10	Machine Learning Approaches to Predict the Teams for Fantasy Leagues Shweta Chauhan, Rahul Kumar, Bibek Kumar	54-58		

	TRACK 3: Information Security	
11	Security Implications on Container Clouds Mohan Kumar T G, Karthik D U, Samarth S J, Rajath R, Niyati V	59-64
12	Design Of Hybrid Model Based On Chaotic Map To Secure The Images Afiya Amjed, Jalesh Kumar	65-70
13	A Framework for Encryption and Decryption using Image Steganography Balajee Maram	71-76
14	A Comparative Study of Feature Extraction Methods in Image Classification using Convolution Neural Network Model Divya Jennifer Dsouza, Anisha P Rodrigues	77-82
15	Machine Learning for the Exposure of Malicious URLs Bhagyashri R Hanji, R Kanagavalli	83-88
16	A user-centric self-sovereign identity-based authentication framework for decentralized data management in healthcare settings Chetana Pujari, Balachandra Muniyal, Chandrakala C B, Muttukrishnan Rajarajan	89-94
17	Spam Sentinel: Revolutionizing Email Protection Using Machine Learning Techniques Prathyakshini, Jyothi Shetty	95-100
18	Live audio steganography using LSBWAB to covertly communicate secret data Namitha M V, Manjula G R	101-105
19	An Adaptive Steganography Approach for Live Video Streams Based on Edge Analysis and Frame Variability Sushma R B, Manjula G R	106-111
20	Privacy Preserving Techniques and Deployment Types in Unmanned Aerial Systems Sudhina Kumar G K, Krishna Prakasha K, Balachandra Muniyal, Veniamin Boiarkin, Muttukrishnan Rajarajan	112-117
	TRACK 4: Soft Computing	1
21	Fake News Detection Using Optimized Deep learning model through effective feature extraction. Arati Chabukswar, P Deepa Shenoy, Venugopal K R	118-123
22	Investigation of malware & threat analysis on APKs using SVM & ANN algorithm - A new approach <i>Rahul R, Lithin</i> Kumble	124-128
23	ClothFormer - A Boundary Aware Self-attention Network for Human Outfit Parsing Vurimi Bhanu Pranay, Nischal D S, Bhargav Kumar Nammi, Shiv Kumar, Abhilash S K	129-134

24	DCSP-RCNN: A Network for Person Detection with Color, Size and Pattern Characteristic Parsing Abhilash S K, Nischal D S, Shiv Kumar, Venu Nookala, Karthik S	135-140
25	Ensemble-based Hybrid Model for Accurate Brain Tumor Classification using MR Images Tejashwini P S, Mohammed Danish Rabbani, Harishankara H V, Thriveni J, Venugopla K R	141-146
26	Anemia Identification from Blood Smear Images Using Deep Learning: An XAI Approach Sneha Sajith, Pooja A, Theertha Ramesh, Parvathi Rajpal, Roshna A R, Javed Ahammad, Asjad Nabeel P	147-152
27	A Novel Implementation of a Cohesive Regional Language Tweet Translator H D Nandish, Rahul R, T K Luchingba, Neelima N	153-159
28	English to Konkani Translator using Hindi as a Pivot Language B Sunil Kamath, Chaithanya Kumar D N, Ashwin M Pai, Alden Morris, Chemnad Abdul Nassir Shazin	160-165
29	Enhancing the Healthcare by an Automated Detection Method for PCOS using Supervised Machine Learning Algorithm Ajil A, Anooja Ali, Ramachandra H V, Meenakshi Sundaram A, TousifAhamed Allabksha Nadaf	166-170
30	Japanese Language Review Mining using Translators, Word Embedding and ML Techniques Ramanna T, P Deepa Shenoy, Venugopal K R	171-176
31	The Usability Assessment Of The Computer-Assisted Sensory-Motor Vision Therapy Module For Children With Cerebral Palsy Radhika R P, Bhamini Krishna Rao, Kalyanpur Rajat Shenoy, Shonraj Ballae Ganeshrao, Vishwas G Kini, Siddalingaswamy P C	177-181
32	Predicting Citrus Limon Maturity with Precision using Transfer Learning Sannidhan M S, Jason Elroy Martis, Suhas M V, Sunil Kumar Aithal S	182-187
33	Multi-Robot Path Planning Using Nash Equilibrium based Game Theory Priyadharshini S, Supriya P	188-194
34	GNN based Trainable Dependency Parser Mahimanjali Lolla, Ayush Barik, Bindu K R	194-200
35	Approaching Explainable Artificial Intelligence Methods in the Diagnosis of Iron Deficiency Anemia Using Blood Parameters <i>Uhma Ponnusamy, Dhruva Darshan B S, Niranjana Sampathila</i>	201-206
36	Automated Rice Analysis for Sugar Content and Dietary Recommendation Mokshil Tandel, Reetu Jain	207-211

37	Named Entity Recognition using BERT Model for Kannada Language Shriya Hebbar, Ashwath Rao B, Muralikrishna S N, Musica Supriya, Narendra V G, Sobha L	212-216
38	Long Short Term Memory Based Sign Language Detection System Ahaan Shah, Keyaan Shah, Vinay Vishwakarma	217-221
39	De-screening low resolution halftone printed portrait images Biswajit Halder	222-227
40	Enhancing Object Detection and Tracking From Surveillance Video Camera Using YOLOv8 Ambati Sahithi, Bejugam Sai Teja, Chikili Vishwas Shastry, Chedurupally Venugopal, C H Rajyalakshmi	228-233
41	Detecting fetal brain abnormalities using Deep Learning Technique Samhita Shivaprasad, Sharisha Shanbhog, Jeevan Medikonda	234-238
42	Detecting Facial Expressions and Recognition in a Mask Wear Person Ratnalata Gupta, Shraddha Sharma, Mamta Anand	239-244
43	Bone age estimation of Pediatrics by analyzing hand X-rays using Deep learning Technique Anisha Palkar, Sharisha Shanbhog, Jeevan Medikonda	245-249
44	Customized CNN model for Alzheimer's disease stages classification and comparison with Transfer Learning Sindhu B, Rishitha Prasad, Ashwini Kodipalli, Kumar Swamy S, Trupthi Rao	250-255
45	Estimating The Surface Roughness of a Drilled Surface Using the Edge Detection Technique Shilpa Karegoudraa, Vamsidhar Yendapalli	256-259
46	An Efficient and robust ALPR Model using YOLOv8 and LPRNet D Abdus Subhahan, S Raga Divya, U Kavya Sree, T Kiriti, Y Sarthik	260-265
47	Diseases Identification Using ConvNet In Sugarcane Crops Apsana M Kotekan, Vidhyashri S Kakaraddi, Anil R Jamakhandi	266-270
Author Index		271-274