2022 International Conference on **Machine Learning, Computer Systems and Security** (MLCSS 2022)

Bhubaneswar, India 5-6 August 2022



IEEE Catalog Number: CFP22DA6-POD ISBN:

978-1-6654-5494-0

Copyright © 2022 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:
 CFP22DA6-POD

 ISBN (Print-On-Demand):
 978-1-6654-5494-0

 ISBN (Online):
 978-1-6654-5493-3

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



2022 International Conference on Machine Learning, Computer Systems and Security (MLCSS) MLCSS 2022

Table of Contents

Message from the General Chair	
Message from the Program Chair	
Organizing Committee	
Machine Learning	
Stock Price Prediction Using Machine Learning	3
Detection of Diabetic Retinopathy Based on Various Machine Learning Algorithms and Histogram Equalization	6
Premananda Sahu (SRMIST, India), Srikanta Kumar Mohapatra (Chitkara University Institute of Engineering and Technology, Chitkra University, India), Prakash Kumar Sarangi (Vardaman College of Engineering and Technology, India), Suraj Srivastava (Chitkara University Institute of Engineering and Technology, Chitkra University, India), and Santosh Kumar Sharma (CV Raman Global University, India)	
Enhanced Machine Learning Algorithms for Validating the Biometrics in VANET Premkumar Chithaluru (Koneru Lakshmaiah Education Foundation (KLEF), India), Lambodar Jena (Koneru Lakshmaiah Education Foundation (KLEF), India), Bichitrananda Patra (Siksha 'O' Anusandhan (Deemed to be) University, India), and Niranjan Panda (Siksha 'O' Anusandhan (Deemed to be) University, India)	11
A Comparative Study Using Next Generation Sequencing Data and Machine Learning Apfor Crohn's Disease (CD) Identification	

Neural Network Based Student Grade Prediction Model
Yagyanath Rimal (Pokhara University, Nepal), Vijay Singh Rathore (IIS (Deemed to be University), India), Sakuntala Pageni (Tribhuvan
University PNC, Nepal), Debabrata Samanta (CHRIST (Deemed to be University), India), Marimuthu Karuppiah (SRM Institute of Science and Technology, India), and Debabrata Singh (SOA University, India)
Heart Disease Prediction Using Feature Selection and Machine Learning Techniques
A Supervised Approach For Superpixel Segmentation
Software Defect Prediction: A Comparative Analysis of Machine Learning Techniques
Machine Learning Approaches in Medical Image Analysis of PCOS
Tomato Leaf Disease Detection Using Neural Networks
Research on Energy Saving Control of Building Central Air Conditioning Based on Neural
Network
Data Mining & Data Science
Forex Prediction Through Financial Trend Analysis
Image-Based Food Calorie Estimation Using Incremental Learning

Generating Higher Order Mutants Using PSO with Levy Flight (LFPSO) Algorithm	'5
An Intelligent Virtual System Relocation Based Prediction Model for Optimal Resource Control in Vehicular Cloud	SC
The Overview of the Relevance of Virtual Reality And its Applications in Education	6
Semantic Segmentation of Cells in Microscopy Images via Pretrained Autoencoder and Attention U-Net	14
Faster & Smoother Detection of Forest Fire Using YOLO v3	IC
Hand Gesture Detection Using Convexity Hull and Convolutional Neural Network	15
Analysis of Histogram and Energy Curve Based Thresholding Using Cuckoo Search	1
GIS and Cloud Based Model for Urban Parking Management: A Case Study of Bhubaneswar 11 Sarita Mahapatra (Siskha 'O' Anusandhan Deemed To Be University, India), Krishna Chandra Rath (Utkal University, India), and Satya Ranjan Das (Siskha 'O' Anusandhan Deemed To Be University, India)	7

A Modified CNN Model for Brain Tumor Detection	.65
IoT for Smart Healthcare: Opportunities, Challenges and Technology	.71
Classification of Pulmonary Tuberculosis Using Mathematical Modeling and Machine Learning 1 Subhalaxmi Das (Utkal University, India), Sateesh Kumar Pradhan (Utkal University, India), Sujogya Mishra (Odisha University of Technology and Research), Narayan Patra (SoA Deemed to be University), and Sipali Pradhan (RBVRR Women's College, India)	.76
An Ensemble Approach to Predict Acute Appendicitis	.83
A Healthcare Data Analysis Approach for Breast Cancer Gene Expression	.89
Data Augmentation and its Application in Histopathological Oral Cell Image Classification	.94
An Optimized Ensemble Model for COVID Detection	.99
A Novel COVID-19 Predictor Model Inspired by Flower Pollination Algorithm	<u>'</u> 04
ResNet50V2: A Transfer Learning Model to Predict Pneumonia with chest X-ray Images	208

Medical Datasets Classification Using a Hybrid Genetic Algorithm for Feature Selection Based on Pearson Correlation Coefficient	214
Santosh Kumar (Siksha 'O' Anusandhan deemed to be University, India), Bharat Bhushan (Sharda University, India), Lekha Bhambhu (CUIET, India), Mamta Thakur (BITT, India), Usha Manasi Mohapatra (GM University, India), and Dilip Kumar Choubey (IIIT, India)	. 214
Classification of Symptoms for Malaria Using Soft Computing Method Subrata Kumar Nayak (GVHSS, Sishu Ananda Mahavidyalaya, India), Sateesh Kumar Pradhan (Utkal University, India), Sujogya Mishra (Odisha University of Technology and Research), Narayan Patra (Institute of Technical Education and Research, SoA Deemed to be University, India), and Sipali Pradhan (RBVRR Women's College, India)	219
Prognosis Prediction of Muscle Invasive Bladder Cancer Based on Whole Slide Images	. 224
Stability Analysis of COVID-19 SEIQR Model with Infectivity in Latent Period	. 229
Study on the Psychological Stress Biofeedback Training System Based on Multiple Physiological Parameters	. 233
Natural Language Processing	
Building Ontology for Toxic Words	241
Survey and Evaluation of Extreme Learning Machine on TF-IDF Feature for Sentiment Analysis Manpreet Kaur (Faculty of Engineering (ITER), SOA University, India), Dibyasundar Das (Faculty of Engineering (ITER), SOA University, India), and Smita Prava Mishra (Faculty of Engineering (ITER), SOA University, India)	. 247
EQGTL: An Ensemble Model for Relevant Question Generation Using Transfer Learning	. 253
Sentimental Analysis of Amazon Customers Using Deep Learning Techniques Shashank Kumar (Siksha 'O' Anusandhan Deemed To be University), Rithik Raj Sahoo (Siksha 'O' Anusandhan Deemed To be University), Rahul Mahapatro (Siksha 'O' Anusandhan Deemed To be University), Sagar Awasthi (Siksha 'O' Anusandhan Deemed To be University), and Sipra Sahoo (Siksha 'O' Anusandhan Deemed To be University)	259

CNN Based Handwritten Odia Character Recognition	267
An Empirical and Comparative Study of Graph Based Summarization Algorithms	274
Real Time CNN Based Facial Emotion Recognition Over Standard Optimizers Anubhav Tewari (Presidency University Yelahanka, India), Nibedan Panda (KIIT Deemed to be University, India), and Ajit Kumar Mahapatra (Institute of Technical Education and Research, Siksha 'O' Anusandhan (Deemed to be) University, India)	280
Modi Handwritten Characters Recognition Using Deep Learning Algorithm	285
Challenges and Approaches of Code-Mixed Hate Speech Detection Swayam Samparna Dash (ITER, Siksha 'O' Anusandhan (Deemed to be University), India) and Nikunja Bihari Kar (ITER, Siksha 'O' Anusandhan (Deemed to be University), India)	290
Uncertain Ontology Model for Knowledge Representation and Information Retrieval Using Decision Rules	296
Name Entity Recognition on Covid-19 Dataset Using Machine Learning Algorithms Tamalika Dey (Sister Nivedita University), Joita Dey (Sister Nivedita University), Anusmita Ghosh (Sister Nivedita University), Swarup Kr Ghosh (Sister Nivedita University), Mukta Majumder (North Bengal University), Sanjoy Mondal (Siksha 'O' Anusandhan Deemed to be University), and Anupam Ghosh (Netaji Subhash Engineering College)	301
Sensor Network & IOT	
Ethereal Networks and Honeypots for Breach Detection Sourav Mishra (Indian Institute of Information Technology Allahabad, India) and Vijay K Chaurasiya (Indian Institute of Information Technology Allahabad, India)	309
A Comparative Analysis on Traffic Flow Prediction	318

Statistical Validations on Energy Efficient Routing Protocols to Improve the Performance of Wireless Sensor Network	325
Harmony Search Algorithm Based Buffer Management in Delay Tolerant Networks	331
A Comprehensive Survey on Routing Protocol Based On Sink Mobility in Wireless Sensor Network	336
Priyanjana Mitra (University of Calcutta), Sumit Kumar (Siksha 'O' Anusandahn Deemed to be University), and Sanjoy Mondal (Siksha 'O' Anusandhan Deemed to be University)	
Frequency Stability Analysis of an Isolated Micro Grid System Narendra Kumar Jena (Siksha O Anusandhan Deemed to be University, India), Suhadra Sahoo (Siksha O Anusandhan, Deemed to be University, India), Chinmayee Biswal (Siksha O Anusandhan, Deemed to be University, India), and Binod Kumar Sahu (Siksha O Anusandhan, Deemed to be University, India)	342
Design of Intelligent Light Control System Based on NB-IoT	346
Security & Trust	
TCSFANET: Trusted Communication Scheme for FANET System	353
Solving Kickstarter Scam Problem by Using Blockchain	358
Impact of Clustering Technique in Enhancing the Blockchain Network Performance	363
Physically Unclonable Function (PUF) a Lightweight Security Primitive for IoT: Scope and Challenges	368

Comparative Analysis of Machine Learning Approaches in Smart Agriculture	4
Security and Privacy Preserving Online Student Feedback Management System	9
V-Crypto Images/Videos/Texts by Two Key Authentication Using ACO Algorithm Technique 38 Janaki Raman Palaniappan (Software Professional, USA)	7
Xception Net & Vision Transformer: A Comparative Study for Deepfake Detection	3
Author Index	9