

# **2022 IEEE International Conference on Blockchain and Distributed Systems Security (ICBDS 2022)**

**Pune, India  
16-18 September 2022**



**IEEE Catalog Number: CFP22AY5-POD  
ISBN: 978-1-6654-2833-0**

**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:	CFP22AY5-POD
ISBN (Print-On-Demand):	978-1-6654-2833-0
ISBN (Online):	978-1-6654-2832-3

**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](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

## TABLE OF CONTENTS

Virtual Mouse using Hand Gesture Recognition - A Systematic Literature Review.....	1
<i>Renuka Annachhatre, Miti Tamakuwala, Prathamesh Shinde, Abhisha Jain, Pradnya V. Kulkarni</i>	
Adoption of Blockchain of Things(BCOT): Oppurtunities & Challenges .....	7
<i>Abhay Kumar Yadav, Virendra Prasad Vishwakarma</i>	
Face Mask Detection Under the Threat of Covid-19 Virus.....	12
<i>B. J. Dange, S. S. Khalate, D. B. Kshirsagar, S. N. Gunjal, H. E. Khodke, T. Bhaskar</i>	
Fusing Clustering and Machine Learning Techniques for Big-Mart Sales Predication .....	18
<i>S. N. Gunjal, D. B. Kshirsagar, B. J Dange, H. E Khodke</i>	
Cognitive Intelligence of a Cloud-Based Internet of Things in Precision Agriculture Applications.....	24
<i>Rahul Keru Patil, Suhas Shivlal Patil</i>	
A Distributed Agent-Oriented Framework for Blockchain-Enabled Supply Chain Management .....	30
<i>Satyananda Swain, Manas Ranjan Patra</i>	
Internet of Things Based Controlled Environment for the Production of Shiitake Mushroom .....	37
<i>Ntivuguruzwa Jean De La Croix, Mukanyiligira Didacienne, Sibomana Louis, Jesslyn Theresia Philander, Tohari Ahmad</i>	
BASDB: Blockchain Assisted Secure Outsourced Database Search.....	43
<i>Partha Sarathi Chakraborty, Puspesh Kumar, Mangesh Shivaji Chandrawanshi, Somanath Tripathy</i>	
Deepfake Video Detection using Neural Networks.....	49
<i>Mayur Jiwtode, Aman Asati, Shailesh Kamble, Lalit Damahe</i>	
Online Storage, Retrieval & Authentication of Healthcare Documents using Ethereum Blockchain .....	54
<i>Sai Sleghana Bala, Bhavya Prasad, Anjali Maruti Jadhav, Kumud Wasnik</i>	
Transparency in Carbon Credit by Automating Data-Management using Blockchain .....	60
<i>Shubham Chakraborty, Abhishek Anand, Divya Kalash, Anupam Srivastava</i>	
Performance Evaluation of Proof of Scope Consensus Mechanisms on Hyperledger .....	65
<i>Avinash Kshirsagar, Vinod Pachghare</i>	
Face Mask Detection and Recognition System .....	69
<i>Sonali Gaiki, Hrucha Deshmukh, Sanjana Gore, Ramya Maddipati, Shailesh Kamble</i>	
Blockchain-Based User-Centric Electronic Health Record Management System.....	77
<i>Anjali Mudaliar, Yukta More, Atharv Kulkarni, Lalkrishna Joshi, Deptii Chaudhari</i>	
Integrating Comparison of Malware Detection Classification using LGBM and XGB Machine Learning Algorithms .....	83
<i>Amogh Shukla, Gautam Chettiar, Ayush Choudhary, Ayush Thakur, Shubham Kumar</i>	
Prediction of Cryptocurrency using LSTM and XGBoost .....	90
<i>Pnrl Chandra Sekhar, M Padmaja, Biswajit Sarangi, Aditya</i>	

Secured E-Market Auction for Advertisement Slots using Blockchain .....	95
<i>Mithun C, Sakthivel M, R Anand</i>	
Implementation of Blockchain Based Electronic Health Record System using Java Eclipse and MongoDB.....	100
<i>Mehar Nasreen, Sunil Kumar Singh</i>	
Security in IP-Based IoT Node and Device Authentication .....	106
<i>Shilpa B. Sarvaiya, D. N. Satange</i>	
Hybrid & Efficient Charging of Electric Vehicles .....	111
<i>Manoj Saini, Shagufta Khan, Vipul Dutt Mishra, Manav Mehra, Deeksha Singh, Gopal Sengar</i>	
De-Centralized Voting System using Blockchain .....	117
<i>Atharva Jangada, Nimish Dadlani, Sanchit Raina, Vs Sooraj, A. R. Buchade</i>	
Analysis of Various RPL Protocol Objective Functions for Quality of Service Parameters.....	122
<i>Sharwari Solapure, Harish Kenchannavar, Umakant P. Kulkarni</i>	
Design of Neural Network Assisted Blockchain Based Peer-To-Peer Electrical Energy Trading Platform.....	127
<i>Manish Kumar Thukral</i>	
Doc-Chain: A University Document Verification Blockchain .....	140
<i>Rohan Shinde, Sahil Chorghe, Keval Dhanani, Abhijeet Salunke</i>	
Brain Tumor Detection using MLops and Hybrid Multi-Cloud.....	145
<i>Archit Jain, Adarsh Malviya, Disha Bajaj, Revati Bhavsar, Amit Savyanavar</i>	
Lightweight Auditable Secure Cloud Storage with Privacy Enabled Data Storage Optimization .....	151
<i>Subhash Rathod, Ratnashil N. Khobragade, Vilas M. Thakare, K. H. Walse, Sushama Pawar</i>	
Decentralized Fundraising Application using Blockchain .....	157
<i>Rishi Dange, Aditya Sawant, Aditya Chavan, Preerna Bhardwaj, Ashwini Bundele</i>	
Internet of Vehicles System Based on Blockchain.....	162
<i>Falguni Anil Jagtap, Anjali R Askhedkar</i>	
Background Verification of Employees using Blockchain.....	172
<i>Vanshika Jain, Suyash Khade, Hardik, Abhishek Kumar Yadav, Shraddha Bhagawat, Manish P. Kurhekar</i>	
Blockchain Based Secure and Effective Authentication Mechanism for 5G Networks.....	178
<i>R Bala, R Manoharan</i>	
Feature-Based Intrusion Detection System with Support Vector Machine .....	184
<i>Manish Khodaskar, Darshan Medhane, Rajesh Ingle, Amar Buchade, Anuja Khodaskar</i>	
A Deep Dive into Blockchain-Based Smart Contract-Specific Security Vulnerabilities .....	191
<i>Rohini Pise, Sonali Patil</i>	
Optimism or Pessimism: Is Blockchain Technology Helping the Healthcare Industry?.....	197
<i>Sachin Upadhye, Satyajit Uparkar, Arvind Bhave, Prafulla O. Bagde</i>	

Deep learning-Based Real-Time Malicious Network Traffic Detection System for Cyber-Physical Systems.....	203
<i>Pranjal Mistry, Ameya Rathi</i>	
NER in Hindi Language using Transformer Model:XLM-Roberta.....	212
<i>Aditya A Choure, Rahul B Adhao, Vinod K Pachghare</i>	
Secure and Supportable Application for Visually Challenged Person .....	217
<i>Soham S. Patil, Shachi Vaidya</i>	
Information Security by Hiding Data in Binary Images Based on Block-Diagonal Partition Pattern .....	221
<i>Gyankamal Chhajed, Bindu Garg</i>	
A Machine Learning Approach to Analyze Road Accidents.....	227
<i>Amit Kumar Goel, Kashaf Khan, Anmol Kushwaha, Vartika Srivastava, Sharyar Malik, Anjali Singh</i>	
Model for Efficient Data Storage on Public Cloud.....	232
<i>Subhash Rathod, Ratnashil N. Khobragade, Vilas M. Thakare, K. H. Walse, Sushama Pawar</i>	

**Author Index**