1. Record Nr. UNINA9910743230303321

Titolo	Cyber security, privacy and networking : proceedings of ICSPN 2021 / / edited by Dharma P. Agrawal [and three others]
Pubbl/distr/stampa	Gateway East, Singapore : , : Springer, , [2022] ©2022
ISBN	981-16-8663-7 981-16-8664-5
Descrizione fisica	1 online resource (404 pages)
Collana	Lecture Notes in Networks and Systems ; ; v.370
Disciplina	005.8
Soggetti	Computer networks - Access control Computer security Data privacy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Organization -- Preface -- Contents -- Editors and Contributors -- A New Modified MD5-224 Bits Hash Function and an Efficient Message Authentication Code Based on Quasigroups -- 1 Introduction -- 1.1 Hash Function Without a Key -- 1.2 Hash Function with Key or HMAC -- 2 Preliminaries -- 2.1 Quasigroup -- 2.2 Optimal Quasigroups -- 2.3 Brief Description of MD5 -- 3 Proposed Schemes -- 3.1 Quasigroup Expansion (QGExp) Operation -- 3.2 Quasigroup Compression (QGComp) Operation -- 4 Implementation and Software Performance -- 5 Security Analysis -- 5.1 Analysis of QGMD5 -- 5.2 Collision Resistance -- 5.3 Avalanche Effect -- 5.4 Analysis of QGMAC -- 6 Conclusions -- References -- Leveraging Transfer Learning for Effective Recognition of Emotions from Images: A Review -- 1 Introduction -- 2 Contributions by Researchers on Human Facial Emotion Recognition -- 2.1 Feature Extraction Methods -- 2.2 Classification -- 2.3 Transfer Learning -- 3 Methodology -- 3.1 Dataset -- 3.2 Data Preprocessing -- 3.3 Model Architectures -- 3.4 Experimental Study -- 4 Experimental Study and Comparison -- 5 Conclusion and Future Work -- References -- An Automated System for Facial Mask Detection and Face Recognition During COVID-19

Pandemic -- 1 Introduction -- 2 Related Work -- 3 Methodology -- 3.1 Image Preprocessing -- 3.2 Deep Learning Architecture -- 3.3 Face Recognition Module -- 4 Algorithm Used in Proposed model -- 4.1 Convolutional Neural Network (CNN) -- 4.2 Haar Cascade Algorithm -- 5 Limitations and Future Works -- 6 RESULTS -- 6.1 Face Mask Detection Module -- 6.2 Face Recognition Module -- 7 Conclusion -- References -- ROS Simulation-Based Autonomous Navigation Systems and Object Detection -- 1 Introduction -- 2 Related Work -- 3 Robot and Environment -- 4 Software and Platforms -- 4.1 ROS -- 4.2 RDS -- 4.3 RVIZ -- 5 ROS Autonomous Navigation.
5.1 Map Creation -- 5.2 Localization -- 5.3 Path Planning -- 6 Object Detection -- 7 Results -- 7.1 Room Map Creation -- 7.2 Object Detection -- 7.3 Navigation -- 8 Conclusion and Further Work -- References -- Robotic Assistant for Medicine and Food Delivery in Healthcare -- 1 Introduction -- 2 The Robot -- 2.1 The Mechanical Implementation -- 2.2 Omnidirectional Wheels -- 2.3 Inverse Kinematic Model -- 3 Control system of the robot -- 3.1 Rotary Encoders -- 3.2 Proximity Sensors -- 3.3 Gyroscope -- 4 Testing of the Robot -- 5 Future work -- 6 Conclusions -- References -- Privacy-Preserving Record Linkage with Block-Chains -- 1 Introduction -- 2 Related Work -- 3 Proposed Approach -- 3.1 Privacy-Preserving Record Linkage -- 3.2 Partial De-identification at Source -- 4 System Design -- 4.1 Service 1 -- 4.2 Service 2 -- 5 Performance Analysis -- 6 Security Analysis -- 7 Conclusion -- References -- Performance Analysis of Rectangular QAM Schemes Over Various Fading Channels -- 1 Introduction -- 2 Rectangular Quadrature Amplitude Modulation -- 3 Error Probability Analysis for RQAM Over Fading Channels -- 3.1 Rayleigh Fading Model -- 3.2 Rician Fading Model -- 3.3 Nakagami-m Fading Model -- 3.4 Log-Normal Fading Model -- 4 Simulation and Results -- 5 Conclusion and Future Work -- References -- New Symmetric Key Cipher Based on Quasigroup -- 1 Introduction -- 2 Preliminaries -- 2.1 Latin Squares -- 2.2 Quasigroup -- 2.3 Encryption and Decryption Using Quasigroups -- 2.4 Advanced Encryption Standard -- 3 Proposed Cipher Algorithm Structure -- 3.1 Quasigroup Selection -- 3.2 Keystream Generation -- 3.3 Encryption Algorithm -- 3.4 Decryption Algorithm -- 4 Security Analysis -- 4.1 Statistical Test for Randomness -- 5 Conclusion -- References -- Validate Merchant Server for Secure Payment Using Key Distribution -- 1 Introduction.
1.1 The Objectives of the Proposed Work Are -- 2 Related Works -- 3 System Model -- 3.1 Bilinear Mapping -- 3.2 Merchant Server Registration Process -- 3.3 Admin Server Process -- 3.4 Payment Request from Mobile User -- 3.5 Cloud Matching Process -- 4 Security Analysis of System Model -- 4.1 Man-in-Middle Attack -- 4.2 Impersonation Attack -- 5 Performance Analysis -- 6 Conclusions and Future Works -- References -- Extractive Text Summarization Using Feature-Based Unsupervised RBM Method -- 1 Introduction -- 2 Literature Survey -- 3 Proposed Methodology -- 3.1 Data Pre-processing -- 3.2 Feature Extraction -- 3.3 Restricted Boltzmann Machine -- 3.4 Summary Generation -- 4 Result and Discussion -- 5 Conclusion -- References -- Depression and Suicide Prediction Using Natural Language Processing and Machine Learning -- 1 Introduction -- 2 Related Work -- 2.1 Challenges -- 3 Dataset Description and Processing -- 3.1 Dataset Preprocessing -- 4 Methodology -- 4.1 Machine Learning Classifiers -- 5 Results and Experiments -- 6 Conclusion -- References -- Automatic Detection of Diabetic Retinopathy on the Edge -- 1 Introduction -- 2 Related Work -- 3 Dataset and Pre-processing -- 4 Methods -- 4.1 ResNet 50 -- 4.2 InceptionV3 -- 4.3 EfficientNet B5 and B6 -- 4.4 VGG19 -- 5

Performance and Result -- 6 Deployment on the Edge -- 7 Conclusion and Future Scope -- References -- A Survey on IoT Security: Security Threads and Analysis of Botnet Attacks Over IoT and Avoidance -- 1 Introduction -- 1.1 IoT Security Architecture -- 2 Sources of Security Threats in IoT Applications -- 2.1 Security Issues at Sensing/Physical Layer -- 2.2 Security Issues at Data Link Layer -- 2.3 Security Issues at Network Layer -- 2.4 Security Issues at Application Layer -- 3 Common Attacks on IoT Devices -- 4 Evolution of Botnet -- 4.1 Traditional Botnets -- 4.2 IoT-Based Botnets.
4.3 Different Botnet Attacks -- 4.4 IoT Botnet Monitoring System (IBMS) -- 4.5 Bargaining and Negotiation Methodology for Botnet Identification -- 5 Conclusion and Future Enhancement -- References -- A Coherent Approach to Analyze Sentiment of Cryptocurrency -- 1 Introduction -- 2 Background -- 2.1 Cryptocurrency and Blockchain Technology -- 2.2 Twitter -- 2.3 Sentiment Analysis -- 3 Related Works -- 4 Data -- 5 Methods -- 5.1 Sentiment Analysis Using TextBlob and VADER -- 5.2 Incorporating the Output of both the VADER and TextBlob into One -- 6 Results -- 7 Conclusions and Future Plans -- References -- Supervised Machine Learning Algorithms Based on Classification for Detection of Distributed Denial of Service Attacks in SDN-Enabled Cloud Computing -- 1 Introduction -- 2 Related Work -- 3 Proposed Detection Method -- 3.1 Naive Bayes -- 3.2 Support Vector Machines -- 4 Implementation -- 5 Result and Discussion -- 6 Conclusion -- References -- Edge Computing-Based DDoS Attack Detection for Intelligent Transportation Systems -- 1 Introduction -- 2 Related Work -- 3 Proposed Mythology -- 3.1 Entropy Calculation Phase -- 3.2 Machine Learning Phase -- 4 Results and Analysis -- 4.1 Dataset Generation and Preprocessing -- 4.2 Machine Learning Analysis -- 5 Research Challenges -- 5.1 Network Slicing and Splitting -- 5.2 Side Channel Attack Protection -- 5.3 SDN-Based Detection -- 6 Conclusions and Future Work -- References -- An Empirical Study of Secure and Complex Variants of RSA Scheme -- 1 Introduction -- 2 Standard RSA Algorithm -- 3 Literature Review -- 3.1 RSA Based on Multiplicity of Public and Private Keys -- 3.2 Modified RSA Cryptosystem Based on `n' Prime Numbers -- 3.3 Enhanced RSA (ERSA) -- 4 Implementation Results and Analysis of Existing Works -- 4.1 Performance Analysis -- 5 A Multipoint Extended and Secured Parallel RSA Scheme.
5.1 Proposed Algorithm -- 6 Conclusion and Future Scope -- References -- Text Normalization Through Neural Models in Generating Text Summary for Various Speech Synthesis Applications -- 1 Introduction -- 2 Text Normalization Is a Complex Task -- 3 Previous Approaches to Text Normalization -- 3.1 Standard Approaches -- 3.2 Various Other Approaches -- 4 Proposed Model -- 5 Various Models -- 5.1 Segmentation -- 5.2 Two-Sliding Window Model -- 5.3 Provisional Sequence to Sequence Models -- 6 Universal Language Feature Covering Grammars from Various Details -- 7 Sample Results -- 8 Conclusion -- References -- Classification of Network Intrusion Detection System Using Deep Learning -- 1 Introduction -- 2 Literature Work -- 3 About Dataset -- 3.1 Data Preprocessing -- 4 Evaluation Metrics -- 5 Proposed Methodology -- 6 Conclusion -- References -- Toward Big Data Various Challenges and Trending Applications -- 1 Introduction -- 2 Big Data Processing Varieties -- 3 Big Data Challenges -- 4 Related Work -- 5 Applications Using Big Data -- 6 Conclusion -- References -- Convolutional Neural Network-Based Approach to Detect COVID-19 from Chest X-Ray Images -- 1 Introduction -- 1.1 Interdisciplinary -- 1.2 Library of Programming Function -- 1.3 Image Diagnosis -- 1.4 Edge Detection -- 2 Related

Works -- 3 Existing System Architecture -- 4 Proposed System Architecture -- 4.1 Feature Engineering -- 5 Proposed Work -- 5.1 Proposed Methodology -- 6 Analysis of the Proposed Scheme -- 7 Performance Analysis of the Proposed Scheme -- 8 Conclusion -- References -- Classification of Medical Health Records Using Convolutional Neural Networks for Optimal Diagnosis -- 1 Introduction -- 2 Background -- 3 Objectives -- 4 Proposed Process Flow -- 5 Methodology -- 5.1 Dataset Collection -- 5.2 Preprocessing -- 6 Model Building -- 7 Code Snippet -- 8 Analysis of Model Performance. 9 Conclusion and Future Scope.