



International Conference Computational Intelligence & Data Science

February 4, 2021

**East West College of Engineering,
Yelahanka New Town, Bengaluru**



In collaboration with Universal Innovators

International Conference Computational Intelligence & Data Science

February 4, 2021 | East West College of Engineering, Yelahanka New Town, Bengaluru

BACKGROUND

International Conference on Computational Intelligence and Data Science (ICCIDS-2021) is organized with the objective of bringing together scientists, professors, research scholars, students and industrial experts in the field of Data Science and its various Applications to a common forum. Overall, the conference will provide the researchers and attendees with prospects for national and international collaboration and networking. ICCIDS-2021 will be held at East West College of Engineering, Yelahanka New Town, Bangalore. All the accepted papers (after double blinded peer review) are published in Elsevier SSRN.

OBJECTIVE OF THE CONFERENCE

The primary objective of the conference is to provide opportunity for academicians, industry experts, practitioners, professionals, researchers and policy makers from different fields to engage in discussion based on issues related to dynamic and challenging economic environment. It will also provide a platform to get acquainted with latest developments and trends in the economy and business environment coupled with their implications for the organizations. The forum will facilitate interaction among members inside and outside their own respective disciplines to enjoy the fellowship of other professionals and scholars in the field.

FOCUS AREAS

- To facilitate discussion on Computational Intelligence & Data Science that will expedite nation's growth and stability.
- To bridge the gap between academic wisdom and practical knowledge.
- To develop a series of focused research topics that will benefit the academic world.

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CALL FOR PAPER AND SUGGGESTED THEMES

Original papers on the following indicative topics, but not limited to, are welcome to be submitted for the conference:

Artificial Intelligence and Machine Learning.
Data Mining and Text mining.
Big Data Analytics and Metrics.
Cloud Computing.
Mobile Computing.
Natural Language Processing and Machine Translation.
Parallel and Distributed Algorithms.
Pattern Recognition and Analysis.
Modeling Systems and Software Engineering
Ubiquitous and High-Performance Computing.
Information, network and applications security.
Access control, web filters and firewalls.
Intrusion detection and incident response.
Vulnerability assessment and mitigating attack.
Social engineering and phishing attacks
Information security management and governance.
Software security and secure coding.
Cognitive Radio and Cognitive Networks.
Communication Architecture.
Control Systems and Applications.
Real-Time Networking.

Satellite and Space Communications.
Smart Grid Systems and Intelligent Control.
Smart Communication System Models.
Industrial Networks and Automation.
Cognitive Approach for Robotics.
Mobile Robots and Intelligent Autonomous Systems.
Human-Machine Interfaces.
Image and Video processing.
Object recognition.
Speech processing.
Medical imaging.
Renewable Energy and Power System
Power Electronics
Electromagnetic and Remote Sensing
Integrated Systems, Circuits and VLSI Design
Nano Technology & Photonics
MEMS, NEMS
Systems, Controls
Robotics
HVAC and HVDC Systems

A C C E P T A N C E A N D P U B L I C A T I O N

After a double-blind peer review, qualifying Regular Papers may be accepted as either Full Papers or Short Papers.

- All accepted and presented papers of the conference will be included in ELSEVIER-SSRN digital library (ISSN 1556-5068).
- The papers must be part of the worldwide scholarly discourse in the field covered by the library. The reviews will be done to make sure papers are relevant for the chosen classifications to ensure subscribers receive relevant content.
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- NO subscription is required on the part of any organization, school, or individual author as a prerequisite to submission or download.
- Authors will grant a non-exclusive, revocable license that allows providing services to users.
- The proceedings page would be permanently available, not need to pay an additional fee to keep the papers available on the digital library.

I N D E X I N G

Post-conference, SSRN proceedings will be made available to the following indexing services for possible inclusion:

- ISI Conference Proceedings Citation Index - ISI Web of Science
- Google Scholar
- Scopus
- DBLP

Depending on the focus of the particular indexing services, they may decide to include or not. If included one can expect it in 10-12 months. DBLP and Google Scholar are fast.

*Some high-quality papers will be considered for Scopus Indexed Springer Proceedings (The selection of paper in Springer/SSRN will be made while sending the acceptance notification).

<https://online-conf.com/iccids-home.html>

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ACCURATE FRAUD DETECTION IN CREDIT CARD TRANSACTIONS USING HYBRID HEURISTIC AND META-HEURISTIC ALGORITHMS

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ABSTRACT :

Credit card based online transactions, payment methods developed rapidly, Credit card fraud also additionally expanded simultaneously. The particular crime in banking system is credit card fraud. The main objective of proposed AFD-HHM technique is, to detect the fraudulent transaction with high accurate rate and solve the user side problems. Some most dangerous credit card crimes are credit card application fraud, phishing scams, credit card skimming, online sales fraud, Credit Card Imprints, which leads to following user problems such as class imbalance problem, verification latency and concept drift. This paper focus to detect the fraud transactions with higher efficiency rate solves the user side problems, high computational complexity problems. Initially, we propose Improved Egyptian Vulture Optimization (IEVO) algorithm (meta-heuristic) to grouping all cardholders into different groups based on the transaction behaviors. Second, we can aggregate each group transactions and compute the optimal attributes for each cardholder by using of trust rule strategy. Third, we propose Differential Evolution based Neural Network (DENN) classifier for differentiate transaction as normal or fraud. The result of proposed approach gives better accuracy with higher rate which is comparing with existing methods.



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OPTIMAL WEB SERVICE COMPOSITION USING HYBRID OPTIMIZATION ALGORITHM IN CLOUD ENVIRONMENT

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ABSTRACT:

In recent years, service-based applications are deemed to be one of the new solutions to build an enterprise application system. In order to answer the most demanding needs or adaptations to the needs of changed services quickly, service composition is currently used to exploit the multi-service capabilities in the Information Technology organizations. While web services, which have been independently developed, may not always be compatible with each other, the selection of optimal services and composition of these services are seen as a challenging issue. In this paper we propose optimal web service composition (OWSC) model, we introduce an improved Dragonfly Algorithm (IDA) to compute services whose network positions are closer to each other and to the users, which ensures the QoS of web service and network. The rule search swarm searcher (RSSA) is used to obtain the desirable characteristics from composite web services for further optimal selection of service composition set in composite planner. Then, we propose optimal tree based replanning mechanism to adapt the execution plan to the actual behavior of already executed services by a dynamic service selection at runtime. Finally, the proposed OWSC model is going to develop by cloudsims toolkit and the performance is compared with the existing models similar to our contributions in terms of QoS parameters.



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DEEP REINFORCEMENT LEARNING BASED INTELLIGENT TRAFFIC CONTROL SYSTEM

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ABSTRACT:

Metropolitan cities are witnessing enormous surge in everyday traffic resulting in delays, congestions and longer commute times. This rise is the consequence of the ever-increasing population and the corresponding demand of vehicles. However, present traffic control systems are not reciprocating this increasing demand. Upgrades in the form of real-time intelligent systems are necessary. Our solution to this problem is the formulation of a deep reinforcement learning traffic control system that actively monitors the traffic environment and makes precise predictions. These predictions in the form of traffic light phases provide for the most efficient flow of traffic through an intersection. Using deep Q-learning networks, we present an enhanced solution to the problem that reduces the average waiting time of vehicles in the environment by about 60%. We compare and evaluate multiple novel neural network architectures and demonstrate their results in our custom environment. We also account for variety of vehicles on road and their nuances, to accurately depict a realistic environment.



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**FAULT DETECTION OF BEARING USING XGBOOST ALGORITHM
AND DATA VISUALIZATION USING T-DISTRIBUTED STOCHASTIC
NEIGHBOR EMBEDDING (T-SNE) METHOD**

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ABSTRACT:

For Industry, it is essential to correctly detect the faults of the rotating machinery which are caused by the rotor body defects, bearing defects, and gear defects. The majority of times breakdown of the machines is caused by the bearing defects hence, in this paper, we have considered the bearing defects. The data is collected from the test-rig and the collected data usually will be more hence, it becomes extremely difficult to solve the problems of high dimensionality attributes of the features, that needs to be extracted from the vibrational signals, once the extraction is performed which helps us in to classify the faults correctly. To determine high dimensional attributes, t-distributed stochastic neighbor embedding (t-SNE) is presented to visualize the data. This paper employs an XGBoost algorithm to classify the faults, which implements a gradient decision tree. XGBoost model is known for its faster calculations and good efficiency and along with this XGBoost model is compared to other models like SVM and Adaboost algorithms. The results from XGBoost shows better accuracy in comparison with results from other models.



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DEVELOPMENT OF MULTISOURCE CLOUD LOGS FORENSIC WITH ENCASE TOOL FOR PERFORMING LOCK TECHNIQUE USING DEEP ANALYSIS AND REPORTING

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ABSTRACT:

Encase and FTK tool will be utilised too much in Cyber security. In view of this Cloud forensic is an research which would be binded together by cloud computing and cyber security. Cyber forensic is connected to cloud computing and different services of CC such as Infrastructure-As-A-Service (IaaS), Platform-As-A-Service (PaaS),Software-As-A-Service(SaaS) ,Data-StorageAs-A-Service (DSaaS) will be applied in different domains.. cloud forensic techniques will be used if any attacks on software, platforms, infrastructure, and storage must be investigate, report and recovered data . Many cloud forensic techniques has been innovated and proposed in literature and tools have been using in IT industries to provide secure cloud services. With this evaluation of techniques and tools, attackers evolve their anti-forensic techniques as well to break the security measures. Hence the continuous monitoring and research care is indeed required in cyber security and forensic fields.. Hence log recovery and forensic have been given highest priority on cloud resources and functioning towards improving the cloud security and cloud forensic systems.

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ASSESSING BLOCKCHAIN IN SUPPLY CHAIN MANAGEMENT

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ABSTRACT:

Blockchain technology which is establishment of bitcoin, has been used in numerous fields with its fast development resulting in the beginning of new innovation. Supply chain data is not always noticeable, accessible or trusted. Supply chains contain complex networks of suppliers, manufacturers, distributors, retailers, auditors, and consumers. A blockchain's shared data innovation foundation would modernize work processes for all gatherings; it doesn't make a variation in the size of the business organization. Furthermore, a shared framework would give examiners more noteworthy visibility into participants' activities along the block chain. Blockchain in Supply Chain Management empowers simple execution of safer and straightforward tracking of all kinds of transactions pertaining to areas such as product traceability, supplier payments, logistic transaction details, contract bids, and execution. This paper is a survey on blockchain in supply chain management. This paper focuses on the benefits of applying blockchain in supply chain management. It also discusses the issues faced in supply chain management and existing work in the related area.



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PATIENT DATA DE-IDENTIFICATION IN CLINICAL RECORDS USING DEEP LEARNING

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ABSTRACT:

Ongoing developments in clinical records have extended patients information out of cutoff points in HealthCare area. Clinical data is exemplified in an advanced type of patient illness data source promptly accessible for Doctor's reference. Bunching quiet records help Doctors in diagnosing patients with best treatment. Anyway clinical records shroud Patients private Wellbeing Data and Personality (PWDP) of patients. Complete PWDP subtleties should constantly be disposed of prior to presenting to all Doctors in affirming analysis in crisis and particular cases for a subsequent assessment. A calculation dependent on Deep learning design is proposed for taking care of this issue. Scramble or deidentify PWDP from quiet records. We deidentify seven PWDP terms from clinical records. The proposed approach tests datasets on our proposed approach and accomplishes great execution better than standard model created with Restrictive Arbitrary Fields (RAF).



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SECURED STORAGE PATH USING CRYPTOGRAPHIC VIRTUAL MAPPING FOR CLOUD APPLICATIONS

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ABSTRACT:

Cloud computing can be seen as a working model in an environment that provides cloud users with access to virtualized and configurable computing resources, which can be easily specified as a shared pool of services from the cloud service provider's paid to use applications. The cloud storage path service has gained greater appeal due to the amazing growth of digital data. Cloud users can be relieved from the local data storage path and maintenance burden using cloud storage path services. It has difficulty maintaining the secure storage path because of many security challenges of that system like the disruption of services, loss of privacy, etc., on the cloud's data storage path in the previous system. To overcome this drawback, this disclosure provides the proposed Cryptographic Virtual Mapping(CVM) system readable data for secure storage page mapping in a virtual mapping environment in cloud computing. Asymmetric Key Encryption Algorithm can be used for the encryption of massive data. This encryption process is less computationally expensive and consumes minimum time for performing the encryption and decryption of the cloud storage data. This method determines the propagation of data verification based cryptographic input data to decide the input key. The address is under a suspected control of a user of interest. The secure storage for dynamically changing data stored in the cloud is achieved using a well-known data structure called a linked list. This linked list is generated and maintained by the data owner. Using this solution, operations such as inserting, modifying, appending and deleting dynamic data are possible without downloading the entire data from the cloud server. The experimental results prove that the Cryptographic Virtual Mapping method has the highest probability of detecting damage or deformation of dynamically changing data.



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SENSITIVITY CONTEXT AWARENESS BASED PRIVACY PRESERVING RECOMMENDER SYSTEM

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ABSTRACT:

The Recommender Systems plays a vital role in today's Business World. To deliver beneficial recommendations on various products to the consumers is a core objective of the custom-made recommendation system. The recommendations service requires several types of consumer data like earlier product purchased details, consumer information, demographics, and realistic details. The consumers also called Data Providers are prone to the revelation of individual information. This information will be distorted/misused by attackers or malicious third party Data Analyzer. To defend against personal information privacy breaches, it is necessary to modify the consumer information using a privacy preservation technique and generate recommendations by building correct information. The malicious third party and/or Data Analyst of organization not able to access/alter data which will be used for recommendation. Our proposed Sensitivity Context Awareness based Privacy Preserving Recommender System mainly focuses on consumer consent to publish data for the recommendation and at same time conserves privacy of consumers and utility of data which will be used to generate recommendation.



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IMPROVEMENT OF POWER QUALITY ISSUES USING UNIFIED POWER QUALITY CONDITIONER IN DISTRIBUTION SYSTEM

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ABSTRACT:

The research work is predominantly focused on to improve the power quality in distribution system using UPQC system connected with grid. Generally the UPQC has 12 switches for improving the power quality, reduce the sag and swell and decrease the harmonic distortion. The unified power quality conditioner has reduced switches and also decreases the harmonic using various controllers. The series and shunt converter connects the dc link capacitor for ripple reduction but in nine switch UPQC device has integrate the series and shunt converter without capacitor. The unified power quality conditioner has presented for reduce the coupling problem by the presence of switching leg. A particle swarm optimization (PSO)-based multi-objective planning algorithm for power compensation of radial distribution system with UPQC consists of a series and a shunt inverter. The UPQC model based on phase angle control was used. In distributed system needs to explain the approaches for standard supply voltage droop and voltage swell. The PSO-ANN controller has most appropriate in dynamic response with a simple configuration and reduces harmonics.



ELSEVIER

A ALTMETRICS ANALYSIS IN SOCIAL MEDIA USING BIGDATA

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ABSTRACT:

The motivation behind this examination is to explore the status and the development of the logical investigations for the impact of interpersonal organizations on enormous information and utilization of large information for displaying the interpersonal organizations clients' conduct. This paper presents a far reaching audit of the examinations related with enormous information in online media. The investigation utilizes Scopus information base as an essential web crawler and covers 2000 of profoundly referred to articles over the period 2012-2019. The records are genuinely broke down and feline egorized as far as various standards. The discoveries show that explores have developed dramatically since 2014 and the pattern has proceeded at generally stable rates. In view of the review, choice emotionally supportive networks is the catchphrase which has conveyed the most noteworthy densities followed by heuristics techniques. Among the most referred to articles, papers distributed by re-searchers in United States have gotten the most noteworthy references (7548), trailed by United Kingdom (588) and China with 543 ci-tations. Topical investigation shows that the subject almost kept a significant and well-devel-oped research field and for better outcomes we can combine our exploration with "huge information examination" and "twitter" that are significant points in this field yet not grew well.

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DATA ANALYTICS FOR BUSINESS USING TABLEAU

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ABSTRACT:

The use of big data has sharply increased in recent years. As indicated by IBM, about 2.5 quintillion bytes of information are made each day. In future these amounts are increase exponentially. This data has been a boon for business means if we extract knowledge from massive data and use for the prediction of business decisions then its beneficial for both companies and their customers. Massive datasets volume is big, velocity is high and variety is diverse. These datasets are very difficult to handle using traditional techniques. So Data Analytics is essential to analyze the data. For better decision making the process of inspecting, refining, transforming, and modeling data is required which discover valuable information. This process is Data Analytics process. This paper focuses on some of the different analytics methods and tools.



ELSEVIER

**CUSTOMER CHURN PREDICTION IN TELECOMMUNICATION
INDUSTRY THROUGH MACHINE LEARNING BASED FINE-TUNED
XGBOOST ALGORITHM**

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ABSTRACT:

Telecom companies require the accurate prediction of probable churn customers to improvise the customer relationship management; this is addressed through customer churn prediction model. Customer churn is one of the major issue faced by telecommunication companies due to various competitors and this further cause's loss of revenue. Moreover, the customer churn prediction model helps in predicting the potential churners; hence plenty of research has been carried out in past and few of them succeeded through machine learning approach. However data imbalance remains the major issue, hence in this research work we design and develop Fine-tuned XGBoost model which addresses the issue of imbalance dataset through introducing the feature function; further, it also tackles with data sparsity and overfitting problem. Finetuned XGBoost is evaluated through comparing the machine-learning algorithm in terms of performance metrics like precision, recall and accuracy and fine-tuned XGBoost outperforms the existing model.



ELSEVIER

**PERFORMANCE EVALUATION OF BACK PROPAGATION
ALGORITHM BY CHANGE IN LEARNING RATE AND MOMENTUM
VALUE – A MACHINE LEARNING APPROACH.**

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ABSTRACT:

Machine learning algorithms are used in data mining for prediction analysis .Classifier that uses a Back propagation to learn a multilayer perceptron to classify instances. In this method we are using Multilayer Perceptron model for Back propagation algorithm by using learning rate and momentum factor. Overall efficiency of the system of a given Dataset can be increased by adopting learning rate and Momentum.



ELSEVIER

SMART DRIP IRRIGATION SYSTEM USING IOT

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ABSTRACT :

The water wants for irrigation have been really serious these days. There is a demand for a proper irrigation system that is in a position to save proper amount of water and utilization of technology. Inside the planet, water and food as a pair of very crucial resource, that creates agriculture crucial to humanity. Due to improvement in the technology in the agricultural field, the IOT technology gives a solution, that is easier and quick process for this smart irrigation. Beneath this paper, associate in Nursing drip irrigation system on the basis of IOT technology is being developed. A Wi-Fi-enabled microcontroller NODEMCU is used to inflict the data from the server. Through the web application or an android application farmers can control the microcontroller. Through this application we can control the water level by checking the soil status and data from microcontroller used in the garden. This may be obtained by combining the sensors properly to observe the soil status, humidity in garden area, and temperature of the garden area, all these information goes to the microcontroller and ESP8266 for the necessity of required water supply to the crops.



ELSEVIER

VIEW INVARIANT GAIT AUTHENTICATION USING TRANSFER LEARNING

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ABSTRACT:

Gait is a biometric property which plays important role in surveillance systems to ascertain identity at a distance from a camera. Silhouette-based gait are widely used in the current gait recognition community owing to effectiveness and efficacy. Gait based authentication system are subject to challenging factors like changes in view and covariate conditions. The proposed algorithm classifies a gait based on three covariate scenarios. First scenario is view variation, second scenario is walking with a bag and third scenario is walking with coat. Convolutional Neural Network (CNN) Multilayer Perceptron (MLP) based on transfer learning approach for classification of walking gaits of different subjects in order for authentication into their respective classes. The proposed system is continuation of state of art work with new method transfer learning which uses subset of benchmark dataset. In proposed method experimental results show the classification accuracy of 98 % on testing data incorporated from CASIA-B Gait dataset.



ELSEVIER

RENEWABLE ENERGY HARVESTING INVERTER USING SUPER- CAPACITOR

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ABSTRACT:

As technology advances, so does the living standards, which increases the demand for power consumption. Hence, new methods to harness energy from reliable sources are essential rather than relying on non-renewable and environmental pollution causing methods like burning fossil fuel. Many natural resources that are widely used to generate power today are non-renewable. In contrast, solar power is a source, which provides 'clean and green energy' to support the power demand as an alternative energy source. Not only has it provided an environmentally friendly method to harness power but also it can be used as a potential foundation for energy generation. Now a days, the battery remains as the dominating energy storage device i.e. Lithium-ion battery. The charges and discharges cycle inside the battery tend to degrade over time resulting in low efficiency. When a battery runs for a long lifetime its power density tends to be low to loose, thereby it retains energy due to material impairment. In contrast, the solar panel and supercapacitors can be used as an energy storage device to interface with the inverter to provide substitute power to a load, during mains power failures.



ELSEVIER

DETECTING DUPLICATE QUESTIONS IN COMMUNITY BASED WEBSITES USING MACHINE LEARNING

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ABSTRACT:

Searching answers to the queries is easy nowadays because of the most popular community based websites like Quora and stack overflow. These websites maintain Q&A database which consists of millions of questions with answers. But the practical problem with these databases is the generation of duplicate questions. Users are generating duplicate questions at a higher in spite of providing clear guidelines for the users to search for the question before posting any new question. Developing an automatic method for duplicate question detection is an on-going research from many years. In this paper we have made an effort to develop such a method using machine learning techniques such as Logistic regression, decision tree, decision tree with bagging random forest and Ada boost classifier. We were able to achieve impressive results with 79.21%, 79.29%, 81.70%, 81.72% and 81.73% of classification accuracy from the mentioned machine learning algorithms respectively. The results were compared with the similar study in the state of the art literature. Our results showed good performance in the comparison.



ELSEVIER

**DETECTION AND LOCALIZATION OF MASK OCCLUDED FACES
BY TRANSFER LEARNING USING FASTER RCNN**

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ABSTRACT:

Here in this work we utilized the novel transfer learning based technique, where a pretrained network model weights are used to train our Faster Region Convolutional Neural Network (FRCNN). With the help of captured mask-face dataset, we further propose a masked face detection and recognition work. It incorporate three major network training modules. Proposed network module cascade two pre-trained CNNs to extract target facial features and strong region of interest (ROI) from the input dataset image for transformed domain representation with higher spatial descriptors. By similar method, omitted facial feature cues are sufficiently reconstructed and the distortion introduced by noise pixs cues by masks are reduced. Lastly, the pre-trained CNN module is used to detect and identify masked face regions of the image. The network estimates mask detection accuracy by putting bounding boxes around all the occluded mask face for performing the classification and line regression work. Experiments conducted on proposed dataset shows good accuracy and reduced running time over few state-of-the-arts by 11.46 %.



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ROLE OF ITOPS IN DEVOPS

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ABSTRACT :

The IT industry is transforming itself by adopting DevOps through a combination of development practices, cultural philosophies, software tools that increases the ability to deliver products and applications at high velocity by continuously improving delivery at a faster pace than using traditional software development methods. The success of DevOps relies on the culture of collaborative development, continuous Integration, strong agile principles, reduce time and faster feedback loops, automation of testing and operations work. The expectation of IT Operations is to scale up to the need of provisioning the required hardware infrastructure at the speed of DevOps. This would involve ITOps to be highly efficient and adopt lean principles and culture in terms of hardware procurement and provisioning, network infrastructure, server and device management, IT operations and help desk support. There is a great divide between DevOps which demands Agility and change, verses ITOps that wants to adopt principles of Stability, Compliances and Governance. This paper talks about challenges of both practices and how they could bridge the gap and come together to make the change for a digital transformation.



ELSEVIER

BLOCKCHAIN-BASED PREFERENTIAL E-VOTING SYSTEM DAPP USING SMART CONTRACT

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ABSTRACT:

For long, different e-voting systems have been provided with the goal of increasing security and minimizing cost. Blockchain is a major breakthrough in the technological industry that provide immense secured platform. With the launch of Ethereum, a decentralized platform which runs decentralized applications (DApps) on it, a secured voting system now seems possible. Many organizations have now shifted their focus on voting through blockchain platforms. There's a very high chance that a normal voting method won't lead to a clear majority. There can be many ways to deal with this issue which includes another voting process to take place which can be quite expensive in terms of time and resources. In our paper, we introduce the vote-trading concept where the votes can be redistributed to other candidates in case if there is no clear majority and also this 'majority' factor can be set by the organization according to their requirement. We discuss the design for the blockchain based preferential e-voting system using the Solidity programming language where instead of one vote per candidate, we provide the concept of giving preference to the candidates.



ELSEVIER

AN APPROACH TO ANALYSIS ON COVID-19 DATA THROUGH WEB SCRAPER AND VOICE ASSISTANT – A SURVEY

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ABSTRACT:

Corona virus pandemic has been recognized as a global threat across the world and many methods were adopted for the prevention of this disease. This pandemic has caused global and economic disruption which resulted in numerous Covid-19 cases across the world. To know the number of cases and keep a track of this pandemic situation we need to collect the live data sets from the worldwide corona virus records. This can be achieved by the technique of Web Scraping which enables the extraction of live data sets from a specific platform. It facilitates the user to access the World Wide Web wherein specific data is gathered, copied from the web and then it is stored in a central local database then provides ways to retrieve and analyse the data. This estimate is to design a platform where you can obtain the live data sets and have a compact knowledge about the present scenario. This is an elementary approach to scrap the live data sets through a user interface from the Worldometer Covid-19 data set with the aid of a Google voice assistant. To implement this scheme, we use the Python programming language. To effectuate this task, we acquire the process of making API calls to the Worldometer Covid-19 website and simultaneously we will make use of the regular expressions to extract the data from the web page. However, this action includes a series of tactics that has to be recognized analysed and accomplished sequentially. Initially the input is given by the user in the form of speech. Then the required contents are searched and matched with the user's input. If the contents match then with the help of a Google voice assistant result is obtained which is the output in turn.

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WEB ACCESSIBILITY TEST APPROACH ON DEVELOPED WEBSITES

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ABSTRACT:

Web accessibility is a set of guidelines for website and online platform development in order for disable users to access the web in normal ways, it's extremely difficult to get one of the web accessibility certifications like A, AA or AAA and make website 100% accessible for disables. learning how to implement accessibility is not an easy task and it required knowledge of all sorts' disabilities and implementation guidelines. Understand the legal obligation part of it that too before and after implementation of the accessibility for your website. This research is about new approach and techniques to test web accessibility for your website whether is it is newly being developed or already developed. Existing ADA tools are capable of only detecting around 50 to 60% of ADA guidelines for its success. It is an observation that the rules used to identify errors are not well written and complex to work upon. Even if the tool shows 100% success, it does not guarantee to detect all possible violations. It is difficult to say that one tool does all for the ADA since all the tools are specify to certain disabilities and no tool covers entire criteria at once. There is one more major issue associated with the overall process of ADA certification and that is "Where to start?" Website analysis is critical to understand how much work needs to be done, tools often cost too many dollars and give complex information which is confusing to the developers without ADA knowledge. Therefore, we started working on a solution to put a strategy to test website and provide simple information by gathering web services response from the websites. The test strategy will be used by any website or e-commerce business owner planning to implement ADA guidelines to the website and without any prior knowledge on it.

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**AN AMELIORATED METHODOLOGY TO DETERMINE RELATIONS AMONG
OBJECTS**

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ABSTRACT :

Data is a collection of facts or things from which the information to inferred. To infer the data there is a need for clustering the facts or things, but some information are unstructured and difficult to access. because, it is large in volume and it contains different verities of data. This paper presents a methodology to cluster the data/things based on the verb(method) and Noun technique.

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**TEXT IDENTIFICATION SYSTEM FOR TRANSLATION OF ENGLISH
LANGUAGE**

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ABSTRACT :

India is a multilinguistic country. People of different states speak different languages but all Indians are not polyglots. English is called as universal language and Kannada is one of Dravidian languages that is used in India. The majority of people in Indian, especially who live in villages, cannot read, write and understand English language. Translation of any language that is done by human is time consuming. Therefore, there is a need for implementation of Machine translation systems that will translate English language to Kannada language. This paper describes translation system that enhances the knowledge of society without language barrier by translating text in English language to Kannada language by giving the meaning of the word. We can click the picture of any English text and give Image as input to translation system. The system translates English text to Kannada text by extracting characters from an image by using tesseract software. Tesseract is optical engine that scan image containing text and extract characters from image and convert them into editable form. Extracted text which is in English language might have non dictionary words that may or may not be translated properly to Kannada language by existing system. It also identifies such non dictionary words compares with hybrid database and replaces these words with exact Kannada word.



ELSEVIER

**DATABASE CREATION FOR NORMAL AND SUSPICIOUS BEHAVIOR
IDENTIFICATION IN ATM VIDEO SURVEILLANCE**

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ABSTRACT:

A database is proposed for testing real-time activities associated with Automated Teller Machine (ATM) application. The actual videos recorded during acquisition are used for testing purposes. The scenarios for different types of occurrences in ATM cabins that can lead to the detection of suspicious human activity are documented. The work in progress involves the automated segmentation of video monitoring and database output enhancement for real time acquisition.



ELSEVIER

**AUTHENTICATION OF A USER USING A COMBINATION OF HAND GESTURE
AND ONLINE SIGNATURE**

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ABSTRACT:

In real world most of the biometric system shows authentication of user using uni-modal system. In this they use single source of information to authenticate the user such as face segmentation approach or mouse gesture dynamic approach or hand gesture or online signature approach. Some of the limitations exposed by uni-model system can be overcome by using combination of any two approaches. We have already implemented authentication of a user using hand gesture and online signature separately. In order to increase the level of security it is very much essential to combine two authentication modes. The main goal of this paper is to develop a model to authenticate a user using a combination of hand gesture and online signature. When user logs in, they need to register by using both authentication methods. First user is asked to record a gesture using accelerometer followed by signature using digital tablet and pen. Hand gesture device consisting of a tri-axial accelerometer and microcontroller transmission to sense the hand gesture and collect the same. Online signature device consisting of a digital tablet, pen and microcontroller transmission board to sense the online gesture and collect the same. Personal computer receives both gesture and signature as an input and stores in database. During verification user is asked to give both gesture and signature for verification. This work ensures better accuracy and more effectiveness in result and also helps to minimize system error rate. As a result the performance of combination method is 100% and false acceptance ratio and false rejection ratio is zero. Our work has been found to provide better accuracy when compared to existing works.