NCI4.0-20111

A Case Study on Application of TSP (Travelling Salesman Problem)

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Abstract- The TSP is a well-known NP-hard problem, in combinatorial optimization, it has a large solution space thus it is necessary to use heuristic searching method. It is exceeding studied in the field of Operation Research and Computer Science.

In TSP, a salesman wants to visit each of a set of cities exactly once and return to the starting city with minimal distance travelled. The Significance of the TSP is that it can be pertained on many practical application in real life-scenario. But it is not always possible to apply TSP for all the real world application because if different constraints and also variations of TSP might be desired in such real-life scenario.

TSP is the problem of salesman who aims is to find the shortest possible path to visit a specified set of cities without repeating. Many practical applications require the modelling and solving TSP. Such as overhauling gas turbine engines, computer wiring, X-ray Crystallography, job sequencing.

Through, Several variations of TSP have been proposed to manage with the application specific constraints. In this work a comprehensive study on various categories of TSP variants such as profit based and kinetic based has been studied with respect to the problem formulation and applications.

NCI4.0-20112

Artificial Neural Network

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Abstract- Artificial intelligence is the science of automating intelligent behaviours currently achievable by humans. A neural network is a technique that is able represent complex input/output relationships. Artificial neural network is one of the important field of artificial intelligence it usually involves a large number of processors operating each with its own small sphere of knowledge. It is the subfield of computer science. Artificial Intelligence is becoming a popular field in computer science as it has enhanced the human life in many areas. As the power system grew it become more complex due to the technical advancements, variety and dynamic requirements.

NCI4.0-20113

A Survey of Data Fusion in Smart City Applications Uttkarsh Parmar, Mariyashayid, Drishti gupta, IshuRastogi

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Abstract- Smart-cities are an emerging paradigm containing heterogeneous network infrastructure, ubiquitous sensing devices, big-data processing and intelligent control systems. Their primary aim is to improve the quality of life of the citizens by providing intelligent services in a wide variety of aspects like transportation, healthcare, environment, and energy. In order to provide such services, the role of big-data is important. In this article, we investigate the state-of-art research efforts directed towards big-data analytics in a smart-city context. First, we present a big-data centric taxonomy for the smart-cities to bring forth a generic overview of the big-data paradigm in a smart-city environment. Second, we present a top-level snapshot of the commonly used big-data analytical platforms. Due to the heterogeneity of data being collected by the smart-cities, often with conflicting processing requirements, suitable analytical techniques depending upon the data type are suggested. Additionally, a generic four-tier big-data framework comprising of the sensing hub, storage hub, processing hub and application hub is presented that can be applied in any smart-city context. This is complemented by providing the common big-data applications and presentation of ten selected case studies of smart-cities across the globe. Finally, open challenges are highlighted in order to give future research directions.

NCI4.0-20114

Inculcating Soft Skills through Teaching of Literature Neha Anand

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Abstract- In the midst of the emerging educational trends, malleability in academic courses and mammoth availability of qualified personnels, the competition for job attainment and job sustainability is becoming all the way more strenuous. In order to get an edge over the contenders, students don't have another choice but to add values to their hard skills with soft skills to showcase their prompt caliber across the globe. Numerous researches suggest that Hard skills contribute only 15% in one's success whereas remaining 85% solely depends on soft skills which one possesses. Literature, being mirror to the society, not only entertains but also educates and instructs which delineates the idea of Art for Art's sake and for the society's sake as well. Literature, since ancient times, strongly advocates that literary works should take care of societal welfare and its advancement. The intention of any language is to proffer the learner a life span of contact all the way all the way through the written and spoken expressions. The present paper is an attempt to emphasis on the most important purpose which is, beyond the shadow of doubt, to inculcate soft skills through teaching of Literature. Amid the countless number of literary works accessible in all languages from different societies to us the holy Ramayana, a unique pearl, is an exceptional literary magnum opus with the never-ending relevance and efficacy. This paper focuses on how the eternal and enlightening lighthouse Ramayana is fruitful in cultivating soft skills through its teachings and characters.

NCI4.0-20115

Analysis of Chatbots

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Abstract— Chatbot is broadly popular now-a-days and easily spread speed as an application of computer communiqué. Some programs respond sharply like human. This type of program is called a Chatbot. For this purpose, many open source platforms are available. Artificial Intelligence Markup Language (AIML) is derived from Extensible Markup Language (XML) which is used to build up a conversational agent (chatbot) artificially this paper address the design and execution of a Chatbot system. We will also study another application where Chatbot's could be helpful and techniques used while designing a Chatbot.

NCI4.0-20116

Crop Classification in Remote Sensing Imaginary using Machine Learning: Review

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Abstract- Increasing entrance to Earth Observation (EO) data represents both opportunities and challenges in terms with how we – as society deal with global scale societal, climatic and environmental issues. Many solutions are increasingly considered to be important integral elements of developing toolkits that provide understanding, evidence, insight and intelligence relating to the functioning of our world. It is therefore apt and timely that EO and innovative technical solutions are increasingly seen as essential for future policy development to bring about mitigating action or positive changes to our world in the face of diverse and varied global challenges such as global development and sustainability, land management, natural resources, climate change, risk mitigation and poverty alleviation. This paper aims to illustrate how the development and use of innovative techniques in the EO field utilizing machine learning and artificial intelligence can support many end application areas at various scales to build and support digital infrastructures, increase institutional or organizational capacity and to better inform policy making that promotes better land governance / natural resource management practices, sustainability, risk mitigation and/or resilience.

NCI4.0-20117

A Study on the impact of Null values on result Prediction of Algorithms in Data Science

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Abstract— Data Science becomes the buzzword in technical arena and one of the most sought after domain in computer science due to its relevance in almost every domain. Industry in today's world not only requires data storage for its activities but they require a sincere analysis of data stored for the purpose of effective management, resource usage and decision making. In current arena industry uses data centres and cloud computing tools for storing huge amount of data generated by it, BigData and Hadoop tools for retrieving, classifying and converting the data into readily usable form. This data is used by Machine Learning and Data Science algorithms for the purpose of creating models that would predict results with minimum errors. The performances of these algorithms were severely affected by the quality of data presented to them. Data quality depends on various factors out of which presence of Null values is most significant.

In this paper authors assess the impact of null values on the result generated by machine learning algorithms using python libraries and data sets obtained from github. First section of the paper discusses about the null values their nature and domain. After wards few classification algorithms with respect to data science are discussed. Finally impacts of null values were identified and how it could be resolved is discussed.

NCI4.0-20118

Gait recognition based on kinect sensor Manvi Chaddha

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Abstract- This paper presents an idea of gait recognition which is based on human skeleton and trajectory of joint points captured by Microsoft Kinect sensor. In this paper Two sets of dynamic features were extracted during a particular gait cycle: the first one is called as Horizontal Distance Features (HDF) as it is based on the distance between (Ankles, knees, hands, shoulders), the second set is called the Vertical Distance Features (VDF) that provide significant information of human gait and is extracted from the height to the ground of (hand, shoulder, and ankles) during a particular gait cycle. Extracting these two sets of features was difficult and not accurate by using traditional camera, to avoisthis, the Kinect sensor is used in this research to make the measurements precise and accurate. The two sets of features are separately tested and were then joined or merge to create one feature vector.. The Kinect sensor can be used to extract all of the skeleton points, and these points can be used to build up the feature vectors .We propose to use K-nearest neighbour i as the classification method based on Cityblock distance function. Based on the experimental result the proposed method aims to provide 56% as a recognition rate using HDF, while VDF might upto provide 83.5% recognition accuracy. The Recognition rate can increase upto 92% approximately by fusing both of the HDF and VDF as one feature vector, which is far better from the existing methods

NCI4.0-2020

NCI4.0-20119

Review of Different Evolutionary approaches used in search based Environment

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Abstract- This paper presents a review of different evolutionary approaches like PSO, ACO and GA methodology for optimally clustering .All methodology has been implemented and tested on several simulated and real datasets. The performance of this methodology is compared with. Our computational simulations reveal very encouraging results in terms of the quality of solution found, the average number of function evaluations and the processing time required.

NCI4.0-20120

Towards FoT based eHealth System in Uttarakhand

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Abstract- Using various internet enabled technologies in Uttarakhand, health services can allow the sharing of patient information between different platforms. By applying the concept of Cloud computing and then Fog Computing to Uttarakhand health services we can establish an effective model for healthcare delivery. The proposed FoT based E-health model would allow for better sharing of health information among multiple health care providers, both locally and remotely, making rural and remote communities more accessible. Fog computing extends the concept of cloud computing across the network, making it ideal for Internet of Things (IoT) and other applications that require real-time collaboration. This model in turn reduces the amount of bandwidth needed compared to if that data had to be sent all the way back to a data center or cloud for processing. The role of the FoT & Cloud Data Center is critical during the transformation of health services in rural and remote Uttarakhand. Establishing a cloud-based data center can help alleviate the challenges of local blocking such as cellular network coverage, traffic congestion, power backup etc.

NCI4.0-20121

Design of Solar Powered CAB using ARDUINO-UNO

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Abstract- This paper is based on the design of a smart car with solar tracking panels and digital fare meter. Focusing on the need for renewable energy based transport systems which are pollution free and readily available; the solar energy forms the primary source of energy for the car design and is supplemented by the battery storage for adverse weather conditions. When the vehicle is idle, the battery is charged through the sun's rays incident on the solar panel, which thereafter, drives the car and also provides the power to run the microcontroller and servo motor for controlling the movement of solar panel.

In digital meter, instead of using mechanical parts, some sensors like optical interrupter or hall sensor is used to calculate the speed and distance. This in turn is more accurate than the analog meters and doesn't require any maintenance for long period of time. Further in this regard, the arduino based designed prototype consists of a digital fare meter to work as a smart cab. The speed and thus, distance travelled by the car's wheel will be calculated and continuously displayed on 16x2 LCD display. And based on distance travelled the model generates fare amount when push button is pressed.

The working prototype is build on Arduino-Uno and verified by programming it for the defined tasks to imbibe intelligence into the system.

NCI4.0-20122

On IOT security requirements, threats, vulnerabilities and countermeasures: A survey

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Abstract- The world is witnessing a phenomenal growth in the Internet of Things and is expected to grow further with the improved technological innovations. However, the associated security and privacy challenges inhibit its widespread adoption, and therefore require further exploration. Researchers from academia, industry, and standards organizations have provided potential solutions to these challenges in the previously published studies. The narrative review presented in this survey, however, provides an integrationist end-to-end mapping of IOT security requirements, identified threats, known vulnerabilities, and recommended countermeasures, which seems to be not presented before at one place. Additionally, this study contributes towards identifying a unified taxonomy for security requirements, threats, vulnerabilities and countermeasures to carry out the proposed end-to-end mapping. Further, it highlights security challenges in other related areas like trust based security models, IOT-enabled applications of Big Data, Cloud, Software Defined Network (SDN) and Network Function Virtualization (NFV).

NCI4.0-20123

Review on Privacy Preservation Methods in Cloud Computing

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Abstract— Cloud computing is a model that provides comfortable way of data sharing which gives Convenient and On demand network access to a shared splash of configurable computing resources where millions of users share an infrastructure. Even though upgrading in cloud computing technology organizations are slow in accepting it because of security issues which makes the cloud environment to be a origin of data breaching. Privacy is the major obstruction which prevents the adoption of public cloud infrastructure in a company. Many researchers have proposed some encryption techniques which help to ensure privacy for a particular level in cloud. As per the survey done by various researchers, No complete privacy preservation system is available in today's world. In this paper, comparative study is made on privacy preservation schemes in cloud where it provides a clear view on the privacy issues and methods to preserve in the cloud data storage.

NCI4.0-20124

Optimization of Dagging algorithm using GA Sandeep Kumar Budhani, Rajendra Singh Bisht

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Abstract- Dagging was proposed as an effective algorithm for the learning field of the ensemble, choosing a set of weak learners and integrating them into a final bundle of resilience. However, dagging is a fast-paced search engine system using a greedy search strategy, re-search is unavoidable. We have proposed the process of using post-normal classifiers and their classifications based on the genetic Algorithm, which outperforms the asset classification and results in the final short tests and the speed of classification. Our algorithm is tested on a UCI simulation data set, a few weak separations and a fast split compared to the standard dagging algorithm practiced.

NCI4.0-20125

Implementation of Cloud Computing applications through BIG DATA

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Abstract- Big Data and Cloud Computing could be considered as next generation IT services. While offering the implementation of cloud computing applications through big data we need to consider the type and usage of data. We also need to discuss the various layers of cloud like SaaS, IaaS and PaaS with respect to Big Data and its applications. One also needs to find the services offered by Apache Hadoop (i.e. one of the biggest technology developed by goggle) for implementation of various cloud applications. A recent advances in apache hadoop leverages the intersection of cloud and big data technology. This may allow the finding of new concept called AaaS (cloud based analytics as a service)

NCI4.0-20126

Internet of Things and Cyber Security Shahab Ghalib, Namit Gupta

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Abstract—Internet of Things (IoT) devices are rapidly exist everywhere while IoT services are becoming pervasive. The Cyber Attacks are not new in the field of Iot, but it will be deeply interwoven in our lives and societies, it is becoming important to step up an take cyber defence seriously. Hence, there is a real need to secure IoT basically in the field of Cyber Security, which has consequently resulted in a need to comprehensively understand the threats and attacks on IoT infrastructure. This paper is written to classify the various type of threats, besides analyse and characterize intruders and attack facing IoT devices and services.

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NCI4.0-20127

Blockchain Technology: A Futuristic Survey and its Challenges Nitin Kumar, Tikendra Kumar, Rohaila Naaz, Ashendra Kumar saxena Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract- Blockchain is considered by many to be a disruptive core technology. Although many researchers have realized the importance of blockchain, the research of blockchain is still in its infancy. Additionally, we conduct a clustering analysis and identify the following five research aspects of BT (Blockchain Technology) that would largely impact future deployment of following sector-FinTech Economy, Agriculture Sector, health and Insurance Sector, Real Estate and Identity Crisis. This paper also discusses future challenges of Blockchain in various sectors

NCI4.0-20128

The Estimation of Hardness in Ground Water Samples by EDTA TRITIMETRIC Method

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Abstract- The water which contain high concentration of calcium, magnesium chlorides, sulphates and bicarbonates is hard water. Water is the essence of life. But water with high degree of hardness is of no use for domestic and industrial applications. !20samples of ground water have been collected from district Moradabad and two different villages. The hardness of water is determined by EDTA titrimetric method. Out of all the samples tested 39 (32.5%) samples were moderately hard, 76 (63.33%) samples were hard water and 5(4.16%) samples were of very hard water. Very hard water is dangerous to health. The present Study did not revealed any soft water. There is a false notion that hard water is harmful to health, its not hard water, it is very hard water (>180ppm). It has been noticed that minerals may be beneficial for good health to some extent .So public should be educated about degrees of hardness and its effects.

NCI4.0-20129

Trends and Techniques in Data Mining

Amrita Kumari, Anu Sharma

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Abstract- Data mining is the process of discovering of projecting information from large data sets. It is a collaborative subfield of Computer Science with an overall goal to essence information from a data set and transfer the information into the coherent structure for further use. Websites contains billions of unused raw data. By considering this data new knowledge can be achieved. Since this data is changing and unstructured traditional data mining techniques will not be appropriate.

In this paper we will discuss about trends and techniques in data mining. We will also discuss about works done in the field of social network analysis.

NCI4.0-20130

Comparative Study on Software Process Models

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Abstract— The software engineering process can be considered at two distinct levels. At the start or first level activities related to the gaining information, development and maintenance of software; in the next stage or second level the activities related to the dentition, functioning, measurement, and upgrading the software process itself. This paper present the comparative study of various process models in software development based on various parameters; also listed various factors for choosing partial software model in the world of software development.

NCI4.0-20131

Review on Impact of Construction and Demolition Waste on the Properties of Concrete

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Abstract- Construction and Demolition (C&D) waste constitutes a major portion of total solid waste production in the world, and most of it is used in landfills. It is also becoming a serious environmental problem in many countries in the world. Construction and demolition debris frequently makes up 10-30% of the waste receive at many landfill sites around the world. This study reviews about the Recycled Aggregates (RA) produced from C&D waste and their use in concrete construction. Along with a brief overview of the engineering properties of recycled aggregates, the present study also gives a summary of the effect of use of recycled aggregate on the properties of fresh and hardened concrete. The paper concludes by identifying some of the major barriers in more widespread use of RA in recycled aggregate concrete.

NCI4.0-20132

Development of Reactive Powder Concrete: A Review Dr. R K Jain, Akshay Mehta, Shudhendu Tripathi, Shashank Kumar, Dr. Shekhar Saxena

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Abstract- Reactive Powder Composites are new cement-based materials which could be used for the storage of nuclear wastes due to the excellent microstructural properties. Production methodology of Reactive Powder Concrete (RPC) is not clearly established yet, as several parameters have a varied influence on the resulting fresh and hardened properties of RPC. Even for the same composition, properties such as mechanical as well as microstructural properties differ significantly by changing temperature of curing and method of curing with respect to time/duration. The study of several RPC compositions by SEM Analysis and X-ray diffraction made it possible to better understand their microstructural properties. The present study reviews the various mechanical properties of RPC and the effect of different curing temperatures on the properties of RPC.

NCI4.0-20133

Artificial Intelligence and Human Intelligence Suraj Kumar, Mohit Sharawat, Subodh Sirohi, Namit Gupta Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract- In this, we are doing a deep conversation about human intelligence and artificial intelligence. We all know that artificial intelligence is ready to become the need for future generation to make there working easy and secure. Here we discuss about the effects of artificial intelligence on human beings and how they will affect on human and cause of their extinction.

NCI4.0-20134

HUMANOID ROBOTS

Arbaab Khan, Raushan Waliya, Shivam Kumar Saxena Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract— In this humanoid robot article we'll see a brief intro of this from very beginning to advance first of all let Me clear you the definition of humanoid robot def. A humanoid robot is a robot with its body shape built to resemble the human body. The design may be for functional purposes, such as interacting with human tools and environments, for experimental purposes, such as the study of bipedal locomotion, or for other purposes. In general, humanoid robots have a torso, a head, two arms, and two legs, though some forms of humanoid robots may model only part of the body, for example, from the waist up. Some humanoid robots also have heads designed to replicate human facial features such as eyes and mouths. Androids are humanoid robots built to aesthetically resemble humans.

NCI4.0-20135

Li-Fi Technology, the future of Wireless Communication Adish Jain, Priyank Singhar, Diksha Jain

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Abstract— Li-Fi i.e. Light Fidelity is a new pathway towards high speed internet. In 2011, while speaking in TED Talks, German Physicist Harald Haas first spoke about it. It is a Visible Light Communication Technology (VLC) which uses LEDs for transmission of the data. The light is used as a medium of high-speed communication just like Wi-Fi. It is extremely useful in handling the heavy amount of data. Li-Fi will take the wireless communication to the next level by overcoming the challenges of the current Wi-Fi technology. It can be used at the places like hospitals, where radio waves can be hazardous. Another advantage of Li-Fi is, the high security of data, which makes it very useful in military operations. It will also play a vital role in the research where conditions can be life threatening for human beings.

This paper focuses mainly on its technological aspects, features, comparative study with Wi-Fi technology, implementation and new developments based on the studies done so far.

NCI4.0-20136

MONOWHEEL

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Abstract— A monowheel is a one-wheeled single-track vehicle similar to a unicycle. Instead of sitting above the wheel as in a unicycle, the rider sits either within the wheel or next to it. The wheel is a ring, usually driven by smaller wheels pressing against its inner rim. Most are single-passenger vehicles, though multi-passenger models have been built. Hand-cranked and pedal-powered monowheels were patented and built in the late 19th century; most built in the 20th century have been motorized. Some modern builders refer to these vehicles as monocycles, though that term is also sometimes used to describe motorized unicycles. Today, monowheels are generally built and used for fun and entertainment purposes, though from the 1860s through to the 1930s, they were proposed for use as serious transportation.

The world speed record for a motorized monowheel is 98.464 km/h (61.18 mph).

NCI4.0-20137

A Survey of Data Mining Techniques for Social Network Analysis Shubhi Goel, Anu Sharma

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Abstract— Today, the use of social networks is growing ceaselessly and rapidly. More alarming is the fact that these networks have become a substantial pool for unstructured data that belong to a host of domains, including business, governments and health. The increasing reliance on social networks calls for data mining techniques that is likely to facilitate reforming the unstructured data and place them within a systematic pattern. The goal of the present survey is to analyze the data mining techniques that were utilized by social media networks. Data mining is the extraction of projecting information from large data sets, is a great innovative technology. The overall goal of the data mining process is to extract information from a data set and transform it into an understandable structure for further use. This paper reviews data mining techniques currently in use on analyzing Social media.

NCI4.0-20138

Importance of RDF Visualization Tools

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Abstract— RDF visualization tools are the backbone of semantic web and linked web, without RDF visualization tools the semantic web of the future and the linked web will be theories only and the advancement in the intelligent web will fade away. Semantic Web technologies are increasingly being used for the development of Future Internet applications, mainly due to the impressive growth of the Internet of Things research area. The spread pushes for effective and efficient ways to visualize the content of RDF ontologies and knowledge bases. In this paper, we proposed a survey of the main tools for the graphical visualization of triples exploiting a graph representation with their advantages.

NCI4.0-20139

Deepfakes - A boon or a threat: A Review Naman Mishra, Priyank Signhal, Shakti Kundu Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract— Camera never lies used to be a popular saying but with the rise Image editing tools like Photoshop that quote was put into question a long back but Videos, videos were still solemn if you have a video of any person doing/saying something it has to be true. But all this was put into question with the rise of the Deepfake technology. With the availability of free to use apps, it is becoming very easy to create seamless Deepfakes. All you need is some relevant data and the software does all the heavy lifting. Deepfake technology if used with caution can change lives and save millions of dollars, but until now it seems to be doing more harm than good. It has been used in defamation, pornography, blackmail, and extortion. Therefore, we must be aware as to where we stand with the Deepfake technology and all it has the potential to do. Which is why through this paper, we tried to review this relatively new yet infinitely powerful tech and examine where we stand in a world where Deepfakes exist.

NCI4.0-20140

Research on Grinding Wheel Characteristic

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Abstract- Grinding of metals is a complex material removal operation. Research on cutting process of a single abrasive grain is the basis of further understanding of grinding mechanism. In this investigation, the simulation and analysis for the non-uniform thermo-mechanical coupling intense stress fields in cutting zones of a single abrasive with negative rake are conducted by means of the FEM techniques. The cutting forces, the cutting temperature distribution and the strain rate in cutting zone are numerically demonstrated. Grinding mechanics are analyzed from microscopic view according to the simulation results. Research results facilitate a better understanding on the mechanics of grinding.

NCI4.0-20141

Home & Enterprise Security Solutions Using Vision Intelligence Aditya Jain, Rupal Gupta

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Abstract- Security is something that is essential for us in today's world where crime rate is very high. The purpose of this paper is to provide a reliable, secure and low cost security system for middle class people. Idea of the proposed system is to use vision intelligence using Artificial Intelligence (AI) and Machine Learning (ML) to detect any kind of criminal activity. The proposed system will prevent it with fog canons that are used to make the visibility zero in few seconds and it also do IVR calls to nearest police station which will ultimately make conditions worse for intruder victim in that situation. So it is expected that the intruder will leave the situation/place immediately.

NCI4.0-20142

An Analysis of Hard classification and Soft Classification Approaches in Remote Sensing Data

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Abstract— In the process of designing real word applications, Hard classification and Soft classification approaches are now becoming prominent techniques. The information regarding thematic maps can be easily extracted with the reinforcement of appropriate algorithm for image classification. Pure and mixed pixels constitute remote sensing images. In digital image analysis, a pixel is generally considered as a unit association to a single land cover class. Nonetheless, due to limited resolution, pixels often represent ground areas which comprises of two or more different land cover classes. Because of this reason, it has been recommended that fuzziness should be domicile in the classification procedure so that pixels may have multiple or partial class membership. In this scenario, a measure of the strength of membership for each class is output by the classifier, resulting in a soft classification technique. This paper bull's eye on hard and soft classification approaches in Remote Sensing Data.

NCI4.0-20143

Artificial Intelligence and its Application in Different Areas Ayushi Saxena ,Animesh Jain, Namit Gupta

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Abstract- In the future, intelligent machines will replace or enhance human capabilities in many areas. Artificial intelligence is the intelligence exhibited by machines or software. It is the subfield of computer science. Artificial Intelligence is becoming a popular field in computer science as it has enhanced the human life in many areas. Artificial intelligence in the last two decades has greatly improved performance of the manufacturing and service systems. Study in the area of artificial intelligence has given rise to the rapidly growing technology known as expert system. Application areas of Artificial Intelligence is having a huge impact on various fields of life as expert system is widely used these days to solve the complex problems in various areas as science, engineering, business, medicine, weather forecasting. The areas employing the technology of Artificial Intelligence have seen an increase in the quality and efficiency. This paper gives an overview of this technology and the application areas of this technology. This paper will also explore the current use of Artificial Intelligence technologies in the PSS design to damp the power system oscillations caused by interruptions, in Network Intrusion for protecting computer and communication networks from intruders, in the medical are amedicine, to improve hospital inpatient care, for medical image classification, in the accounting databases to mitigate the problems of it and in the computer games.

NCI4.0-20144

Security Issues in Cloud Computing

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Abstract— In the last few years, cloud computing has grown from being a promising business concept to one of the fastest growing segments of the IT industry. It offers an on demand and scalable access to a shared pool of resources hosted in a data centre at providers' site. It reduces the overheads of up-front investments and financial risks for the end-user. The qualitative services and lower cost of services are the key requirements of this technology. Regardless of the fact that cloud computing offers great advantages to the end users, there are several challenging issues that are mandatory to be addressed. This paper discusses security issues, requirements and challenges that cloud service providers face during cloud engineering.

NCI4.0-20145

A Review of World Economic Growth in India Digital

Ranjana Sharma, Chirag Malhotra, Manshika Khera

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Abstract- Knowledge is the important aspect related to level of productivity, economic growth and lead a new focus on role of information, technology learning in economic performance. The term 'Knowledge-based economy acquires an important place of knowledge and technology in all modern economics.

This paper is based on understanding of the dynamic of knowledge based economy and its relation to traditional economy and shows a "new growth theory".

The growing level of knowledge and its transmission of information through computer network has led to the formation of information society. It emerge the use of all latest AI tools &technologies like Artificial Neural Network, Fuzzy Logic, Genetic algorithm etc.

NCI4.0-20146

Role of Humanities in Modern Technological World Indu Tripathi

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Abstract— The significance of Humanities cannot be ignored in the advanced and modern era too. Although it gets importance gradually, yet no one can ignore it completely. From a historical point of view, until the mid-19th century, the humanities held the upper hand. However, in 1847 Yale College broke with this tradition and formed the School of Applied Chemistry. Science had begun its separation and was ascending visa-visa the liberal arts in universities the world over. Authorities both within and outside of science have expressed concern that scientists do not learn enough about the humanities -- to the detriment of society. There are some reasons why students pursuing science careers should augment their education with a strong foundation in the humanities. A successful society depends upon altruism, charity, civility, compassion, and generosity and the humanities evaluate and emphasize the importance of these characteristics. Humanities study helps you understand the impact that science, technology, and medicine has had on society and understand the future scientific needs of society. It is a general belief among scientists that science deals with facts and the humanities deals with values.

NCI4.0-20147

Analysis of 4G and 5G Communication System Saquib Saqulain, Ashok Kumar

Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract- 5G wireless technologies is the modification and upgrade version of 4G technology. Currently 4G is lacking qualities in many areas which needed to be fixed. The comparative analysis between 4G and 5G is mainly in areas like speed, frequency, band switching design basis and forward error correction is studied. 5G mainly solves the problem of poor coverage, bad interconnectivity, poor quality of service. 5G technology will be proficient of providing an omnipresent Gpbs experience to customers who subscribe from anywhere in the country and provides data transmission speed up to tens of Gbps per base station. The importance of the comparative study is estimated for a speed and effective connection and communication of devices like wireless devices and other hardware. The importance of the comparative study is estimated for a speed and effective connection and communication of devices like wireless devices and other hardware.

NCI4.0-20148

A Review Paper on Rectangular Microstrip Patch Antenna Sakshi Singh ^a, Jitesh Kumar ^b

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Abstract— In this rapid changing world in wireless communication, dual or multiband antenna has been playing a key role for wireless service requirements Antenna is basically a guiding transitional that is used for radiating or receiving radio waves.. Microstrip patch antenna has many advantages like low cost, compact size, simple structure and compatibility with integrated circuitry. It has tremendous applications in military, radar systems, mobile communications, global positioning system (GPS), remote sensing etc. Wireless local area network (WLAN) and Worldwide Interoperability for Microwave Access (WiMAX) have been widely applied in mobile devices such as handheld computers and smart phones. These two techniques have been widely considered as a cost-effective, flexible, reliable and high-speed data connectivity solution, enabling user mobility. This paper presents a literature survey of dual band rectangular patch antenna for WLAN and WiMAX application

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NCI4.0-20149

Smart Road Safety and Vehicle Accident Prevention System for Mountain Road

Shubham Verma, Umesh Kumar Singh, Vivek Kumar, Aakansha Singh Electrical Engineering, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract- On road, accident is a major issue of concern. Even with all modern developments in the field of vehicle design, road lane design and management, accidents do occur. Timely accident detection and taking immediate action with respect to emergency health care of victims by informing an emergency center such as a hospital or a police station about the accident on time plays a vital role in human safety and road traffic management. Accident detection can be done under various domains. Most of the papers surveyed use application of sensor technology, besides trying to detect accidents automatically using machine learning and computer vision from surveillance systems. Any kind of accident detected is automatically sent as an alert to the required destination. Each of these methods has different percentages of accuracy and their own limitations.

NCI4.0-20150

IOT Based Information System for SHIPS & CARGO

Shiv Om Wadhwa, Dr. Arpit Jain

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Abstract- The main aim of this paper is to avoid or be aware in having the unconditional surcamstances of accidents of ship using information system implementionted through internet of things IOT. Raspberry Pi 3 is use as main controller and embedded web server for information access system. Arduino UNO R3 is use to interface the Raspberry Pi with GPS. We suppose to develop a web page using PHP show in all sensor parameters/safety alerts/GPS coordinate of a ship. Sensor like waterproof temperature sensor DS18B20, MQ135, ADXL345 are used for safety measures. GPS is use to track ship at any time/anywhere using information access system.

This will ensure not only safety of ship but also the people travelling through ship. This integrated system will be a real time operating system.

NCI4.0-20151

Internet of Things

Aditya Kumar, Khushi Agarwal

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Abstract - The Internet of Things (IoT) is the internetworking of physical devices, vehicles and other objects which consists of an embedded system with sensors, actuators and network connectivity that enable to collect and exchange data. The IoT allows objects to be sensed and/or controlled remotely across existing network infrastructure, creating opportunities for more integration of the physical world into computer-based systems, and result in improved accuracy, efficiency and economic benefit. The IoT is a rapidly increasing and promising technology which becomes more and more present in our everyday lives.

NCI4.0-20152

Cyber Crime

Anant Jain, Namit Gupta

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Abstract - As we all know that cyber crime has been one of the most common activity made by the computers experts. In this paper I have mentioned some of the impact of cyber crime .Cyber crime are that activities made by the people for destroying organizations for network stealing and other valuable data , documents ,hacking banking details. My paper includes detailed information regarding cyber crime and modes of cyber crime. Finally i will go for the research on the crimes made by the misuse of internet in some of the areas like Financial crimes ,Cyber pornography, E-mail spoofing, E-mail bombing, virus attacks .Finally I will get the main objectives of my paper. Like this my paper will be complete.

NCI4.0-20153

AlphaZero: The New Boss Akshat Kumar Jain, Gulista Khan

Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract— The field of chess raises very interesting challenges to computer science and in particular to Artificial Intelligence. Indeed, as we will see, computational models of chess need to take into account important elements of advanced human problem solving capabilities such as knowledge representation, reasoning, and learning. In this paper I describe and compare two main engines on the basis of a chess tournament. A computer program is capable of carrying and describing some creative moves of chess. The results will definitely surprising.

NCI4.0-20154

To Overcome Network Problem using Network-on-chip

Parshav Jain, Namit Gupta

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Abstract- Network-on-Chip (NoC) is a newly introduced paradigm to overcome the communication problems of System-on-Chip architectures. Mapping applications onto mesh-based NoC architecture is an NP-hard problem and several heuristic methods have been presented to solve it so far. Scalability is the main problem of the heuristic methods and it is very difficult to conclude that one heuristic is better than the others. Integer Linear Programming (ILP) based methods determine the optimum mappings. However, they take very long execution times. In this paper, we propose a clustering based relaxation for ILP formulations.

NCI4.0-20155

An Overview of Pattern Recognition and Approaches Rajat Varshney, Ashok Kumar

Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract- Any object that we see in the world that forms a pattern whether it be an image of a car or speech signals like the word "yes" which produce an oscillating wave on oscilloscope. Pattern describe what we see in the world, what we hear and what we sense. So the job of pattern recognition is a machine should be able to understand what we are seeing around us or what we are speaking. Pattern recognition is used to give human recognition intelligence to machine which is soul of today's many modern application. Pattern Recognition is recognition process which recognizes a pattern using a machine or computer. Researchers and scientists are evolved new pattern recognition techniques and apply them to many real life applications such as agriculture, robotics, biometrics, medical diagnosis, life form analysis, image processing, process control, information management systems, aerial photo interpretation, weather prediction, sensing of life on remote planets, behavior analysis, Speech recognition, automatic diseases detection system in the infected plants, cancer detection system etc. with combination of other technology

NCI4.0-20156

PI &Fuzzy Logic Controller for Power Quality Control on Nonlinear Industrial Applications

Garima Goswami ^a, Pankaj kumar Goswami ^b

Abstract— The industry revolution requires many attributes to enhance productivity and reduces the production costs. In same series, the product quality follows the feature rules of smart industry systems. The quality is the prime concern among many; therefore, this paper elicits the design strategy of a controller system to improve power quality under industrial revolution 4.0. This helps in harmonic reduction and power quality (PQ) improvement at nonlinear load conditions in industrial applications. A design is modelled and evaluated for common converter application to compensate the harmonics for Single phase AC to DC bridge rectifier. Generally, it works as main converter in unregulated mode for most of the device application in automatic industry applications. The work describes the scheme where an auxiliary Synchronous Link Converter (SLC) is used for current compensation though shunt connection with the main converter unit. The adequate control on phase excitation results in elimination of harmonic components from the supply current and hence significant improvement in power quality. The turn on and turn off time is measured by an adequate signaling byPI/Fuzzylogic controller. This action results in advance filtering technique for nonlinear load applications in industrial system to avoid failure and faulty performance.

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NCI4.0-20157

Radio Frequency Identification [RFID] Technology: A Studyon Dawning Issues, Challenges and Future Modifications

Sheenam Naaz, Suraiya Parveen

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Abstract— Presently everyone is working for automation in every field so, to aid the tedious work we can use radio frequency identification system that works on current issues faced while data organizing or tagging in supply chain management. This paper provides a study on radio frequency identification (RFID) technology. RFID tags were originally designed to basically replace the barcodes in supply chains. Their advantages are that they can be read wirelessly and with no line of sight, contain more information than barcodes and are more robust. The paper describes current technology, including the ranges of frequencies and specifications used. However, privacy became a problem with increasingly omnipresent RFID tags. This paper discusses potential attacks that could infringe your privacy and also explains countermeasures. The RFID technology did not stop at item-level tagging. This paper also provides up-to-date research to find and track objects. Due to such widespread use of RFID tags, a significant reduction in the cost of producing them is of considerable interest. It turns out that printing tags can be a viable option to conventional production.

NCI4.0-20158

Arduino Based Prepaid Meter Using GSM Module

Pratik Korde, Nirmit Jain, Dr. Garima Goswami

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Abstract- The process of revenue collection in Indian electricity department comprises various stages such as manual meter reading, based on that readings bills are generated and then distributed to each of consumers and industrial premises, which makes it complex and time consuming. Also human errors can't be avoided here. Various researchers had provided effective solution for this problem. A GSM technology can facilitate the users to verify the electricity consumption status and transparency is maintained between electricity department and the consumer as both will have access to continuous monitoring of energy meter. Also the use of GSM technology provides prepayment facility and in other perspective this promotes cashless economy. The use of relay here makes sure that no balance should lead to instant cutoff of electricity in consumer premises. All this system is handled securely by Arduino Uno. For the developing countries like India this will be a better solution for electricity monitoring and billing. It is made in such a manner that it is cost effective and much better than conventional meters. In this paper six research papers have been discussed based on various aspects of pre-paid energy meter.

NCI4.0-20159

OTSU's and K-Means Algorithms Result Analysis in Image Segmentation

Neeraj Kumari

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Abstract-- Segmentation is the initial phase in examining or translating a picture consequently. Specifically applications, similar to picture pressure or picture acknowledgment, whole picture can't be handled straightforwardly. Thus numerous segmentation procedures are proposed to fragment a picture before preparing it. This made it conceivable to create numerous methods which are right now utilizing as a part of various businesses and farming field. They are either connected for evaluating or reviewing nature of sustenance items and Fruits. These created strategies utilize thresholding and grouping way to deal with get appropriate sectioned yield. This paper focused on K-Means Algorithm and OTSU's Algorithm for image segmentation. This approach portions the Mango natural product pictures especially which are nonroundabout and caught in different enlightenment, for example, low, Medium and high power. K-Means Algorithm is eminent strategy for picture segmentation. Distinctive shape Mango organic product pictures are fragmented appropriately alongside dark scale. After the segmentation procedure thresholding are connected on the sectioned picture. Thresholding calculation "Otsu's thresholding" is connected to enhance the effectiveness of the last yield picture. The diagnostic outcome demonstrates the exact segmentation of mango Image utilizing this approach.

NCI4.0-20160

Virtual Learning Environment: Issues and Suggestions Dr. Megha Sharma

Management, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract- In the era of ICT and Internet it is important to keep pace with rapid changes in the technology that are taking place in the world, especially for developing countries with strong emphasis on the Education sector. For this, changes ought to be introduced in the teaching-learning process. The Use of Internet is becoming an engine of innovation in education. The Internet or indeed ICT and all its interactive elements are able to have an extremely positive impact to the learning potential of students as well as teachers. Virtual Learning Environment (VLE) is a web-based toolkit that facilitates learning through the provision and integration of online teaching and learning materials. This paper shows the concept of virtual learning environment, virtual community, characteristics of present virtual learning environment/classrooms; differentiate with traditional learning environment, demerits and suggestions of VLE, proposed model and some innovative initiatives by the government of India.

NCI4.0-20161

Attacks and Solution for Internet Security Siddhartha Saxena, Mayur Vishnoi, Aaditya Jain

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Abstract— Security is a fundamental component of every network design. When planning, building, and operating a network, you should understand the importance of a strong security policy. Network Security is a security policy that defines what people can and can't do with network components and resources. The fundamental purpose of a network security is to protect against attacks from the Internet. There are many different ways of attacking a network such as: Hacker/Cracker attacks whereby a remote Internet user attempts to gain access to a network, usually with the intention to destroy or copy data. The major attacks to network security are passive attack, active attack, distributed attack, insider attack, close: in attack, Phishing Attack, Hijack attack, Password attack etc. However a system must be able to limit damage and recover rapidly when attacks occur. So there are various solutions when any of above attacks occurs. Some of the common solutions of these attacks are firewalls, user account access controls and cryptography, Intrusion Detection Systems (IDSs), Network Address Translation (NAT), Stateful Packet Inspection etc. It is always said that "Prevention Is Better Than Cure" some most common preventions that can be taken to be secured are to keep your operating system updated and by using a reputable antivirus program. [1]

NCI4.0-20162

Energy- Efficient Routing Protocols for Wireless Sensor Network Mayur Vishnoi, Siddhartha Saxena, Aaditya Jain

Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract- There has been plenty of interest in building and deploying sensor networks. Wireless sensor network is a collection of a large number of small nodes which acts as routers also. These nodes carry very limited power source which is non-rechargeable and non-replaceable which makes energy consumption an significant issue. Energy conservation is a very important issue for prolonging the lifetime of the network. As the sensor nodes act like routers as well, the determination of routing technique plays a key role in controlling the consumption of energy. This paper describes the framework of wireless sensor network and the analysis and study of various research work related to Energy Efficient Routing in Wireless Sensor Networks.

NCI4.0-20163

Artificial Intelligence

Sejal Jain, Ayushi Jain, Mohd. Saleem

Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract— AI research has focused on improving the decision-making capabilities of computers, i.e., the ability to select high-quality actions in pursuit of a given objective. When the objective is aligned with the values of the human race, this can lead to tremendous benefits. AI is the broader concept of machines being able to carry out tasks in a way that we would consider smart. AI are systems or devices which are built for specific task. These are far more common like systems designed to intelligently trade stocks and shares, or to maneuver an autonomous vehicle.

NCI4.0-20164

BIG DATA IN HEALTH CARE

Bhumika Agarwal, Ritika Agrawal, Namit Gupta

Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract— Healthcare is one of the business fields with the highest Big Data potential. According to the prevailing definition, Big Data refers to the fact that data today is often too large and heterogeneous and changes too quickly to be stored, processed, and transformed into value by previous technologies.

NCI4.0-20165

Effectiveness of Digital Marketing: An Organizational Perspective

^a Manas Ranjan Tripathy, ^b Dr. Pradip Kumar Das

Abstract— Marketers are faced with new challenges and opportunities within this digital age. Digital marketing is the utilization of electronic media by the marketers to promote the products or services into the market. The main objective of digital marketing is attracting customers and allowing them to interact with the brand through digital media. This article focuses on the importance of digital marketing for both marketers and consumers. We examine the effect of digital marketing on the firms' sales. Additionally the differences between traditional marketing and digital marketing in this paper are presented. This study has described various forms of digital marketing, effectiveness of it and the impact it has on firm's sales. The examined sample consists of one hundred fifty firms and fifty executives which have been randomly selected to prove the effectiveness of digital marketing. Collected data has been analyzed with the help of various statistical tools and techniques.

NCI4.0-20166

A Congestion Control Algorithm: To Improve Dissemination of Event Driven Message in VANET

Dr.Kirti Shukla, Amit Shukla

Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract— Mobile ad hoc network (MANET) is a collection of mobile computers or devices that cooperatively communicate with each other without any pre-established infrastructures such as a centralized access point. There are several issues in VANET. One of them is congestion control. In case of increase in the number of beacon messages broadcasted by many vehicles, the communication channel will easily be congested. So, to overcome this problem we have proposed an algorithm that increases the availability of communication channel for emergency messages over the beacon messages.

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NCI4.0-20167

AINA: Modern Approach for Real Time Traffic Controal Naman Gupta, Gagan Gupta, Zamin Ahmed, Chhavi Vishnoi, Dr. Danish Ather Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract— Proposed system in the document represents an AI which is capable of detecting the real time traffic according to the density of the vehicles present on the road with the help of real time video captured and image processing techniques.

NCI4.0-20168

Specific Satellite data Identification using soft and Hard based classifies Application

Mohan Vishal Gupta, Abeer Masroor, Vandana khanna Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract— In the process of designing real word applications, Hard classification and Soft classification approaches are now becoming prominent techniques. The information regarding thematic maps can be easily extracted with the reinforcement of appropriate algorithm for image classification. Pure and mixed pixels constitute remote sensing images. In digital image analysis, a pixel is generally considered as a unit association to a single land cover class. Nonetheless, due to limited resolution, pixels often represent ground areas which comprises of two or more different land cover classes. Because of this reason, it has been recommended that fuzziness should be domicile in the classification procedure so that pixels may have multiple or partial class membership. In this scenario, a measure of the strength of membership for each class is output by the classifier, resulting in a soft classification technique. This paper bull's eye on hard and soft classification approaches in Remote Sensing Data.

NCI4.0-20169

Peer – Peer Message Authentication with Digital Signature in Mobile ADHOC Network

Mohd Salman, Mohd Khubeb Khan

Computer Science, i-Nurture, Foe&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract— The Main Objectives of this research are, We are Developing a Digital Signature System in which a sender send a packet with digital sign to multiple users, the receiver verify the signature. Multicast Authentication based on Batch Signature [MABS] utilizes an efficient asymmetric cryptographic primitive called batch signature which supports the authentication of any number of packets simultaneously with one signature verification, to address the efficiency and packet loss problems in general environments. The enhanced scheme combines MABS with packet filtering to alleviate the DoS impact in hostile environments. MABS provides data integrity, origin authentication and non-repudiation as previous asymmetric key based protocols. MABS can achieve perfect resilience to packet loss in lossy channels in the sense that no matter how many packets are lost the already-received packets can still be authenticated by receivers.

NCI4.0-20170

To improving the quality of Images using FADEIN Technique

^aRatnesh Kumar Shukla, ^b Dr. Arvind Tiwari

Abstract—In current scenario of face identification has finding substantial attention from researchers in digital image processing, biometric, and computer vision, pattern recognitionand similar communities. Researcher is contributing to larger portion of research for devoted security aspect, man and machine related communication, content-based image retrieval, and related video/image coding. The face recognitionsystem is very useful for blurred and corrupted image, Blur and noise are findsdue to the shutter and motion of the camera. It is working in a large number of applications of facial images and there features. Facial deblur inference (FADEIN) method has solved the face related problem and identified the unknown query of test image. FADEIN method is very useful for face recognition for blurred and noisy images. The point spread function (PSF) is finding very important characteristic to identify the important features of the image.PSF has used to matching the features of the faces based on the conceptof image classification characteristics along the direction of motion are different. By preprocessed the blurred image we emphasize the PSF characteristics at the expense of the image characteristics. FADEIN method is very using for both noisy and blurred images.

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NCI4.0-20171

A Review on Routing Algorithms for Cloud Computing Rahul Rathore

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Abstract- Cloud computing is the online based computing where all the software, infrastructure, platform, and other devices are provided as a service on pay per use base. It also provides the facility of on demand network access. Cloud computing gives the impression as a computational paradigm and a distributed architecture as well. The chief ton objective is to offer the consumers secure as well as quick computing service. The cloud boosts the agility, scalability, ability to acclimate the adequate number of users in line with the demand cost reduction by using the optimized and efficient computing. This paper is a survey on various routing algorithms which are used for the cloud computing processes, the optimal resource allocation techniques used in cloud computing and its applications in numerous fields. Cloud computing is far and wide used in distributed and mobile computing environment which is possible as a result of miniaturization of communication technology. The significance of the routing is measured as avital part in the cloud computing ever since they are grounded on the on – demand networks. Hence allocating the nearest route has a vital role in cloud computing.

NCI4.0-20172

"Rotoscopy" A Milestones in VFX

Jyoti Ranjan Labh, Paridhi Goyal, Raini Jain, Ayush Jain Animation, Foe&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract— The main goal of this paper is to study of the rotoscoping process and how it is done. Due to technological advancement in modern era the computer graphics and animation field rapidly change and gives the flexibility to the creator or roto artist to use numerous techniques and implement those to achieve the good quality of output. By first tracing the object through a set of tools in the compositing software so that a new alpha channel can be created for a part of image sequence or a video. Through this technique the artist is able to extract the desired area from the footage frame by frame. Different mask shapes and animate the shapes need to create and match each movement with key frame animation on each frame.

This process takes hours or even days to complete. The use of blue and green screens are often used, this makes the compositing elements into a scene much easier. Also, not every shot can be used with blue and green screens.

NCI4.0-20173

Structural and Spectroscopic Study of Chlorine Doped Polyfluoranthene using Density Functional Theory

Parag Agarwal

Physics, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract- The effect of chlorine doping on the structural and spectral characteristics of Polyfluoranthene [PFA] have been studied by methods of infrared spectroscopy and quantum chemistry. Electrostatic potential surface, optimized geometry, harmonic vibrational frequencies and infrared intensities were calculated by density functional theory (DFT) using oligomeric approach employing B3LYP with complete relaxation in the potential energy surface using 6-311G (d, p) basis set. A complete analysis of the experimental infrared spectra has been reported on the basis of wavenumber of the vibrational bands and potential energy distribution.

NCI4.0-20174

Social Aspects of Friend Identification and Profile Ranking in Internet of Things Era

Tushar Mehrotra, Gaurav Kumar Rajput, Shakti Kundu, Sandeep Saxena Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract— In this paper a model is proposed to emphasis the use and advantages of profile ranking based upon social contacts or friends' group. The basic idea behind the model is grouping the people socially on the basis of sharing common behaviour, usage patterns of social media or other applications. This model can be easily incorporated with existing technology and prove beneficial from ample of aspects as discussed throughout the literature.

NCI4.0-20175

RFID BASED HIGHWAY TOLL TAX SYSTEM

Anamika Dubey ^a, Shanu Rajput ^b, Kusum ^c, Prashant Kumar ^d, Rahul Vishnoi ^e ^{a, b, c} Electronic and Communication, FOE&CS, Teerthanker Mahaveer University, Moradabad, India ^{d, e} Electrical Engineering, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract- RFID based Toll Collection System Using Arduino used for collecting tax automatically. In this we do the identification with the help of radio frequency. A vehicle will hold an RFID tag. This tag is nothing but unique identification number assigned. This will be assigned by RTO or traffic governing authority. In accordance with this number we will store, all basic information as well as the amount he has paid in advance for the toll collection. Reader will be strategically placed at toll collection centre. Whenever the vehicle passes the toll booth, the tax amount will be deducted from his prepaid balance. New balance will be updated. In case if one has insufficient balance, his updated balance will be negative one. To tackle this problem, we have camera on the way to capture the image of respective vehicle. As vehicles don't have to stop in a queue, this translates to reduced Traffic congestion at toll plazas and helps in lower fuel consumption. This is very important advantage of this system.

NCI4.0-20176

HI TECH HOME

Chinmay Jain ^a, Pallav Jain ^b, Mukesh Kumar ^c, Dr. Pankaj Kumar Goswami ^d, Rahul Vishnoi ^e

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Abstract— "Hi-Tech Home is becoming popular due to its numerous benefits. Home automation refers to the control of home appliances and domestic features by local networking or by remote control. Artificial Intelligence provides us the framework to go real-time decision and automation for Internet of Things (IoT). The work deals with discussion about different intelligent home automation systems and technologies from a various features standpoint. The work focuses on concept of home automation where the monitoring and control operations are facilitating through smart devices installed in residential buildings. Home automation systems and technologies considered in review with central controller based (Arduino or Raspberry pi), web based, email based, Bluetooth-based, mobile-based, SMS based, cloud-based and the Internet with performance The work is concluded by giving future directions home automation Security Research."

NCI4.0-20177

SMART TRAFFIC LIGHT

Ayushi Jain ^a, Ajay Sethi ^b, Rahul Vishnoi ^c

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Abstract- In many metropolitan cities we face the most common problem particularly at peek time of business hour. Everyday struggle and efforts to dozing traffic, pollution and rush driver the biggest cause of frustration, stress and psychological problem. At certain junctions, sometimes even if there is no traffic, people have to wait. Because the traffic light remains red for the preset time period, the road users should wait until the light turns green. To solve such serious problem most of the urban communities are providing ideas and planning to implement updates in our traffic control system as in every field old version are replaced by smart version.

Conventional system does not handle variable flows approaching the junction in addition the mutual interference between adjacent traffic light system, the accidents, the passage of emergency vehicle this all leads to traffic jam and congestion There are Information and Communication technologies that can be used to develop smart traffic control system using sensor devices and other system that sense data.

NCI4.0-20178

Smart Home Based On IOT

Hansika, Megha jain Kamnee Devi

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Abstract- This paper present the design of "Smart Home Based On IOT. The world 'Smart' has been used in various areas and is widely accepted to intelligence. Smart home services one of the represent technologies in IOT field. Smart home systems are controlled by smart phones. Smart home is an application of computing in which the home environment is monitored by intelligence to provide aware services and facilities, safety from fire alarm.

NCI4.0-20179

Unsupervised human activity analysis for intelligent mobile robots Hina Hashmi, Sidharth Jain

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Abstract- Research & Development in Artificial intelligence is growing day by day on a very large scale. Artificial Neural Network is a process of representation human mind that try to simulate its learning process. This paper shows the surveys on artificial intelligence that 1. What is Artificial Intelligence? 2. Comparison between human mind and Artificial intelligence. 3. How beneficial it can in long run or can also bring destruction in Human workforce.

NCI4.0-20180

Social Aspects of Friend Identification and Profile Ranking in Internet of Things Era

Tushar Mehrotra, Gaurav Kumar Rajput, Shakti Kundu, Sandeep Saxena Computer Science, FOE&CS, Teerthanker Mahaveer University, Moradabad, India

Abstract- In this paper a model is proposed to emphasis the use and advantages of profile ranking based upon social contacts or friends' group. The basic idea behind the model is grouping the people socially on the basis of sharing common behaviour, usage patterns of social media or other applications. This model can be easily incorporated with existing technology and prove beneficial from ample of aspects as discussed throughout the literature.

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An overview of virtualization and clustering Gauri Goel, Anjali Singh Gailakoti, Hardik Tripathi Arya Group of Colleges

Abstract- Virtualization is a strategy that consolidates or split processing assets that give at least one execution condition utilizing systems that is equipment and programming division or, halfway or in general machine reproduction, reflecting and others. Distributed computing is known as a remarkable and most recent subject in data innovation. Distributed computing depends on other research fields of registering like HPC, administration processing, virtualization, and network figuring. Today clouds with virtualization are transforming IT. Apart from its popularity, it has some concerns which are becoming hurdles for its wider adoption. In this paper, a study has been made on virtualization concerns.