



SRINIVAS UNIVERSITY
COLLEGE OF COMPUTER SCIENCE AND
INFORMATION SCIENCE

City Campus, Pandeshwar, Mangaluru– 575 001
Karnataka State, India
Website: www.srinivasuniversity.edu.in

An International Virtual Conference on
COMPUTATIONAL PHYSICS IN
EMERGING TECHNOLOGIES
(ICCPET'2020)

01st August, 2020



BOOK OF ABSTRACTS

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BOOK OF ABSTRACTS

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ICCPET2001

Dynamic Traffic Grooming in Hybrid Elastic Optical and Wimax Networks?

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ABSTRACT

The tremendous growth in internet traffic and ever-increasing demand for higher data rates have necessitated cost-efficient scalable network architectures. Optical networks combined with WiMAX forming a hybrid network is one such structure. The existing Wavelength Division Multiplexed Passive Optical Networks suffer from huge bandwidth wastage when the demands are very small compared to the channel capacity. To overcome this drawback, we have integrated an elastic optical network as a replacement for the existing passive optical network. Here the routing and resource allocation algorithms are formulated for an integrated elastic optical network with Worldwide Interoperability for Microwave Access network (WiMAX) (i.e. optical network, wireless network, and optical to wireless/wireless to optical network). Our proposed algorithms efficiently utilize channel capacity and network resources.

Keywords: BVT (Bandwidth Variable Transponder)_ POLT (Programmable Optical Line Terminal)_ PONU (Programmable Optical Network Unit)_ WiMAX (World Interoperability for Microwave Access Network)_ WDM (Wavelength Division Multiplexing)_ PON (Passive Optical Network)_ Traffic grooming, Elastic Optical Network (EON)

ICCPET2002

Data Processing and Management in IoT and Wireless Sensor Network

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ABSTRACT

The deployment of internet over larger scale may introduce huge challenges based on data processing. The enormous amount of IoT based data needs design based solution for faster data processing and improving its extensibility and adaptability. Based on various IoT based data processing, servicing technologies may provide data-centric models for scalable services. This work concentrates on an extensive review towards the scalable realization and acquisition of data for process. This IoT based services are larger enough to be concentrated. This review gives an insight towards the data processing and management in IoT and sensor based networking.

Keywords- IoT, sensors, data processing, management, service provisioning.

ICCPET2003

Production of X-Rays Using X-Ray Tube

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ABSTRACT

X-rays are usually the most common form of electric magnetic radiation. Technological developments in imaging have resulted in increasingly powerful and guided X-ray rays, and also growing use of visible light in adolescence microbial tissues and structural elements of materials like concrete. Since its discovery in 1895 X-ray has been commonly used in medication and some areas of technology, science and engineering. The X-ray tube is an essential component of each X-ray union, and in its early stages scientists and doctors utilized gas ion tubing. X-rays are generating because fast-moving electrons suddenly decelerate when they collision with the target anode and interact with it. Therefore, x-ray tube absorbs and dissipates a large heat charge in order to achieve adequate radiation output for digital radiology influencing the structure and function of a x-ray source. An x-ray tube's key components include electrode and counter electrode frames, rotor and stator, and tube cover. The X-rays generated have waveform features similar to other electromagnetic waves. As x-rays come across matter, the small wavelength of radiation defines their property. Most of the materials are transparent to the x-ray and radiation will not transmit lead and other dense materials. Throughout this paper, we discuss X-ray machine, characteristics and features of x-ray, X-ray source modules, x-ray applications in a broad range of domains to discuss x-ray background, manufacturing and x-ray identification.

Keywords: X-ray, Electrons, Anode, Cathode, Beams, Compton Effect, X-ray tube

ICCPET2004

Performance comparison of two class boosted decision tree and two class decision forest algorithms in predicting fake job postings

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ABSTRACT

During the Corona Virus Disease 2019 (COVID 19) period, online activities have become a necessary thing in everyone's life. However, in electronic recruitment, fake job postings have been started by scammers to get people's personal information and scam purposes. Many businesses prefer to post their vacancies electronically so that job applicants can access them quickly and timely. But this purpose may be one form of scam on the part of the fraud individuals because they give job applicants during terms of taking money from them or collecting their personal information for involving in cybercrimes. Fake job posting advertisements can be written against a reputable firm for breaching its reputation. The fraudulent post-detection work draws proper attention to obtaining an automated tool to identify fake jobs and report them to people to avoid applying for such situations. At present, many machine learning algorithms have been used to detect such fraudulent posts. But, the performance of such algorithms to be measured and compared to find a proper algorithm to incorporate in identifying fake things. In this research, the use of a proposed model with the help of Microsoft Azure Machine Learning Studio tested a comparison study on the performance of a two - class boosted decision tree and two - class decision forest algorithms. Researchers used F1 Score, Recall, Accuracy and precision to compare those two algorithms. Results showed that a two - class boosted decision tree is better for detecting fake job posts than the two - class forest decision algorithm. Thus, a two - class decision forest algorithm can be used to find and identify false or gossip messages, tweets, and social media publications.

Keywords: Two class decision forest, Fake job postings, machine learning, MS Azure and Two class boosted decision tree

ICCPET2005

PSA-MP: Path Selection Algorithm for MANET depends on Mobility Prediction to Enhance Link Stability

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ABSTRACT

Link failure is a much crucial issue to be addressed for improving the stability of the routing. Selection of a stable path is an important task since nodes are mobile. The instability of a link leads to frequent link failure, which further causes to link re-establishment. In this paper, a Path Selection Algorithm based on Mobility Prediction (PSA-MP) is proposed that uses Mobility, Direction and Link Expiration Time (LET) as metrics to evaluate the link stability. In the existing algorithm, if any link gets fails during the link-establishment phase, it informs the previous node for selecting alternate link. But, in PSA-MP the alternate link is selected before a link fails by predicting Mobility, Direction and LET of nodes. As a result, it reduces link re-establishment delay. Ultimately, PSA-MP reduces E2Edelay, which in turn boosts Packet Delivery Ratio (PDR). Eventually, link stability is enhanced in MANETs, which is the focus of this paper.

Keywords: Mobility prediction, Direction, Link failure, Link stability and Link re-establishment

ICCPET2006

Spectroscopy Analysis for Quality Control Measurement in Waste Management

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ABSTRACT

This work explains about the physico-chemical characteristics of composites to evaluate the applicability in various purposes over agricultural area. Spectral characteristics of compost materials are computed with spectroscopy with Fertility index and clean index. This FI of composites was observed for sampling with various classification of higher fertilizing potential. Composites are utilized as fertilizer owing to low fertilizing potential. The concentration has been determined within permissible limits of fertility standards. It is known that these composites are a more appropriate option for waste processing as they diminish the weight of organic waste. This analysis is performed with spectroscopy analysis.

Keywords- composites, spectroscopy analysis, waste management, agricultural region, quality control

ICCPET2007

Coordinate Access System for Live Video Acquisition

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ABSTRACT

Biometric systems are the most advanced access technology developed so far in the 21st century. It does not even require to carry key cards or passwords in mind. Today most of the commercial and private entries are protected by biometric recognition systems like fingerprint scans facial recognition, retina scans, voice matching, etc. Even our phones, laptops, and daily access devices are equipped with biometric systems. In banks, the PCs are secured by the combination of passwords and fingerprint scans. Biometric scans are considered the most secure access technology so far. Our paper is to examine whether they are secure? Should we rely on them with our hard-earned money and social identity? Is there any way we can use these services without actually compromising our data and security? Our observation is on our digital identity. Promoting digitization in every department brings our topic in the picture. All our information is saved in our phones, our daily routine, whom we talk, what we purchase, whom we chat, where we travel, etc. Almost every smartphone has biometric fingerprint locks which means our phones have our fingerprint scans in database and with internet blend it's tethered worldwide. Our fingerprints are connected to our bank accounts, PAN Cards, Passport, and SIM Cards using Aadhar Cards. If someone has our fingerprint they can easily reach our Aadhar Card and through that to all our personal information. Most of the phone companies are Chinese, Korean, German, and American. As per their country policies, they must share their data with the governing authorities. We aim to create a security system without actually using the biometric scans. The system is an advancement of the biometric system but with better accuracy and intelligence. We interface image acquisition tools to live track the red color things. The web camera or inbuilt system lens can be used as the acquisition system. When the red color object is moved in front of the lens it shows the corresponding coordinate of the object shown. We use these x and y coordinate of the objects as the authentication points. If the correct value grant access is $120 \leq x \leq 122$ means the system grants permission only if the value of x=120,121 or 122 is obtained. Now, this is tricky. Even if you know the correct value also, it is very difficult to bring the correct point. Think about if you don't know the point and it is also possible to make it much difficult by adding y coordinate so if the desired point is x=10, y=12 (10, 12) it is way more difficult. Each point is a possible password candidate and the screen of any device have megapixels where 1 Megapixel=10⁶ pixels. Each pixel is a possible key or password entry. It can keep all our information safe and secure. We use a microcontroller and motor driver connected gate to demonstrate the result.

Keywords: Aadhar Card, SIM, PAN, Coordinate, Megapixel

ICCPET2008

TRP Channelized Parallel Judgment: An Intervention in Judicial Process

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ABSTRACT

There are several issues ahead of the Indian Judicial System to make the bridge between the righteous decision and its acceptance by the country as well. One of the most challenging issues in recent days for the Indian judiciary is trial by media. Over the past fifteen years, the dominance of print media in the journalism industry has only increased. With the enormous development of information technology, the number of television channels and social media is increased. With the increase in television channels, competition for the Target Rating Point (TRP), the involvement of the media in the judicial process is increasing, as it is being debated and discussed with guests in the name of debate on pending sensational cases. The Supreme Court of India and the State High Courts have issued various orders not to investigate the pending cases and not do a trial by media. There are several incidences when the case under trial got parallel judgment by the people through the media point of view. Media hold the great power to channelize the people mindset and perspective for a particular case which sometimes outbreaks as the interference to judicial judgments. It was tried several times to scrutinize the authority of media in cases that are under trial but the results are not satisfactory as mostly it is considered against the public sentiments. Neutral reporting can solve the issue to a satisfactory extent. We considered that point as well. Our paper deals with the detailed analysis of several judgments with media connection.

Keywords: Target Rating Point (TRP), Parallel Judgment, Neutral reporting

ICCPET2009

The Perspective of Indian Economy with Post Covid-19 Scenario

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ABSTRACT

COVID-19 is the global pandemic that shook the world way higher than any nuclear attack would have been. The economy of a country is one of the most important parameters to run the smooth functionality of the overall ecosystem. As per the report of the ministry of statistics, India's growth in the fourth quarter of the fiscal year 2020 to 3.1%. As per the World Bank, the pandemic has suddenly increased India's economic risks. The World Bank and rating agencies revised India's growth for the year 2021 and it is shocking to know it is the lowest of the last three decades. The degradation in GDP strongly reflects the deep recession and a big problem coming ahead. During lockdown around 14 crores (140 Million) people lost their jobs and many got their salaries cut. India lose 32,000 crores daily during lockdown of 21 days [1]. Our paper deals with several countermeasures against dropping the economy, the steps taken by the Indian government to resolve the issues. We also look over the solutions implementable as per the Indian perspective.

Keywords: COVID-19, GDP, Million etc.

ICCPET2010

Contingencies in Behavioral Mode: Enhancing Player's Adaptive Ability

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ABSTRACT

Metamorph is a stealth action RPG with both open world and mission-based settings. Adopting the elements of cyberpunk and capitalistic system with immense number of AIs, this game is set in a futuristic-style city with four main districts, each with different culture and building design. The player will play as Centauri, a cyborg who joins Private Sector Resistance in order to stop the Private Sector that produces war machines which are in form of droids with artificial intelligence from colonizing the world. There is a wide range of enemy types, two gameplay styles and various game mechanics in order to complete the missions, this game focuses on player's adaptive and cognitive abilities throughout the levels.

Keywords: Stealth, Action, RPG

ICCPET2011

Data analysis on Corona Virus Disease (Covid-19) - Its Challenges in the Midst of Pandemic

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ABSTRACT

The world is experiencing a infectious and deadly disease Novel Corona Virus termed as Severe Acute Respiratory System (SARS-Cov-2) since December 2019, which was originally referred to as 2019-nCov. The Covid-19 is declared a pandemic by World Health Organization (WHO) which means it is highly contagious and deadly. This is categorized as novel SARS-Cov-2 virus. The Covid - 19 pandemic has affected the whole world and continuous to cause immense disruption across the globe and poses a serious threat to physical and mental wellbeing. This paper consists of Introduction, Challenges, Literature Review, Data Analysis and Conclusion. The introduction part gives the information about Covid-19, precautionary measures to be taken to avoid Covid-19. Then discussed about challenges and opportunities prevail in Education, Climate Change, Technology, World Economy, Medicine and Health Care System, Migrant workers and people who work from home. It also helps to draw meaningful inferences through analysis to understand the spread of Covid-19 based on freely available datasets in GitHub Repository from 1st April, 2020 to till 20th July, 2020. The result of the data visualization analysis shows total numbers of cases and new cases added day wise, and the relative number of confirmed, recovered and death cases and top three states which are most affected in India are shown.

Keywords: Novel Corona Virus (Covid-19), SARS-Cov-2, MERS, Data Analysis Process, Challenges and Opportunities.

ICCPET2012

Arduino Based Authenticated Voting Machine (AVM) using RFID and Fingerprint for the Student Elections

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ABSTRACT

The guiding principles of democracy are free elections. Through elections, people reaffirm their voice, their beliefs, and select someone whose ideas support them most. Voters will elect their representatives via elections. The purpose of the elections is not only to decide the outcome but also to give the winners credence, also for those voters who did not bother to vote for them. The need to hold free, equal, and secret elections is emphasized here. It involves the supervision of elections by free, accountable, impartial and autonomous electoral bodies. As the phrase is 'today teens, tomorrow's citizens,' the student community needs the process of elections to be involved, trained, and acquainted with. Under this respect, the institutions of higher education hold elections in the form of general elections to the Office of the student councils. By this student will receive first-hand information about filing nomination, scrutiny of papers, withdrawing, canvassing, addressing, and most importantly voting. The use of technology in voting will make it easier, more effective, and less prone to breaches of security. Technology will boost and speed up the safety of all votes and make the counting and automated verification much more effective. The design of an advanced voting system is a difficult task as many main requirements have to be met. The secrecy of a poll should be maintained. No proof of which candidate gets particular voting shall be provided by the voting system. The authors implemented the Authenticated Voting Machine in the College elections in this paper to ease the process and improve transparency. The concept is still in its infancy and requires more research to keep it stable and theoretically strong. To ensure protection, the model uses radiofrequency and fingerprint recognition.

ICCPET2013

A Comparative Study of MPPT and PWM Solar Charge Controller and Study of the Integrated System

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ABSTRACT

The most popular renewable energy system today under implementation is the solar energy system. The reason is that the solar energy can be implemented at an individual house or industry level fulfilling the small energy requirements and at large scale fulfilling the commercial requirements at megawatts. In most cases the solar energy is used to store the energy in battery backup along with the energy utilisation to the load. The energy storage needs a variation in the flow of current as required and a constant potential difference between the two terminals. But the solar panel generates a current flow as well as the potential difference purely depending on the sun light. To convert the solar energy generation to the required format the charge controller is used. There are various methods of charge controllers which will convert the solar energy into the storage required format. Among them the most popular charge controllers are PWM based as well as MPPT technology based. This paper highlights the benefits of PWM and MPPT technology. The paper also highlights the differences between the two types and gives a conceptual model of integration of both MPPT as well as the PWM solar charge controllers. The conceptual model shows how to balance the storage backup as well as the load so as to utilize the complete solar energy thus produced.

Keywords: Solar energy, MPPT, PWM, integration, battery, backup

ICCPET2014

A Hybrid Approach for Prediction of Stock Arcade Price Index by Using Different Machine Learning Algorithms

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ABSTRACT

Machine Learning is used in many data analytics problems to predict the future with more accuracy. The prediction of the trends of stocks and index prices are important issues to market participants. One of the best important factor is Stock market which fascinates themoney makers to make the investmentso that there is a development of financial growth across the country. Stock exchanging volume incorporates the quantity of parts purchased and sold which is communicating in regular routinei.e, daily basis. In the proposed work, the main objective is to predict the trend of Facebook stock exchange using s and p indexes by using variousMachine Learning algorithms. The proposed work uses supervised Machine Learning algorithm to achieve the results. At the same time the arcade of Facebookstock is predicted in terms of either positive or negative. The result proves that the performance of Facebook stock exchange can be predicted efficiently..

Keywords: Machine Learning, Neural Network, Big Data, Prediction, s and p index.

ICCPET2015

Real-Time Controlling of Traffic Signals

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ABSTRACT

Since urban traffic clog has become a significant issue for huge urban communities as of late, we follow the respective traffic signal for no accident's and time management with the system is used these days. Moreover, the street traffic is utilizing methods for quick away from traffic in the city's this causes them to move in vehicle and other vehicles for various businesses with various area and weights are diminished in the long run by the decrease of the traffic. Each place follows different traffic conditions concerning their lanes. As just nearby data is required, a disseminated power plot in the street organizes is separated among a few specialists is proposed. Besides, to quicken the blockage dispersal process, the totaled condition of every specialist is brought into the exhibition record and offset with its neighboring administrators. The traffic signal is used for transmission of the data about the emergence vehicle's that are inside the traffic this is the seduction of traffic congestion cleaning and giving way for a vehicle for transportation of the patient to the hospital control over the traffic and the vehicles in the junction reduces them quickly scoot the vehicle's.

Keywords: Stability, Congestion blockage, Traffic capacity

ICCPET2016

Modeling an Intelligent Healthcare Management System

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ABSTRACT

An intelligent healthcare management system is composed using mobile devices and sensors. These systems may co-ordinate patient's healthcare data and transform it to higher level standards. This data will be given to sever of the system. This lifetime of the device has to be identified with feasibility that has to be increased, memory usage is lesser than 100 KB, and it works over every data and among various resources. However, anticipated system may reduce waiting time of transposing data and these channels were utilized by server of healthcare centers. In Healthcare management system, single task is connected among sensor and mobile devices and gather physiological health information. After operating sensor information, it is given to healthcare server. API for smart devices is composed of intelligent data management system using sensors. This application is developed with main page and sub-pages that are able to enter information regarding sensors and patients health information.

Keywords: Healthcare Data analytics, Data analytics, Modeling, Intelligent Healthcare, Intelligent Healthcare Management.

ICCPET2017

Enhanced Prediction of Customer Purchase Intention Using Linear Support Vector Machine in Digital Marketing

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ABSTRACT

Digital marketing is taken into account the well-liked method comparing to traditional marketing. It can be used by both researchers and academicians for social media marketing and to predict the customers purchase intention. The Proposed work revolves around some valuable information and processes in accordance to the behavior of customer during the online purchase. Business owners, scientists, researchers all post their ads, details on the Web so that they can be linked to owners quickly and easily by web scrap searching on searchable product websites to gain a lot of data from websites. Details on websites are stored in an unstructured manner. To avoid this issue, Web Scraping helps to gather unstructured content and turn it into a structured type that can be used for further study. Hence, customer price and rating of product evaluation and prediction has become an important research area. The analysis is done by Support Vector Machine (SVM- Linear) to gather several information and provide variation analysis. The major goal remains to investigate and analyze the extracted dataset using ML oriented algorithms with best accuracy possible. The analysis has a proper path to sentimental analysis of parameters in accordance to the ratings and price of the product to find proper accurate calculations.

ICCPET2018

Plant Leaf Disease Classification and Detection System Using Machine Learning

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ABSTRACT

In a developing country like India agriculture plays a noteworthy role. Agricultural intervention in the livelihood of rural India indulges by about 58%. Among the agricultural products, tomato is one of the most used crops. Thus, preventing significant loss in quantity and yield of tomato is majorly dependent on recognition and classification of diseases a tomato plant might possess. Latest and fostering technologies like Image processing is used to rectify such issues using different types of techniques and algorithms. Initially, the leaves of a tomato plant get affected, when plant develops a particular type of disease. In this project, four consecutive stages are used to discover the type of disease. The four stages include pre-processing, leaf segmentation, feature extraction and classification. To remove the noise we are doing the pre-processing and to part the affected or damages area of the leaf, image segmentation is used. The k-nearest neighbors (KNN) algorithm, which is a guided, supervised and advance machine learning algorithm, is implemented to find solutions for both the problems related to classification and regression. During the terminal stage, user is recommended with the treatment. Mostly live plants are adversely affected by the diseases. This paper imparts representation of leaf disease detection employing image processing that can identify drawbacks in tomato plant from images, based on color, bound and texture to give the brisk and reliable results to the farmer.

Keywords: Image processing, k-nearest neighbour, feature extraction.

ICCPET2019

User Authentication: A Three Level Password Authentication Mechanism

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ABSTRACT

User authentication is one of the cutting edge research to provide access to legitimate users. A number of mechanisms like biometric, image based, graphical based have been implemented. In this research work a three level password authentication is proposed and reported experimental results. From the result analysis it is found that the three level authentication provides reliable security level in comparison to the existing mechanisms.

Keywords: text-based password, authentication, color-code detection, bot attack recognition, graphical password.

ICCPET2020

Analyzing Atmospheric Pressure for Fixing Plant Cultivation Period

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ABSTRACT

The efficiency and vitality of plant growth shows some limitations in developing application as bio-fertilizer. To enhance these kinds of limitations, potential fixation of pressure towards plant cultivation has to be improved. Motility and atmospheric pressure were monitored during this treatment process and protein level has to be monitored periodically. During plant cultivation process, there are no significant changes in germination however yield and growth of plants are drastically improved. The plants have to be tolerant for fungal infections and infected seeds should be handled more properly. The analysis shows the broaden area of treatment for plant cultivation than that of untreated bacteria. The outcomes demonstrate that the motility and plant growth can be improved with gene expression and improved with factors like colonization n roots and improve phyto-hormones and makes improved plant growth and tolerance towards disease.

Keywords- plant cultivation, pressure, infection, motility, gene expression

ICCPET2021

Named Entity Recognition in English Text

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ABSTRACT

Natural Language processing has been one of the challenging field of computational linguistics. Language processing occurs in several steps in which Named Entity Recognition is one of the prominent phase. NER frameworks have been contemplated and created generally for a considerable length of time, however precise frameworks utilizing profound neural systems (NN) have just been presented over the most recent couple of years. We present a far reaching review of profound neural system models for NER, and balance them with past ways to deal with NER dependent on highlight designing and other regulated or semi-administered learning calculations.

Keywords: Natural Language Processing, Chunking, NER, Artificial Intelligence

ICCPET2022

AI in Video Analysis, Production and Streaming Delivery

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ABSTRACT

Video technologies evolve steadily with the evolution of machine learning and artificial intelligence which use cloud platform and video transcoding for better video production, delivery and live streaming. AI has profound effect on media and film industry, from content delivery to viewer's experience. AI serves the richer and realistic experiences in personalization of user experience for video production and analysis process. AI changes the fact of manual tasks and facilitates deep content indexing. Quality assessment becomes easier when AI scrutinizes the content. Personal and interactive video provides new delightful viewing experiences. AI generates new level of interactions at scene by dichotomizing the videos and builds more practical access methods within the content.

Keyword - Artificial intelligence; Digital content; Video production; Video quality; Streaming

ICCPET2023

Image Captioning Using Deep Convolutional Neural Networks (CNNs)

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ABSTRACT

Earth is challenging to label satellite image clips with atmospheric conditions and various classes of land cover and land use. We proposed an algorithms to help the global community for a better understanding that where, how, and why deforestation take place all over the world. Upcoming development in satellite imaging technology have set grow to new opportunities for more precise investigation of both broad and minute changes occurring on Earth, including deforestation. Since 40 years, almost a fifth of the Amazon rain forest has been cut down. To estimate and analysis the forest this application is developed. Satellite images are trained on deep convolutional neural networks (CNNs) to learn image features and used multiple classification frameworks including gate recurrent unit label captioning and sparse_cross_entropy to predict multiclass, multi-label images. By fine-tuning an architecture consisting of the encoder of pre-trained VGG-19 parameters trained on ImageNet data together with the GRU decoder.

ICCPET2024

Analysis of Machine Learning Algorithms and its Impact on Current Digital World

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ABSTRACT

Over the years, machine learning has shown its applications in various fields. Machine learning is an automated learning system that gives computers the dominancy and capability to learn on their own. Nowadays, a large amount of data is available everywhere. It is therefore very important to evaluate these data so that useful information is derived and an algorithm based on this analysis is generated. This can be done by machine learning. Machine learning is an important function of artificial intelligence used to develop algorithms based on trends in data and experience.

Keywords: perceptron, neural network, target, support vectors, decision trees

ICCPET2025

Performing Experimentation with Physics Model to Predict Statistical Weather Condition

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ABSTRACT

Ice in wind turbines may cause a tremendous reduction in energy conservation. As, ice over turbines are not considered to be a traditional weather prediction data, prediction towards power can leads to higher error. This work anticipates a statistical approach dependent on Naive bayes regression to identify production loss has to be analyzed. It measures input of regional weather condition and various other conditions, and identify power production loss for 48 hours to enhance prediction of next generation energy loss. This can be trained with various prediction measurements and drastically enhances other conventional approaches for longer period. It may diminish absolute production error by ~100kW and it computes its skill with other models. Prediction of weather data is considered to be one of the effectual data for diverse statistical prediction and some calculations are not so absolute. This method can be computational less cost and may be trained again for next prediction.

Keywords- weather prediction, power loss, ice over turbines, naive bayes, regression

ICCPET2026

Analysis of Surface Quality Measurement with Classification Approach

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ABSTRACT

This investigation provides a methodology for surface quality measurement. In machine based vision, an optical inspection is validated to identify defects over materials. As well, normalization approach is used to process homogeneous thickness. With compensation procedures flaws are identified and analyzed. However, after defect identification, decision rules are defected for appropriate classification which offers optimal performance and diminishes tuning complexity. The anticipated approach is effectual and fulfils inspection requirements. Experimental outcomes may validate performance of anticipated approach to recognition rate and inspection speed.

Keywords: quality measurements, defect identification, classification, decision making, flaws

ICCPET2027

Hydroponics Cultivation Using Real Time IoT Measurement System

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ABSTRACT

The concept hydroponic cultivation is performed in greenhouses or in various flat factories. This sort of cultivation is generally evaluated with pH and electrical conductivity. It may not provide complete information regarding any imbalance that is encountered in cultivation process. This causes poor yield or wastage of resources. Thus, to overcome these limitations, an IoT measurement system has to be implanted in this cultivation process, where sensors and actuators may measure the corresponding reading when needed and given to man power. Therefore, imbalance in attaining nutrients is eliminated by constant monitoring of resources towards plant cultivation. This facilitates farmers to handle the nutrients issues that are encountered in cultivation. The performance measurement of the system developed was computed with feasibility of IoT system for automatic measurements. The outcomes of the systems are computed and validated for further processing. Some specific measures are considered where there is no specific relationship among standardized analysis. The sensitive responses have to be examined and analyzed.

Keywords- IoT, Hydroponic, management system, cultivation, indicators

ICCPET2028

Computational Physics Methods and Algorithms

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ABSTRACT

Computational Physics plays a major role in solving the physical problems numerically, which cannot be achieved using analytical methods due to the time constraint and complexity of the underlying physical systems. Computational physics combines the theoretical and experimental aspects of conventional scientific study. The advancement in the field of computing and numerical analysis helped computational physics to solve the problems associated with molecular modeling, protein folding, atmospheric science more effectively. In this paper, we review some of the important methods and equations used in Computational Physics in order to solve mathematical problems numerically. Integration, Root finding, Ordinary differential equations, Matrix eigenvalue problems, system of linear equations and Partial differential equations along with some of the well-known methods are briefly discussed. Challenges and applications associated with Computational Physics are also reviewed.

Keywords: Integration, Root finding, Ordinary differential equations, linear equations, Integration, Matrix eigenvalue

ICCPET2029

Astute Remedy for Autism “Developing an Interactive Real Time Application Along with a Hardware Product to Help Youngsters with Autism”

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ABSTRACT

The general terms of complex disorders of brain development are Autism spectrum disorder (ASD) and autism. Difficulties in social interaction, verbal and nonverbal communication and repetitive behaviors are characteristics of this disorders. So an interactive application is proposed which will help an autistic child in his or her speech ability along with the verbal communication ability. A complete guide has been prepared to help the caretaker in curing of autism. Also doctors can be contacted whenever needed through the contact numbers specified according to the location of the patient. As children loves to learn new things visually we developed a real time pictographic images to teach them about the known things in their surroundings. Moreover, the child will also be taught about small sentences along with the basic mathematics. Their progress can be evaluated through the module.

Keywords: Autism spectrum disorder, social interaction, communication ability, visually, pictographic, modules

ICCPET2030

Expense Manager Application

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ABSTRACT

Mobile applications are top in user convenience and have overpassed the web applications in terms of popularity and usability. There are various mobile applications that provide solutions to manage personal and group expense but not many of them provide a comprehensive view of both cases. In this paper, we develop a mobile application developed for the android platform that keeps record of user personal expenses, his/her contribution in group expenditures, top investment options, view of the current stock market, read authenticated financial news and grab the best ongoing offers in the market in popular categories. The proposed application would eliminate messy sticky notes, spreadsheets confusion and data handling inconsistency problems while offering the best overview of your expenses. With our application can manage their expenses and decide on their budget more effectively.

Keywords: Android platform, Personal expenses, Group Expenses, Investment, Stock Market, Split Bills

ICCPET2031

Future enhancements and propensities in forth coming communication system – 5G Network Technology

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ABSTRACT

Network technology and mobile technologies are two essential and booming technologies in today's scenario that have emerged and quickly evaluated in terms of hardware, communication media, and architecture. Based on the communication system there are massive developments in underlying devices with hardware, software, and entire architecture. All we experienced with 2G, 3G, and 4G communication system, and in the future, we will going to experience next-generation communication system 5G. In underlying technology there have been many improvements and advances, mainly with data transfer speed and unlimited bandwidth that we have never experienced before. Not only is this technology limited to voice and data, but we also expect some IoT revolutions, a system for mobile communication, automated vehicles, industrial and manufacturing automation, human-machine interface, logistics and warehousing, etc. So this 5G technology gives the opportunity for researchers to perform research in related technologies. Here we analyzed the need, concept, service and features of fifth generation communication technologies in this paper. It was proposed the core technology incorporated with 5G and their architecture. Future trends and applications influenced by the 5G communication system were analysed.

Keywords: 5G, fifth generation, Network, IoT, Network, Security, LTE, Communication Technology.

ICCPET2032

Effectiveness of ATM and Bank Security: Three Factor Authentications with Systemeticreview

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ABSTRACT

Security is one of the key aspects in despite of time, location and domain. Providing a better security is an essential obligation to all sectors (state and private) and workers. Rendering better security is not only difficult but also fairly impossible due to growth of new technologies and constantly growing Information Technology domain. Rapid Improvement of banking sector provides many acceptable ways of managing the accounts, information and activities. This advancement has been a main driving force to the account activities with the help of Automatic Teller Machine (ATM). With the increase number of ATM usage among the public, hackers also use the technological growth to hack the data / information and apply the fraud actions. The said vulnerabilities have been increasing in a gradual manner and also ATM fraud has spread and become nightmare all around the world. This paper elaborates to mitigate the possible frauds can be happened at the ATM cubical with the hybrid multi-layered security concept. Here, previous studies were reviewed and compared in order to support to develop a system with the less loopholes. A three-layered architecture including PIN, OTP or finger print and pattern lock has been used in this system to mitigate the frauds. 400 students were selected to test the system and 384 students roughly 96% of students have successfully entered their pin number at the first attempt, in the second layer 95% of the students out of 384 students were succeeded and the third layer 99% of the students out of 363 students were success in drawing the patterns. The overall result of this evaluation process shows that, the suggested security tiers can be applicable since the accuracy in performance is better and accepted by the sample selected.

Keywords: ATM, OTP, fingerprint, pattern lock, security

ICCPET2033

An Experiment on Parameter Selection for Landslide Susceptibility Mapping using TF-IDF

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ABSTRACT

Landslide can be considered as one of the most common natural threats faced mostly by the people living in the hilly and mountainous regions. Every year, mostly during the monsoons, landslide disrupts the lives of people living in these areas, at times it also leads to the damage of lives, properties etc.

Landslide susceptibility mapping has become an essential measure for prevention of losses due to landslide. In this paper, some of the most common parameters for landslide susceptibility map pertaining to the hilly and mountainous regions have been identified using TF-IDF method.

Keywords: Landslide, Landslide Susceptibility Map(LSM),Parameter, Parameter Selection, TF-IDF,

ICCPET2034

MathFun: A Mobile App for Dyscalculia Children

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ABSTRACT

Learning disability can vary from dyslexia (reading), dyscalculia (math) and dysgraphia (writing) where it focuses on certain learning disability that is being faced by the children. Dyscalculia is one of the common learning disabilities where in this category children are lack in ability of studying the math. However, with the enhancement of technologies, variety of application can be created in aiding the children learning process such as mobile learning by using mobile app. This paper focuses on the findings from the result of the MathFun app on the effectiveness towards enhancing the learning process for the learning disability children. MathFun is a mobile app created by following the Calculic Model approach for Malaysia Dyscalculia children. Usability was performed in order to assess the usability and verifying the effectiveness of MathFun. This study involved 3 teachers and three children. Descriptive analysis was performed from the collected data. Based on the outcome, it's shows that the MathFun app able to help and improve the learning and has the potential to be use in the classrooms.

Keywords: Dyscalculia, Learning Difficulties, , Mobile Application, MathFun, Usability

ICCPET2035

MathFun: Examining the Effectiveness of Calculic Model in Designing App for Dyscalculia Children

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ABSTRACT

Learning disability can vary from dyslexia (reading), dyscalculia (math) and dysgraphia (writing) where it focuses on certain learning disability that is being faced by the children. Dyscalculia is one of the common learning disabilities where in this category children are lack in ability of studying the math. However, with the enhancement of technologies, variety of application can be created in aiding the children learning process such as mobile learning by using mobile app. This paper focuses on examining the design model (Calculic Model) in designing a mobile app for Dyscalculia children. MathFun is a mobile app created by the mobile app developer while following the Calculic Model approach for Malaysia Dyscalculia children. The outcomes of this paper view on the effectiveness of the model towards building a mobile application for these children. Usability was performed in order to assess the usability and verifying the effectiveness of MathFun. This study involved 3 teachers and three children. Descriptive analysis was performed from the collected data. Based on the outcome, it's shows that by using the suggested model there is an increased in the acceptance and usability of the application by the children.

Keywords: Dyscalculia, Learning Difficulties, Calculic Model, Mobile Application, MathFun, Usability

ICCPET2036

Public Awareness on How Vape is used as a Tool for Hacking

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ABSTRACT

Nowadays e-cigarettes and vaping devices are more popular than tobacco cigarettes among the youngsters. Most of the youngsters falsely believe that vaping is safer than tobacco and it is trendier. This research paper is reviewing on how vape is used as a tool for hacking. Based on research, vaping is not only give bad impact to the health but it is also can be used as a medium in transferring malware and to breach the computer system security. A few tweaks and modification of the vape device could make the attacker to transfer the malware to the computer system. Literature review being done on several electronic smoking devices such as e-cigarettes, vaping and JUUL. Statistic on vape users and vape hackers are being done. On top of that questionnaire being prepared and distributed to the public to analyse on public awareness on vape hacking. The method of vape hacking and protection from vaping hackers are also being discuss in this paper. Since vape is using USB to charge the device hence security measures focus more on USB security on how to protect the computer system from the vaping hackers. Several methods can be applied such as disable USB drives and mass storage devices using registry, keep security patches updated, create strong password, control the USB port through device manager or by using a free tool USB drive Disabler/Enabler. There are many others security protection can be implemented but this paper only focuses on several methods as discussed.

Keywords: Hacking, malware, e-cigarette, vape, BYOD, BadUSB

ICCPET2037

Nscanner: Vulnerabilities Detection Tool for Web Application

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ABSTRACT

Internet has been dominating the world nearly a decade. Web application is known to be the most widespread platform of the internet especially when it comes to share resources, e-commerce services, education and business platforms. Since the usage of web applications are increasing dramatically, it's becoming more vulnerable for security attacks. Each year, organizations facing many security attacks towards their web applications. Although many security practices and mitigations have been applying in web application, however there are still some security loophole issues can be found in web application. For instance, these loopholes can be referred as lack of secure coding (standards) implemented in web application, lack of formal security training approach for web developers and improper security testing for their web application. Besides, social engineering attacks also tremendously increasing each year. Many organizations were compromised through phishing attacks due to lack of awareness among users (employees). As a solution to overcome the issues, a research project will be carried out to implement a system called Nscanner to detect Structured Query Language injection (SQLi) and Cross-Site Scripting (XSS) vulnerabilities for web application. Moreover, the developer also will design a malware detection feature based on machine learning approach to detect malware found in attachments from emails in order to prevent malware phishing attacks.

Keywords: Web Application Vulnerabilities, Phishing Attack, SQLi, XSS, Machine Learning, Hacking, Social Engineering

ICCPET2038

A Customized Data Recovery Tool

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ABSTRACT

Data recovery is the process of salvaging deleted, formatted, corrupted, damaged or inaccessible data from the storage media as it cannot be accessed through normal way. There are two types of data recovery which is physical recovery and logical recovery. Physical recovery needs special equipment to repair the damaged parts of storage device like scratched plates, stalled spindle, fried chip, etc. and this process need to be undertaken in clean and controlled environment to extract data from storage device. Logical recovery is a software-based solution that recovers data from storage device which faced logical error in operating system or accidental user deletion. This paper will discuss on logical recovery and it is divided into few sections which is public awareness on data recovery, literature review on existing data recovery tool, analysis on user requirements for data recovery tool, proposed data recovery tool functionality and proposed data recovery tool framework.

Keywords: Data Recovery, Forensic Computing, Methods, Techniques, Tool

ICCPET2039

A Review on IoMT device Vulnerabilities and Countermeasures

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ABSTRACT

According to a report by Allied Market Research they have said that by 2021 the IOMT would most likely reach about \$136.8 billion worldwide [12]. This indicates that sooner almost all medical Centre would implement IOMT devices in their Centre and also in their patients' body to get better result. Having a good growth on this it may indicate on the development of medical. It also proves on the movement from traditional medical to technology era medical whereby for checkups patients does not need to turn up as the device of IOMT would present the data.

IOMT devices would allow the Medical Centre to cut cost on certain equipment as they could be done by using small IOMT device. This device is designed to generate data and provide indication for the users. IoMT also saves on the patients waiting time since analysis and prescription can be done on the go and there is no need for queuing up at medical facilities. Appointments can also be scheduled remotely depending on availability of the medical personnel.

Because of the dependence on the internet for the transfer and storage of medical data, there is a big risk regarding data privacy and security. The aim of this research is to explore the vulnerabilities associated with IoMT devices that focusing on Mobile Cardiac Telemetry and Respiro Smart Inhaler system and suggest suitable protection mechanisms against the possible attacks to the IoMT devices.

Keywords: IoMT, Mobile Cardiac Telemetry, Respiro Smart Inhaler. Vulnerability, countermeasure

ICCPET2040

E-Commerce System for Sale Prediction Using Machine Learning Technique

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ABSTRACT

E-commerce is a platform where people are able to buy and sell goods. The main purpose of e-commerce is to provide convenience to the customers where they do not have to go to a physical store to make a purchase. As they will be able to make the purchase online and the item will be in their door step in the following days. In 2019, a total of \$603 billion worth of sales were done via e-commerce in the United States compared to 3.17 billion in retail sales in the United States. The purpose of this study was to build machine learning algorithms which are able to forecast the sales of the e-commerce platform. A research was being done to understand the literature reviews based on similar systems and similar studies that relates to the researcher project. The purpose of doing this literature review is to understand which machine learning model was being used by other studies so the researcher will be able to select some of the best machine learning models for this study. Once the researcher has selected the models, he will then build the models and test their accuracy, error and performance. At the end, the researcher will compare all of the model's accuracy and errors to get the best model which have low error and high accuracy for forecasting sales. The model which have been fulfil the criteria, will be integrated into the system which is being built by the researcher. The system will give a view of the current and forecasted sales.

Keywords: E-commerce, machine learning, sales forecasting, ARIMA, SARIMA

ICCPET2041

IoMT: A Review of Pacemaker Vulnerabilities and Security Strategy

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ABSTRACT

Internet of Medical Things or IoMT is known as the most wanted technology in the healthcare sector. Almost 420 million connected device have been deployed globally to all healthcare facilities and with around 70 million more devices expected to be deployment by early of 2020 [4]. This types of technology and connection of medical devices to healthcare IT framework is not only beneficial to the patients but facilitates the structure of the traditional healthcare system of delivery information from department to department in healthcare environment. As a result to this budget for healthcare management and handling can be reduce and use for better improvement. However, with the advantages of IoMT, all the security behind every IoMT devices need to be considered. This paper is reviewing on several IoMT devices such as smart pen, implantable cardiac devices (pacemaker), wireless vital monitors and several other devices in terms of its functionality and vulnerabilities that might expose the devices to the attacker. More detail discussion is focusing into Pacemaker which is one of the IoMT devices. Several security strategy and solutions to minimize the vulnerabilities of IoMT devices are also being discussed.

Keywords: IoMT, pacemaker, vulnerability, security strategy, security solutions

ICCPET2042

A Machine Learning Model for Remittance Business

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ABSTRACT

The domain of this research is about remittance business in which the term remittance is known as a form of money transfer that involves in sending money to other countries. The goal of this research is to build a machine learning model for a remittance business. The researcher will go through an in-depth research on the literature review to find similar systems or similar projects that somewhat relates to the title of the researcher's final year project as this will be done for the means of choosing and finalizing the selection on the machine learning algorithms to be used for this project. The researcher will likely to be selecting and using three machine learning algorithms that are appropriate to be used for classification problems. Upon finalizing on the selection of the model based on different sets of evaluation metrics, the researcher will then carry out in building a predictive model and compare each model to select the best performing one. The best performing algorithm will then be integrated to a system where it takes user inputs (customer data) and comes out with a prediction stating if the data that was inputted by the user, labels it as a low or a moderate risk customer.

Keywords: Machine Learning, Knowledge Discovery in Databases (KDD), Customer Risk, Evaluation Metrics

ICCPET2043

An appraisal on the methods and techniques of recommender models for personalised marketing campaigns

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ABSTRACT

Recommender models for personalized marketing empower businesses to provide personalized recommendations of goods or services to customers to fulfil their requirements, thus ultimately improves the customer buying experience. Various recommender models powered by robust machine learning algorithms were reviewed on the methods and techniques to appraise its performance concerning the personalized marketing campaigns. Recommender models can be broadly categorized into four types such as content-based, collaborative-based, knowledge-based and hybrid-based. The content-based recommendation is suitable when the system, user or product is new where classification and regression algorithms are mostly implemented. The collaborative-based recommendation is suitable when a more accurate prediction is required where Neighbour-based models, Bayesian methods, rule-based models, decision trees, and latent matrix factorization models may be implemented in this scenario. Knowledge-based recommenders are well suited for recommendations that address explicitly defined user requirements. Different types of recommenders use different sources of data and inherently have different strengths and weaknesses. Selecting the suitable recommender model with the consideration of the scenario and domain of application is very crucial. Therefore, an in-depth research is required and done on the emphasis of the application of recommender models in the personalized marketing especially on the hybrid models with a more efficient deployment for mass applications in this contemporary data-driven business world.

Keywords: machine learning, personalized marketing, recommender models

ICCPET2044

Real-Time Sign Language Learning System

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Abstract

Learning sign language can be fun and easy when a suitable learning method is used. Different people would have different interest level in learning sign language, and this also can be affected by their communication skills. With the traditional teaching method, there would be a lot of constraints that could stop the learner from learning effectively. This work proposes a learning platform to address these concerns and facilitating sign language learners in gaining the required knowledge. The developed web application includes online learning materials such as videos, and incorporates interactive elements such as a practice session to increase the efficiency of the learning process. The findings indicate that the Sign Language Learning System could be effective for those who are interested in learning sign language.

Keywords: Sign language, Hearing-impaired communication, Online skills education.

ICCPET2045

Performance Evaluation of Analytics Models for Trends Analysis of News

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ABSTRACT

Microblogging services, especially Twitter, allow the user to share their most recent thoughts, feelings or news freely and almost immediately. Hence, the number of news tweets generated by the news media is increasing exponentially. Mining the valuable data from the large volume of tweets can help increase the revenue of organisations by allowing them to engage with the public faster and better by responding to the latest topics of interest. In this work, mining the hot keywords and being able in classifying the news tweets, trending topic and keywords in the news tweets. Both supervised and unsupervised machine learning models are used. Several machine learning algorithms are being used to compare the accuracy in classifying the tweets.

Keywords: Classification algorithms, Recurrent neural networks, Supervised learning, Text mining, Unsupervised learning, Web mining

ICCPET2046

Easy Ride: A Secure Carpooling Mobile Application for Travellers

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ABSTRACT

The advancement of technology has opened pathways for the rapid development of urban ecosystem. However, the population in urban areas is expected to increase exponentially which may lead to severe mobility problems. Various measures have been implemented by policy makers to mitigate the mobility problems and to provide better transportation facilities to people. Although the efforts are still in infancy stage, they are expected to yield positive results in the long run. In relation to this, the research proposes a mobile application called Easy Ride as an initiative to create an efficient carpooling ecosystem which brings huge advantage to the community in terms of transportation. Connecting people and creating a strong culture of sustainability will be the primary purpose of this application as it serves a path for people to reach out and connect with more travellers. Besides fostering social networks, this application is defined to be cost-effective as it helps the drivers and passengers to share the overall travel expenses. On the other hand, this research describes the agile methodology that has been chosen for the entire development of the application. The system was further tested and validated to determine the efficiency of the overall functionalities and design. The findings indicate that the proposed system has the potential to meet the expectation of the travellers and to enhance their daily lifestyles.

Keywords: carpooling, transportation, travellers

ICCPET2047

Detecting Chronic Kidney Disease from Blood Samples using Neural Networks

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ABSTRACT

This paper proposes an artificial neural network approach to automatically detecting Chronic Kidney Disease through fluid samples taken from patients. The rationale for developing such a system is given, as well as possible benefits to the patients and medical industry. Similar systems proposed in the industry and for diagnosing chronic kidney disease through other approaches such as classification algorithms are explored. A dataset to train the neural network on is collected and features analysed, as well as methodology and tools to be used in the development of the neural network.

Keywords: Artificial Neural Networks, Medical Diagnosis, Data Analysis, Chronic Kidney Disease (CKD).

ICCPET2048

AP~Diet: An Online Healthy Food System for Higher Education Institution

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ABSTRACT

With emerging technologies, online food ordering and delivery services are growing at a rapid pace due to advancement in technologies and changing customer behavior. Consumer's response to the Internet has developed opportunities for many businesses, ranging from small to large corporations in Malaysia. Online banking has given businesses opportunities to expand their online services including online food ordering and delivery services. Online food ordering meets the needs of busy individuals with a hectic and bustling lifestyle by placing their order online through their smartphones, tablets or laptops and receive delivery within a few minutes to their doorsteps. However, there is a lack of platform offering healthy food and especially for those following a specific diet. With busy schedules, most students find themselves ordering junk food online or cannot find the proper meals online according to their specific diet. This research paper proposes an online healthy food ordering and delivery system called AP~Diet for Higher Education Institution to provide students and staffs with healthy food options according to different diets. Extreme programming methodology will be used to develop the online ordering and delivery system. The findings indicated that the proposed system is an effective initiative to promote healthy lifestyles and proper eating habits for students and staffs of Higher Education Institution using the enhanced web service.

Keywords: food industry, e-commerce, keto diet, AP-Diet

ICCPET2049

Optimising e-commerce customer satisfaction with machine learning

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ABSTRACT

Customer insights is the key to the success of e-commerce. Therefore, factors affecting customer satisfaction leading to product purchase and re-purchase should be studied extensively. This study intends to identify the key drivers that influence the satisfaction and the model which can predict the likelihood of customer satisfaction. The outcome would provide insights to prioritise factors that are significant, as well as to provide advice to a wide range of sellers. Four classification machine learning algorithms decision tree, random forest, artificial neural network and support vector machine are evaluated to classify customer satisfaction based on a 3-year historical data from an e-commerce retailer. There were a few challenges with the dataset, such as imbalanced, skewed and missing. Data pre-processing was conducted, and different techniques were evaluated. Of the algorithms evaluated, the best result is achieved by Random Forest with the highest accuracy and reasonable processing time. Meeting the estimated delivery date and the number of days taken to deliver an order is found to be the top two important factors affecting customer satisfaction.

Keywords: E-commerce, Machine Learning, Customer Satisfaction, Predictive Modelling

ICCPET2050

Learning Communication Games for Kids with Autistic Disorder

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ABSTRACT

According to the 2014 BERNAMA study, one out of every 600 children in Malaysia are reported to be born with autism. Today autism is becoming ever more common, but the journey toward a diagnosis took place inside the society's con-text of low ASD awareness, especially in Malaysia. This paper seeks to discuss how the learning communication games can help in early intervention for the autism kids. By developing an application, the paper further discussed the features that can catch the kids' eyes and keep their attention.

Keywords: Electronic learning

ICCPET2051

Environmental Informatics Vis-à-Vis Big Data Analytics: The Geo-Spatial & Sustainable Solutions

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ABSTRACT

The merging of Environment and allied subjects such as Informatics has led to the development of Environmental Informatics. Environmental Informatics is a perfect solution for Environment related activities with different tools, techniques and sub-technologies of IT, Computing, Computer Science or allied branches. However, among the emerging technologies most prominent is the Internet of Things (IoT) and Cloud Computing (Big Data Analytics). This paper provides a comprehensive study on Environmental Informatics with special reference to the applications of Big Data Analytics. This paper describes the basics of Environmental Informatics, including features, functions, nature, including basics of the Big Data, Analytics as well.

Keywords: Environmental Informatics, Ecological Informatics, Big Data, Emerging Technologies, Analytics Applications, Analytics in Environment.

ICCPET2052

Geo Information Systems & Remote Sensing: Applications in Environmental Systems & Management

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ABSTRACT

Geo Informatics is an interdisciplinary field responsible for spatial information related activities. Geo Informatics is close to the Geo Information Science, Geo Information System, Remote Sensing, etc. Geo Informatics is a combination of Geo Science and Information Science and here different kinds of IT and Computing tools are being used such as Database Technology, Network Technology, Web Technology, Multimedia Technology, etc in the spatial data management. Remote Sensing is considered as a component of Geo Information Science dedicated in gathering of information on the different types of objects without physical content and applicable in different areas of the geography, survey of land and different type of geo related areas viz. Hydrology, Ecology, Meteorology, Oceanography and Geology, etc. The term remote sensing is also called as GIS & RS due to their relationship and their importance. The applications of the IT in Geography and allied areas are called as Geo Informatics or Geo Information Science. Similarly the applications and utilization of IT, Information Science and Computing in Environment and allied areas are known as Environmental Informatics or Environmental Information Science. The GIS and Remote Sensing applications in the environment and ecological areas are increasing rapidly and it includes various existing and emerging applications. This paper talks about the applications of the GIS and RS in Environmental Applications and Management.

Keywords: Geo Informatics, Remote Sensing, GIS in Environment, Environmental Informatics, Environmental Management, Sustainable Development

ICCPET2053

Rights of Acid Attack Victims in India

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ABSTRACT

The state of being vehement against women is more often unreported unpleasant emotion caused by the threat of danger, pain, or harm and a mark of disgrace associated with a society that imposes restrictions on women from reporting an occurrence of vehemence or getting help from due authority. This research study mainly focuses on the international perspectives in awarding compensation to acid victims and critically analyze the case study wherein awarding compensation to acid victims and the reason behind the women victimized with acid need to be identified to critically evaluate the inference of acid attack on the gender status in India. And to check the reason behind the successful implementation of Haryana victims scheme features which grants compensation to acid victims. This research follows the non-doctrinal type of research and the sampling method used in this survey is a random sampling method. This analysis is done through the SPSS tool for acquiring better and accurate results and most importantly the survey was made in an authenticated way for appropriate results and also tries to reveal the actual truths regarding these issues. By this research we can understand the Pearson chi-square value is **0.000** which is less than **0.05** and it implies that there is a relationship between and Haryana Victim Compensation Scheme features effectively in awarding compensation and rehabilitation to acid victims and the null hypothesis is rejected

KEYWORDS: Violence, acid, women, gender bias, compensation

ICCPET2054

A Survey on Image Segmentation using Deep Learning

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ABSTRACT

Image segmentation is a critical process in computer vision. It involves dividing a visible input into segments to simplify image analysis. Segments represent objects or parts of objects and comprise sets of super-pixels. Image segmentation sorts pixels into larger components, eliminating the need to believe individual pixels as units of observation. Brain tumour segmentation is a crucial task in medical image segmentation. Early diagnosis of brain tumours plays a crucial role in improving treatment possibilities and increases the survival rate of the patients. Manual segmentation of the brain tumours for cancer diagnosis, from great deal of MRI images generated in clinical routine, may be a difficult and time-consuming task. There is a requirement for automatic brain tumour image segmentation. The method is proposed to segment normal tissues like substantialalba, greymatter, spinal fluid and abnormal tissue like tumour part from are sonance Imaging (MRI) automatically. The system also uses to segment the tumour cells along the morphological filtering are going to be wont to remove background noises for smoothening of region. The project results will be presented as segmented tissues and classification using, Convolutional Neural Network (CNN) classifier.



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B.Sc.	Cardio Vascular Technology
B.Sc.	Perfusion Technology
B.Sc.	Medical Lab Technology
B.Sc.	Renal Dialysis Technology
B.Sc.	Optometry
B.Sc.	OT & Anaesthesia Technology
B.Sc.	Imaging Technology
B.Sc.	Respiratory Care Technology
B.Sc.	Forensic Science
B.Sc.	Digital Film Making & VFX
B.Sc.	Animation & VFX
B.Sc.	Interior Design
B.Sc.	Fashion Technology
B.Sc.	Hotel Management
BHMCT	HM & Catering Technology
BCA	Software Development
BCA	Cloud Tech. & Info. Security
BCA	Info. Security & Mobile Apps.
BCA	Network & Server Admin.
BBA	(Honors)
BBA	Aviation Management
BBA	Aviation & Airport Mgmt.
BBA	Port Management
BBA	Logistics & Supply Chain Mgmt.
BBA	International Business
BBA	Financial Services
BBA	Journalism & Mass Comm.
BHA	Hospital Administration
B.Com	(Honors)
B.Com	Int. Accounting with ACCA
B.A.	Journalism & Mass Comm.
B.Ed.	Education

POSTGRADUATE

M.Des.	UX (User Experience)
M.Tech.	Structural Engineering
M.Tech.	Nanotechnology
M.Tech.	Computer Science
M.Tech.	Research Based (All Branches)
M.S.	Research Based (All Branches)
M.Sc	MLT Clinical Biochemistry
M.Sc	MLT Haem. & Blood Transfusion
M.Sc	MLT Microbiology & Immunology
M.Sc	Echocardiography
M.Sc	Cardiac Catheterisation & Interv.
M.Sc	Respiratory Care Technology
M.Sc	Medical Imaging Technology
M.Sc	Anesthesia and OT Technology
M.Sc	Psychology & Councelling
MPT	Physiotherapy
MBA	Dual Specialization
	Finance & Marketing
	Marketing & HRM
	Finance & HRM
MBA	Super Speciality
	Aviation Management
	Port Management
	Business Analytics
	Logistics & SCM
	Hotel Management & Tourism
	Hospital & Health Care Management
M.Com.	Finance & Banking
M.Com.	Auditing & Taxation
M.Com.	With Integrated ACCA
MCA	Lateral Entry & Dual Specialization
	DS & Cloud Computing
MSW	Master of Social Work
	Dual Specialization

RESEARCH

M.Phil. | Ph.D. | D.Sc. | D.Litt.
Science, Commerce, Economics,
Management, Social Sciences, Humanities,
Engineering & Technology, Education,
Inter-Disciplinary, Health Sciences

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