22nd World Conference on Applied Science, Engineering and Technology

(WCASET – 19)

Singapore

26th - 27th September' 19

Organized by

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Preface

We cordially invite you to attend the ***22nd World Conference on Applied Science, Engineering and Technology (22nd WCASET-19)*** which will be held at ***Holiday Inn Singapore Atrium, Singapore*** on ***September 26th - 27th, 2019***. The main objective of ***WCASET*** is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in relevant fields of Science, Engineering, Management, Education and Technology. This conference will provide opportunities for the delegates to exchange new ideas and experience face to face, to establish business or research relationship and to find global partners for future collaboration.

These proceedings collect the up-to-date, comprehensive and worldwide state-of-art knowledge on cutting edge development of academia as well as industries. All accepted papers were subjected to strict peer-reviewing by a panel of expert referees. The papers have been selected for these proceedings because of their quality and the relevance to the conference. We hope these proceedings will not only provide the readers a broad overview of the latest research results but also will provide the readers a valuable summary and reference in these fields.

The conference is supported by many universities, research institutes and colleges. Many professors played an important role in the successful holding of the conference, so we would like to take this opportunity to express our sincere gratitude and highest respects to them. They have worked very hard in reviewing papers and making valuable suggestions for the authors to improve their work. We also would like to express our gratitude to the external reviewers, for providing extra help in the review process, and to the authors for contributing their research result to the conference.

Since July 2019, the Organizing Committees have received more than 152 manuscript papers, and the papers cover all the aspects in Electronics, Computer Science, Information Technology, Science Engineering, Management, Education and Technology. Finally, after review, about 70 papers were included to the proceedings of ***22th WCASET - 2019***.

We would like to extend our appreciation to all participants in the conference for their great contribution to the success of ***22th WCASET-19***. We would like to thank the keynote and individual speakers and all participating authors for their hard work and time. We also sincerely appreciate the work by the technical program committee and all reviewers, whose contributions made this conference possible. We would like to extend our thanks to all the referees for their constructive comments on all papers; especially, we would like to thank to organizing committee for their hard work.

Rudra Bhanu Satpathy
CEO
Institute for Engineering Research and Publication (IFERP)

Acknowledgement

IFERP is hosting the ***22th World Conference on Applied Science, Engineering and Technology*** this year in month of September. The main objective of 22th WCASET is to grant the amazing opportunity to learn about groundbreaking developments in modern industry, talk through difficult workplace scenarios with peers who experience the same pain points, and experience enormous growth and development as a professional. There will be no shortage of continuous networking opportunities and informational sessions. The sessions serve as an excellent opportunity to soak up information from widely respected experts. Connecting with fellow professionals and sharing the success stories of your firm is an excellent way to build relations and become known as a thought leader.

I express my hearty gratitude to all my Colleagues, staffs, Professors, reviewers and members of organizing committee for their hearty and dedicated support to make this conference successful. I am also thankful to all our delegates for their pain staking effort to travel such a long distance to attain this conference.

A. Siddth Kumar Chhajer
Director
Institute for Engineering Research and Publication (IFERP)

KEYNOTE SPEAKER

22nd World Conference on Applied Science Engineering and Technology – 2019

Message from Keynote

On behalf of the WCASET organizing committee, I am honored and delighted to welcome you to the 22nd World Conference on Applied Science, Engineering and Technology in Singapore. I am highly optimistic that we will be having an exciting program in the conference that will allow members to extend our network, share expertise and jointly explore current and future research directions in Applied Science, Engineering and Technology.

The event has been designed to provide an innovative and comprehensive overview of the latest research developments that would serve as a catalyst by connecting scientists within and across disciplines in the world. Let's continue to work together in generating new ideas and accelerating new applications in improving our community.

Once again, I thank you all and congratulations in advance, and wish you all an enjoyable and successful conference. Looking forward to see again in the upcoming WCASET conference.

Dr. Philip P. Ermita, **PIE, ASEAN Eng**

Dean, College of Engineering

University of Pepretual Help System DALTA

Calamba City, Laguna, Philippines

22nd World Conference on Applied Science Engineering and Technology – 2019

Message from Keynote

It is my great pleasure and honor to welcome all the guest, research presenters and participants to the "22nd World Conference on Applied Science Engineering and Technology".

My warmest and heartfelt congratulations to the Institute for Engineering Research and Publication (IFERP) as you bring together the members of the academe, innovators, researchers, academicians, scientists, students and global experts to share the latest knowledge in the field of business management, education, science, technology, and engineering.

This year theme "Trending Researches in Applied Science and Technology" will provide them the venue to exchange research findings, to interact with fellow knowledge workers for a greater collaboration and to explore ways to bridge the gap towards competitiveness that will lead to effective solutions relevant in building more sustainable future and for the improved of Humanity.

On behalf of the Office of the Vice President for Research, Extension, and Development, Polytechnic University of the Philippines, I would like to express my deepest appreciation to the commitment of the Organizing Committees in making WCASET 2019 a success.

Congratulations. Maraming Salamat at Mabuhay!

Jackie D. Urrutia

Director, Research Management Office

Polytechnic University of the Philippines

Organizing Committee

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WCASET - 19

22nd World Conference on Applied Science, Engineering and Technology

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ABSTRACTS

Organized by

Institute For Engineering Research and Publication (IFERP)

Development of Automated Camera Platform for Optimization of Machine Vision with IoT

Alvin Yap Chee Wei, School of Engineering, Asia Pacific University, Kuala Lumpur, Malaysia
Alex Haw Wai Kit, School of Engineering, Asia Pacific University, Kuala Lumpur, Malaysia
Gabriel Yosua Rantung, School of Engineering, Asia Pacific University, Kuala Lumpur, Malaysia

Abstract:--

Most industrial cameras lack the ability to perform auto-focus function and this pose a problem to picture analytics. As a result, pictures taken are unclear, and this pose a problem for analytics. This paper describes the process of developing an automated camera platform based on two axis movement. The design of the platform has been produced with a 3D model, and the model was further developed into working system. The system is controlled by using a Delta programmable logic controller (PLC) and programmed with WPLSoft using ladder logic. Two linear actuators were used to move the camera from one position to another position and the lighting system was also designed to improve the lighting environment for the camera. The system was tested for accuracy and repeatability on the position and the speed of the linear actuator. The result shows that the system is applicable and reliable. IoT has been an added advantage to the system for better control. The implementation of automated camera platform is therefore realistic with over 95% accuracy in terms of position and rotation.

Keywords:--

automated camera platform, programmable logic controller (PLC), linear actuator, Internet of Things (IoT)

Performance and Emission Analyses of Acetylene Dual Fuel Engine

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Abstract:--

Fossil fuels are exhausting day by day at a very faster rate due to excessive demand for energy. Diesel engines are important prime movers used in different industries. When liquid petroleum fuels are burnt in diesel engines they emit harmful exhaust emissions which pollute the environment and may cause severe chronic diseases. Hence to mitigate over-dependency of crude oil and to protect the environment from harmful emissions, different engine experts and scientists have proposed dual fuel combustion technology to utilize low emissions renewable gaseous fuels without compromising its performance. Most of the work in the literature concentrate on utilizing gaseous fuels such as CNG, LPG, biogas, and hydrogen whereas very little quantum of work has been done to utilize acetylene in the IC engine. The higher flame velocity, high auto-ignition temperature, and high calorific value are the important combustion properties of acetylene which makes it more advantageous in CI engine than the available feedstock. The acetylene can be easily produced from calcium carbonate and water. Hence, the author has considered acetylene as a primary fuel in the present study and diesel as a pilot fuel in the modified CI engine. In this experimental investigation, the author has optimized the flow rate of acetylene by analyzing the performance and emission characteristics of the acetylene fuelled diesel engine at different loads and finally, the obtained results were compared with the neat diesel. The acetylene was inducted at a different gas flow rate of 2 LPM, 3 LPM, and 5 LPM. The results show that when acetylene induction takes place at 2 LPM, the brake thermal efficiency (BTE) increases by 1.4 % at full load during dual fuel mode compared to neat diesel. Brake specific energy consumption (BSEC) increases during acetylene induction whereas carbon monoxide, hydrocarbon, and smoke decrease particularly at medium to high engine loads this may be due to homogenous charge mixture formation, leading to stable combustion. However, there is a slight increase in oxides of nitrogen emissions, which may be due to higher flame speed causing uncontrolled combustion at peak loads relative to baseline diesel.

Keywords:--

Acetylene; Dual Fuel, Performance; BTE; CI Engine; Gaseous Fuel and Emission

Relative Analysis for different Classifiers of Intention Decoding in EMG Signals

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Abstract:--

Prosthesis implants had been adored around the globe for amputee. The further advanced hand prostheses using electromyography signals getting common. The immense importance assisting biomedical domain the robotic applications are immersing. Command to our muscles generated by our mind are equivalent to EMG signals in electrical terms, therefore configuration of these signals reckon in the muscle activities. The aim of this study is synthesis of EMG signals produced during hand movement and analysis of the data by adopting different methods. To get the best results these signals are needed to be preprocessed to reduce the noise and unwanted signals inferred while recording data, as data can be collected by installing electrodes on patient's hand. NinaPro shared the data of previous the researchers of various streams on numerous hand movements, which simplifies the prosthesis implants to accomplish better movements. Intention of this thesis is to dive deep into the analysis of this available data set for its different classes, strategy to be followed is the processing of the EMG signals and then formation of window segmentation facilitating for smooth management of data for further steps. Moreover, to extract features which is the task to be achieved in a way to get a control on the hand prosthesis in frequency domain. Furthermore, the classifiers Linear Discriminant Analysis (LDA), Support Vector Machine (SVM), K-Nearest Neighbor (KNN) and Artificial Neural Network (ANN) applied on the extracted features and highest of 85.31% accuracy achieved with conventional classifier KNN. However ANN from deep learning gave far better results than the machine learning techniques with the accuracy of 92.5%.

The Mediating Effects of Knowledge Acquisition on Customer Environmental Collaboration Practices towards Sustainability Performance on Fish Cold Chain Distributors in Indonesia

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Abstract:--

Customer Environmental Collaboration become a part of option. Therefore, fish cold chain distributors need to shift green paradigm experience to make their supply chain more efficient towards their sustainability and environmental commitments through in order to ensure all supply chain and sustainable performance. Indonesia as one of the country's foreign exchange contributor, especially from utilizing marine resources. Problems of sustainability performance associated with the selection of the indicators relation to lack of customer environmental collaboration at the core SC processes that become green supply chain issues in achieving targets sustainability development goals 2030 (SDG-2030). Design part of GSCMP can be prompt differential strategies with respect to sustainability but there something missing to link their sustainability performance. In this research study are fish cold chain distributors in Indonesia that have register to feasibility of fish processing from Southeast Asia Fisheries Development Centre (SEAFDEC) ® and EMS certified. SEM-AMOS is choosing as statistical methodology and tools that uses a confirmatory approach to data analysis. The result of this research provides that Knowledge Acquisition has significant effect customer environmental collaboration (partial mediator) practices to increasing sustainability performance only. Recommendations for future research are based on gaps of scope of area research still lacking to build perfect fit model, need more distribute in ASEAN scope and deepening the scope all of Indonesia Fish Cold Chain Distributor which have not registered in SEAFDEC®.

Keywords

Customer Environmental Collaboration, Knowledge Acquisition, Sustainability Performance, Fish Cold Chain

Technological Advocacy of Migrant Workers in the Pre Placement Based On Personal Legal Assistance

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Bambang Sugeng Ariadi Subagyono, Airlangga University
Agus Yudha Hernoko, Airlangga University
Zahri Vandawati Chumaida, Airlangga University
Yayuk Sugiarti, University Wiraraja

Abstract:--

Equal rights and opportunities without discrimination to obtain decent jobs and livelihoods are often underestimated by some countries. The placement of Indonesian migrant workers abroad must receive serious attention. The impact can result in the loss of property to private migrant workers and their families until the loss of life. Legal safeguards are needed in the form of prevention of legal violations through advocacy for assisting Indonesian migrant workers during pre placement on the personal legal based . Due to this fact, our research focuses on how the design of personal legal advocacy can fulfill the right to work and livelihoods that are appropriate for humanity for Indonesian migrant workers. This research used normative juridical with a socio-legal approach in Indonesia. The findings showed that advocacy based on personal legal assistance can be a positive element so that the right to work and a decent living for humanity for Indonesian migrant workers can be fulfilled

Index Terms

Indonesian migrant workers, the right to work, personal legal assistance.

Critical Analysis on Legal Aid Regulation for Marginal Community Based on Legal Language

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Sri Winarsi, Faculty of Law, Airlangga University, Indonesia.

Abstract:--

Business will grow rapidly if the atmosphere of legal relationship is conducive. A conducive legal relationship means no conflict. These conflicts are determined by the certainty of the rule of law. A good rule of law is a rule that has legal certainty and justice, formulated in proper legal language and not multi interpretation. Misformulation of legal language can be a source of lack of legal protection. The aim of the study is whether there is a misformulation of legal language in the definition of legal aid which consists of legal services, free of charge, legal aid providers and legal aid recipients in Law 16/2011 from the point of language implementation of legal protection. This research is sociolinguistic by using descriptive analysis method toward regulation. The results of the research indicate that there is a misformulation in the legal language, only for the poor community, not the marginal community.

Keywords:

legal aid, misformulation, legal language, legal assistance.

Antecedents and Consequences of Management Accounting Systems: Empirical Evidence from SOE's in Indonesia

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Abstract:--

Decision making is crucial for every company. Errors in decision making are usually caused by the lack of quality accounting information held by information users. Users will expect the information can meet all their needs. Quality accounting information is produced from quality Management Accounting Systems (MAS). One of the CSF's of a MAS implementation is Top Management Support (TMS). Ineffective support from top management will make MAS not function as expected. This research aimed to empirically verify the effect of TMS on the MAS effectiveness and its implications for information user satisfaction. The study was conducted on 8 SOE's located in Indonesia and using a questionnaire as an instrument for data collection. The number of questionnaires collected was 44 from the accounting and finance staff. Data processing results showed that TMS affects the effectiveness of MAS and has implications for user satisfaction. Much research has been done on MAS, but MAS research that links with system user satisfaction is still rare but needed especially related to information satisfaction. Users who are satisfied with the use of information can indicate the effectiveness of the information system. Overall, this research contributed to the growing literature on the function of MAS in the organization.

Index Terms

User satisfaction, Management Accounting Systems, Top Management Support

Non-invasive Diabetes Detection using Facial Texture Features Captured in a Less Restrictive Environment

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Abstract:--

The prevalence of Diabetes Mellitus (DM) worldwide has risen dramatically with 1 of 3 deaths happening in Western Pacific region according to the 2017 report of International Diabetes Federation. The Philippines ranks 5th in WP with the most cases of diabetes. Local experts and IDF estimate that half of the people with diabetes are unaware they have it and will likely remain undiagnosed. Conventional ways to detect if a person has diabetes are often invasive and painful such as puncturing fingers for blood sample. Though non-invasive DM detection techniques have gained consideration in more analysts, presently they have restrictive setup for image capture. This paper explores the performance of using mobile device as convenient tool for image capture of DM and healthy dataset for non-invasive detection using facial block texture features and Gabor filter. Filipino participants that undergo regular check-ups for diabetes monitoring are chosen within the age inclusion criteria of 20 to 79 years old in which surveys for Philippines assessed the occurrence of diabetes to be most prevalent according to IDF and World Health reports. For each subject, a mobile device 12mp and 7mp cameras, and laptop camera are used to take the photo placed 30 cm in front of the face under normal lighting condition to ensure full coverage and avoid unnecessary background. A ratio of 70:30 training to testing set is maintained and extracted facial blocks are classified using SVM and KNN. A total of 100 images from each camera are captured, preprocessed, filtered and iterated to compare performance of data. Performance of the system are measured in terms of Accuracy, Specificity and Sensitivity.

Key words:

Diabetes Mellitus, Gabor Filter, Texture Features.

Implementation of Quality Accounting Information Systems and Intensity of the Use of Gojek and Grab Online Transportation for Consumers in Indonesia

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Sondang Mariani Rajagukguk, Accounting Department, Faculty of Economic, Maranatha Christian University

Abstract:--

Security on Gojek systems is very vulnerable to hacking. Gojek system has six weaknesses consisting of: Anyone can search for consumer identity based on name, telephone number and e-mail. Anyone who can change the income of a driver (can be fixed). Anyone who can install customer identity, edit customer data without a password. Anyone who can get the data of a driver, and anyone who can see the user's reservation, the system is not in accordance with an insecure security system that is not in accordance with expectations. Problems with e-commerce performance expectations in terms of payment methods that are still in bank transfers and distribution logistics that have not yet provided maximum benefits raised by Mekominfo Rudiantara (2015). In addition to payment method problems that still rely on bank transfers, e-commerce providers are also confronted by logistics distribution competition. This number is more than 250 million spread across 17,000 islands. Here are some things that should be included in the Indonesian e-Commerce road map. Based on the description above, the researcher is interested in conducting a research entitled Implementation of Quality Accounting Information Systems and Intensity of the Use of Gojek and Grab Online Transportation Consumers in Indonesia.

The specific objective of this research is to solve national strategic problems in accordance with the spending intensity of the use of online transportation applications, consumers need to get good accounting information in obtaining results through accounting information systems provided by Gojek and Grab online services that support information on financial transactions in each region in big city. This study uses quantitative, the study sample consisted of gojek users. Quantitative data analysis is calculated statistically, then concluded and discussed based on the results of statistical analysis. And the method used is descriptive method and explanatory research. Research is conducted to obtain a description, complete analysis, factual, traits and relationships between variables discussed by using structural equation modeling (SEM-covariance based) in order to answer the problem formulation and answering hypotheses and supported by descriptive analysis for operational advice. Mandatory output that is sponsored is the copyright for the research model and the feasibility of the documents that make up the online application model which increases the trust and intensity of use by consumers. And additional publications for international journals. The proposed TKT research is the development of an online transportation application in TKT 6 supported by consulting system developers.

Key words:

Accounting information system, intensity of use online transportation

E'ntries all the way Using Online Reflective Journal Writing as Innovative Tool to Enhance Student Understanding and Performance in Ethics Courses for Information Age

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Venugopal, Swathi, Faculty of Business University of Wollongong in Dubai , Dubai, UAE

Abstract:--

This paper looks into the possible use of reflective journal writing assessments for teaching ethics for information age course to students from business and computing backgrounds in order to increase deeper learning and enhance subject performance. Although reflective journal writing has not been used previously as a learning tool to teach ethics, this paper compares the results from a sample population of more than 300 students across four semesters to a comparison group from previous semesters taught by the same instructor. Results highlight significant impact of using reflective journal writing on students' understanding of ethics concepts through recorded increase in grades and reduction in fail rates.

Index Terms

Reflective writing, journal writing, teaching ethics, e-ethics, enhancing performance

Safety Management Plans and Practices of Higher Education Institutions: A Case in the Philippines

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Dr. Noel Florencondia, Dean ,College of engineering Nueva Ecija University of Science and Technology ,Philippines

Abstract:--

Higher Education Institutions (HEI's) are often regarded as sanctuaries, protected environments where young people explore great ideas in a collegial atmosphere and make lifelong friendships and learnings. The change in mind-set necessary to achieve the mission-vision of any academic institution is a sustained, long-term effort to transform education at all levels. The higher education institution in the Region IVA is composed of two type; the private and public institution. Majority of higher education in Region IVA are private proprietary educational institutions operating from 11-20 years of service with 11-20 academic programs with below 200 employees and students' population ranging from 1,000 - 8,000. Safety Management Plans are currently used by higher education institution in Region IVA. Among the 18 identified safety management plans, safety training for employees and students are most frequently used. The safety management practices identified and applicable to higher education institution were academic laboratory activities, physical plant, disaster preparedness, and environmental hazards. Based on the findings, all areas where classified with a verbal description of good. This means that higher education instiutions in Region IVA are 60-80 percent compliant to safety standards.

This research also reveals that using T-Test that there are significant differences between private and public higher education institutions Region IVA in the their current safety management practices in terms of academic laboratory activities, physical plant and disaster preparedness, and environmental hazards. Moreover, among the identified profile of higher education institution, using spearman's rank-order correlation, the type of institution, number of programs, and number employees are the identified variables with significant relationship with the safety management practices. The proposed academic safety standards will address and bridge the gap of higher education institution in aligning the requirements and support the continuous development in sustaining a safety environment in achieving the mission-vision of higher education institution towards quality education.

Dr. Herb: A Mobile Game Application

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Nina Ciela C. Florentino, College of Business and Technology, Manila Central University, Caloocan City, Philippines
Denzel Lewis Madrideo, College of Business and Technology, Manila Central University, Caloocan City, Philippines
Karl Santos, College of Business and Technology, Manila Central University, Caloocan City, Philippines

Abstract:--

Dr. Herb: A Mobile Game Application is a game project designed for the game users who have a lack of knowledge and information about the effects of herbal medicine on our body.

The system is designed to help the game users to have knowledge and information about the ten (10) herbal medicines in the country, Philippines. During the game, every captured medicine will have its information or a brief description. Each mission has its own goal to finish before heading to the next mission. A challenge of time is included, the obstacle course is around the environment and lastly, a player can get additional health to his character.

The Administrator has the capacity to control all the components in the system such as editing the game, adding and removing features and to check the game system application. The researchers used a spiral model as it matches the processes of the game. There are two (2) users in the system: the administrator of the game and the game users. The users needed to use a Bluetooth connection to get the Android Package Kit (APK) and install it to their cellphone devices to play the game.

The researchers conducted an evaluation that aims to test the developed game. There were thirty (30) Users, five (5) Medical Practitioners and five (5) IT experts to test the developed game. The result of the evaluation was marked as Excellent and Very Good in terms of functionality, reliability, usability, efficiency, maintainability, and portability.

U-Net Based Lung Image Segmentation for Lung Disease Detection

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Alvin R. Malicdem, Dean, CIT, Don Mariano Marcos Memorial State University.

Abstract:--

Lung diseases are becoming a worldwide health problem. World Health Organization estimates that by 2030, lung diseases such as Chronic Obstructive Pulmonary Disease will be one of the leading cause of mortality. Accurate and timely detection of lung diseases may prevent further death. It is therefore vital that its early detection will lead to treatment and prevention of mortality among patients. However, the scarcity of expert or well-trained radiologists reading CXR images might delay the timely diagnosis of lung diseases especially in rural areas where the scarcity is felt. In order to aid radiologist in reading CXR images, a computer aided tool is proposed for faster and more accurate reading of CXR images. To prepare the image for processing, it need to be segmented to make it easier for the computer to understand. The goal of image segmentation in medical field is to extract the region of interest in the organ. This study is focused on developing a model that will segment the lung from CXR images. Using U-Net architecture based semantic segmentation, the researchers were able to develop and train a model using a set of 562 CXR images and lung mask images, 70 percent of the images were used for training and 30 percent for testing. The developed model achieved a final training accuracy of 97.55 percent and validation accuracy of 97.37 percent. Validation loss and training loss are also low which indicates that the model can segment lung from CXR images with minimal error. The developed model can then be used in classifying lung diseases by focusing on the segmented image rather than focusing on the entire CXR image.

Index Terms: –

Convolutional Neural Network, Deep Learning, Image Segmentation, Lung Disease.

K-12 Students' Academic Status: A Data Warehouse Architecture Framework

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Thelma D. Palaoag, University of the Cordilleras, Baguio City, Philippines.
Josephine Dela Cruz, University of the Cordilleras, Baguio City, Philippines.

Abstract:--

The K-12 Basic Education Program in the Philippine is now on its full swing status. However, as it moves to the peak of its full implementation, the number of drop-outs, retention, and migration of students is increasing. With this in mind, the researcher came across with designing data warehouse and data mining architecture in the analysis of drop-out, retention, and migration patterns of students. Academic performance is the main factor in the students' drop-out, retention, and migration. The proposed architecture would be sufficient for the analysis of the K-12 students' academic status. It served as a foundation in the conduct of a thorough study on students' drop-out, retention, and migration patterns.

Keywords:--

K-12, data warehouse architecture, academic status

Design Architecture of a Student Co-curricular Activity Management Platform

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Abstract:--

This paper introduces a design architecture of a co-curricular activity management platform for students. Because of the absence of features in existing learning management platforms to manage co-curricular activities that educational institutions have to offer, these learning management platforms are not fitted to be utilized. One of the essential circumstances for raising qualified and prepared students in this day and age is to guarantee their interest and participation in social activities. In the education aspect, social activities are co-curricular activities earlier known as extracurricular activities, which are components of non-academic curriculum that helps to create different facets of character improvement of students.

Quantitative research particularly descriptive research using survey questionnaires and guided interviews, Intensive literature review on published studies and articles, and latest information technology reviews were conducted to come up with an appropriate design architecture to improve student's engagement in co-curricular activities.

Integrating the ideas and insights gathered on the conducted study, a new design architecture for a co-curricular activity management platform was proposed. In order to evolve architecture continually, the new design provided greater flexibility for development teams that decreases development cycle times by allowing them to update modules of the platform independently without affecting the other parts, and also the design responded to the needs of the users, and integrated emerging ICT trends. The tailor fitted design architecture of the platform addressed the specific needs of its end-users, thus providing students more convenient experience and opportunities to engage in co-curricular activities provided by higher educational institutions.

Keywords:

co-curricular activities, design architecture, learning management platforms, student engagement

An Assessment of the Mobile Games Utilization and its Effect to one's Computational Thinking Skills

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Thelma D. Palaoag, College of Information Technology and Computer Science, University of the Cordilleras, Baguio City, Philippines.
Josephine Dela Cruz, College of Information Technology and Computer Science, University of the Cordilleras, Baguio City, Philippines.

Abstract:--

Transformation of knowledge can be obtained anytime but where and how you learn make all the difference. The increased number of different online games attract young people that can turn to addiction or cause dropout or sometimes makes them inspired. On the other hand, computational thinking skills are vital skills for the students in order to reduce the skills gap between education and the workplace. Computational thinking skills shall help the students become problem solver and innovator, when students have the capacity to determine what to extract from a system or problem in order to create a solution they are forced to think differently about the most important elements of what they are working with and remove irrelevant factors. The main purpose of this study is to assess the computational thinking among students on the mobile games utilization. The researcher employed quantitative data analysis and documentary analysis was used to measure the effect of mobile games utilization using Scholastic Abilities Test for Adults(SATA). The result of the study have average effect to enhance computational thinking. It also reveals that mobile games utilization such as collaboration actions provide incentives to engage with learning.

Keywords:

computational thinking skills, mobile games, mobile games utilization

Bayesian network-based process downtime Cost determination of an industrial plant

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Abstract:--

Industrial plants utilize sensitive equipment to produce their products and meet their financial targets. Equipment downtime caused by power quality issues such as voltage sag affects production and entails cost hence poses a threat to their ability to deliver their financial objectives. This research aims to determine the response of industrial equipment to sag events and quantify the downtime cost caused by interruption in the production process. The study used the voltage tolerance curve to determine the individual equipment response to sag events and the Bayesian Network to establish the network structure of the production process. The probability of process interruption and the associated downtime losses was computed using a mathematical software. The research shows a strong relationship between the equipment's response to voltage sag events and the production downtime cost and highlights the importance of the immunity of equipment to voltage sags.

Keyword:--

Industrial Process, Sensitive Equipment, Voltage Sag, Voltage Tolerance Curve, Bayesian Network

Impact Assessment of Classroom-Based Artificial Intelligence in Bulacan Agricultural State College

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Ma. Melanie A. Cruz, Institute of Engineering and Applied Technology Bulacan Agricultural State College Bulacan, Philippines

Abstract:--

Presently, Artificial Intelligence (AI) has been applied in the education sector, and universities come to adopt the technology because of its effects of this advancement in today's classroom settings. This paper aims to assess the usability of the artificial intelligence technology in managing the computer laboratory classroom, to address the main problem which is the overpopulated number of students in every laboratory class. The researcher conducted a systematic review on the performance of the system in terms of its procedure in manipulating the different application installed in each computer laboratory. This includes the current management in the different facilities and software installed such as Microsoft applications in every workstation. The performance of the system features such as: the procedures of the speech recognition technology in receiving and executing commands from the user and its notification features has been observed. The study would like to seek for more possible solution in managing the classroom setup. The study will help the institution to improve its services to its clientele to be more globally competitive.

Optimization of Hydraulic Pressures in Kabacan Water District Pipe Network Using H-Newton-Raphson Technique

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J.N.Orejudos, Mindanao State University – Iligan Institute of Technology, Iligan City, Philippines

Abstract:--

The purpose of this study is to optimize the hydraulic pressures of a real-world water distribution network to protect the system with sustained adequate water supply. This novel approach is different from other published works in the sense that this study is intended to improve the water system of the Kabacan Water District (KWD) in Cotabato, Philippines. Yet, there are no previous scholarly efforts done with the KWD water system; thus, this study. The method used here is a modification of the methods used by references [4] and [14]. This optimization approach includes determination of control valve placement in the network to control the hydraulic pressures within the system. The proposed numerical model, with the EPANET Toolkit interface, resulted in a simpler and more accurate algorithm, which converges easily in all the 48 network models used in this study where the convergence is achieved from 9 to 74 iterations. This is an efficient and easy-to-use optimization solver for analyzing looped pipe networks even in large scale networks.

Key Words:

Water Distribution System, Pressure Optimization, Control Valves, h-Newton Raphson, Looped Pipe Network

GREENTECH: An Innovative IT Solution for Waste Management

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Thelma D. Palaoag, College of Information Technology and Computer Science, University of the Cordilleras, Baguio City, Philippines.

Abstract:--

Nowadays, mobile application development offers an innovative field for modernization. However, we cannot deny that we are facing the greatest environmental challenge, wastes management. Opportunities in enhancing the community's waste management practices have become easier with the progress of mobile application development. This paper aims to support every individual in strengthening their waste management practices within the community. The study focuses on designing a mobile application as an innovative IT solution in helping the community in improving its waste management. The researcher used a co-design methodology to define the content features, system requirements and to identify the user of the system. This framework and design consideration are recommended for utilization and implementation, to aid every member of the community in their waste management practices through an innovative solution. The result of the study helps individuals appreciate the importance of emerging technology in the solution to climate change. This shows that IT innovation is a great opportunity in improving the waste management habits of every individual. Somehow, this study helps individuals to recognize the importance of mobile technology as a solution to global concerns associated with climate change.

Keywords :—

Climate Change, Community, Mobile Technology, Waste Management

Dynamic Stereo Photogrammetry and Video Streaming for Traffic Congestion Modeling

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Abstract:--

This study aims to use Dynamic Photogrammetry and Video Streaming for the Traffic Congestion modelling. Traffic count has been carried out at some road intersections in Amman the Capital of Jordan using dynamic stereo photogrammetry and video streaming. Artificial Neural Network (ANN) is the used to develop the traffic congestion model. Congestion parameters have been predicted from images processing. Correlation between the different congestion parameters were predicted by using Matlab software. Models for Delay, Queue length and Lane change have been predicted with high precision.

Effect of Corporate Social Responsibility and Good Corporate Governance Mechanism (Managerial Ownership, Institutional Ownership, Independent Board of Commissioners, Audit Committee) To the Value of the Company

(Empirical Study on Banking Companies Listed on the Indonesia Stock Exchange in 2012-2015)

Mathius Tandiontong, Accounting, Maranatha Christian University
David Christian, Accounting, Maranatha Christian University

Abstract:--

This study aims to obtain empirical evidence whether corporate social responsibility and good corporate governance significant effect on the value of the company on the companies listed on the Indonesia Stock Exchange. The population in this study was banking companies listed in Indonesia Stock Exchange (BEI) in 2012 and 2015. The sampling method used in this research is purposive sampling method. The data obtained through the company's annual report published for the years 2012-2015 general obtained from the official website of each company. the independent variable is the corporate social responsibility and good corporate governance, while the dependent variable in this study is the value of the company. Multiple regression analysis is used to obtain the regression coefficients that will determine whether the hypothesis made will be accepted or rejected. Regression models are used to test the effect of the independent variable on the dependent variable.From the data processing, a significant difference between CSR disclosure, managerial ownership, institutional ownership, proportion of independent board of commissioners, and the number of audit committee of the company values at banking companies listed on the JSE. Obtained coefficient of determination of 30.4% of the value of the company at banking companies listed on the JSE was influenced by CSR disclosure, managerial ownership, institutional ownership, proportion of independent board of commissioners, and the number of audit committee.

Keywords:

Corporate social responsibility, good corporate governance, the value of the company, banks

Smart Parking Guidance System on IoT

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Abstract:--

Nowadays, smart parking guidance system is a crucial research for people's convenience where the integrating concept of IoT that include hardware and software with the connection of internet for image or video processing technology is a powerful application which made up a complete smart parking system. The main objective of this research is to develop and analyze on a smart parking guidance system where current available system was compared to this new proposed system. Limited parking space has become serious issue since the number of Malaysia's populations are using car keep increasing. Some of the big companies, shopping malls and other public facilities already deployed a smart parking system on their building. However, there are still a lot of buildings that do not own it because the system required a lot of investment, where the huge parking areas need higher cost to install sensors on each parking lot available and cameras are costly and lower in reliability. The proposed smart parking guidance system in this research was depending on a 360° camera that was modified on Raspberry Pi camera module and 360o lens that process with De-Warping techniques for the normal view rather than 360-degree view and Haar-Cascade classifier. The image and video processing was done by Open CV and python program to detect the available parking space and cloud firebase was used to update data where users can access the parking space availability by android mobile phone specifically at a closed parking space. A single 360°camera was replaced several sensors and cameras which were implemented on traditional parking guidance system. In the end of the paper, it is proved that prototype based smart parking is the convenient way to find the parking space availability.

Keywords

Internet of Things; Cloud Computing;Smart Parking; Android app.

Identifying Engineering Leadership Attributes For IR 4.0 Graduates

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Abstract:--

As new industrial revolution strike in, engineers are required to prepare themselves with relevant skills in order to remain significant in a challenging working environment. Leadership skills have been highlighted as important skills to be perceived by engineers in various engineering reports. While there is a dire need for instilling engineering leadership in the curriculum, limited studies have been done to identify the leadership attributes for engineering graduates. Therefore, this study was done to derive engineering leadership traits/attributes based from engineering leadership programs (ELPs) worldwide. Using a systematic review approach, a crosswalk of engineering leadership criteria from selected five ELPs were shown. Emerging themes from the crosswalk are technical skills; think outside of the box; engage with others; excellence in execution and beliefs and attitudes. Findings of the study will provide a significant set of leadership attributes for IR 4.0 engineering graduates and also will embark the opportunities for further research by the authors.

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Automated Motivational Agent Framework for a Greener Lifestyle Behavior Change

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Abstract:--

Every person is aware of ecological issues. Hence, consciously, ecological issues are already objects of the mind. What is lacking is the behavioral preference for activities and practices that would lead to an ecologically-sustainable behavior. Hence, intervention may be needed to stir things up with a drop of behavioral insights – to really turn the tide. This study aims to develop a framework that can be used in designing chatbots as a tool and a space for discussion for the diffusion and generation of practical ideas and knowledge for a greener lifestyle behavior change. We utilized a theory-based behavior change agent framework and motivation techniques to guide our structured intervention. To validate the technical feasibility of the framework's design principles, theoretical underpinnings, and procedures, a functionality review of chatbot development platforms was conducted. The features provided by Artificial Intelligence Markup Language (AIML) language proved that it is possible to develop a chatbot as a tool to bring about behavioral change. We contribute a valuable framework that can be adopted in the design of conversational agents equipped and trained with behavioral science perspectives to help effectively address the challenges presented by climate change and declining natural resource availability.

Keywords:

AIML, behavior change, chatbot, climate change, environmental issues, greener lifestyle, motivational interviewing, trans-theoretical model.

An Architectural Model on Employment Opportunities as Aftercare Program

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Abstract:--

The aftercare program of a drug rehabilitation center is a continuing treatment receives by ex-drug abusers immediately after being discharged from a residential rehabilitation center. This program caters services that help in the development of skills of ex-drug abusers as they move out from the facility of the rehabilitation center for them earn for living. The rehabilitation centers offer opportunities for employment as they allow other agencies to offer job and training and seminar services for ex-drug abusers. In the implementation of the job opportunities as an aftercare program, the selection of ex-drug abuser who is ready to work, ready to be trained, and ready for a further referral is a crucial decision. To this end, an architectural model that can match ex-drug users profile and relevant jobs, training, and referrals were needed. The developed architecture will serve as their basis for a decision support system development.

Keywords

architectural model; employment opportunities; ex-drug abusers

Drones for medical purpose

Nishant, Student, GGSIPU, Delhi

Abstract:--

Many types of drones have been developed.

If we take the case 1 and consider the parameters described in the problem statement, we thought to develop a drone for the medical facilities.In the 21sr century medical is playing the major role in everyone's life, especially delivery of medicines in room to room service.

Here is the idea describing the role of drones.

We will develop a DC power drone by these parameters which will be flexible to locations. In this type of drone it will go room to room with all the medicine facility saving the mankind power.This drone will be feasible in the hospital for delivery of the medicines and the reports of the patients from the describe location to prescribed location. It will be having the camera and a remote to use it in a favorable manner. It will be very useful for the govt as well as the private agencies.

Keywords:

Drones, AI, IOT, sensor

Compressive Strength of Concrete Retrofitted by Fiberglass-Reinforced PET-EVA with varying thickness

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Abstract:--

The deterioration of performance of various forms of concrete structures is one of the problems currently faced by the building and construction industries. Strengthening of these structures becomes necessary whenever the flexural or shear strength of reinforced concrete is insufficient to maintain their service functions. This research study aimed to analyze the effect of varying thickness of fiberglass-reinforced PET-EVA on compressive strength of concrete for retrofitting. Experimental research method was employed in this study using ASTM C78/C78M for compressive strength of concrete. Retrofitting was with (a) fiberglass chopped strand mat (b) fiberglass chopped strand mat and fiberglass mesh, and (c) fiberglass chopped strand mat, fiberglass mesh and PET-EVA. The average compressive strength of concrete retrofitted by fiberglass-reinforced PET-EVA with 1, 3, and 5 layers were 14.994 MPa, 22.280 MPa and 20.557 MPa, respectively. The ultimate load capacity that a fiberglass-reinforced PET-EVA in terms of compressive strength for 1, 3, and 5 layers were 305.239 kN, 482.193 kN and 472.101 kN, respectively. The researcher concluded that the compressive strength of the concrete retrofitted using fiberglass-reinforced PET-EVA passed the minimum concrete compressive strength design of 13.79 MPa as prescribed by the American Concrete Institute.

Index Terms:

compressive strength, fiber-reinforced PET-EVA, ultimate load capacity, and concrete retrofitting

The Making of Financial Reporting Affected by Internal Control

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Abstract:--

Financial reporting have to provide information on how a company earns and spends cash, about getting and repaying loans, about capital transactions, including cash dividends and distribution of other company resources to shareholders, and about other factors that can affect company liquidity or solvency. Out of several literatures, it is stated that improvement of financial reporting quality is affected by internal control variables. This study was conducted on banking industry with respondents of 50 accounting staff using explanatory survey methods. The data testing used is simple linear regression with the analysis tools approach SPSS. The results of the study showed that internal control affects the quality of financial reporting. Therefore, to make a good quality financial reports, it is mandatory to pay close attention to internal controls designed in the organization.

Keywords:

Internal control, financial reporting quality, financial reporting, financial information, manufacturing company.

The Success of Accounting Information Systems Observed from Individual and Organizational Factors

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Abstract:--

Personality traits and organizational structure are a concept that is quite popular and complex. Both of these conceptscan be identified as factors that can succeed or failed the goals of applying accounting information systems to obtain accounting information. In Indonesia, there are still many difficulties faced in integrating accounting information systems. The purpose of this study is to determine, test and analyze the effect of personality traits and organizational structure on the success of accounting information systems. This research was conducted to 43 accounting staff at the Save the Children Foundation in Indonesia. Data testing chosen is multiple linear regression analysis using SPSS statistics. The results of statistical tests related to personality traits are not significant in affecting the success of accounting information systems. Meanwhile, the organizational structure affects the success of the accounting information system.

Keywords:

Personality Traits, Organizational Structure, Accounting Information System, Organizational Factors, Individual Factors

Impact of Information Technology on Learning for the Auditing Subjects

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Abstract:--

Recent information technology has experienced very rapid development that has influenced the lives of individuals and society globally. The prior business processes that used to be done traditionally have changed through using technology to become more effective and efficient. The development of information technology also has a significant impact on the field of auditing, because modern business processes that currently utilize information technology have influenced the implementation of audits, one of which is the implementation of audits process carried out using technology tools such as audit software. Changes in the implementation of audits with the help of information technology, of course, must be balanced with the knowledge of the executor of the audit (auditor) in conducting the implementation of audits, because there are risks of information technology and control in the information technology field that must be examined by the auditor. Therefore, the accounting study program must be able to keep abreast of changes in technology development, especially in the learning process of auditing courses by adjusting auditing learning using technology aids in the form of audit software, so as to prepare graduates who have knowledge and have sufficient competence about information technology audits .

Key Words:

Information Technology and Audit Subjects.

Market-driven Indian Bank Merger Announcements and Stock Returns

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Abstract:--

The Government of India, Reserve Bank of India and bank managers, in general, favour bank consolidation for various reasons. They support consolidation to create a few large global banks, to achieve rapid growth and to gain from economies of scale and scope. However, international studies and Indian studies on bank mergers indicate that the evidence in favour of bank mergers is mixed, at best. Hence, this study was conceived to analyse the effect of market-driven Indian bank-to-bank mergers on stockholders during the post-reform period, 1999 – 2014. Event study analysis was performed using the 'market model' with the BSE-500 stock index as the reference index. Each merger announcement was considered as an event and daily stock returns in a 30-day time window were computed before and after the event. Overall, if the abnormal returns had been positive it could be implied that merger announcements have a positive impact on the stock prices. However, the results indicate that stock returns of acquiring banks and acquired banks generally declined in the time period around merger announcement. In the case of acquiring banks, adverse reaction was observed in six out of nine mergers that were analysed. Among the nine acquired banks, five were listed and adverse reaction was noted in three cases. Overall, merger announcements appear to have had an undesirable effect on stock returns of acquiring and acquired banks. Hence, future merger decisions should be taken only if other alternatives are not available and such decisions must be driven by due diligence.

Keywords:

Bank Mergers, Event Study, Indian Banks, Stock Returns

Are you adapting? Farmers' Perspective towards Climate Change and Its Related Risks: Rural Pakistan

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Abstract:--

Pakistan is the most vulnerable country in southeast Asia experiencing floods and droughts as a result of climate change. Climate variability such as variation in precipitation, raise in temperature, lessening in crop yield which leads to food security specialty in low income economies. Variation in climate adversely affects agriculture sector, ground water availability nutrition, soil quality and soil organic matter, health conditions and poverty. This study is therefore examining the risks associated with climate change and the practicing adaptation measures by farm households in their farms to dealt with the adverse shocks of climatic hazards. A primary dataset of 600 farm households was collected though household survey using structured questionnaire. Khyber Pakhtunkhwa province of Pakistan was purposively selected due to its susceptible history, further four rural districts namely Charsadda, Mardan, Peshawar and Nowshera were selected. Findings of this study showed that farmers in Pakistan adopt several adaptation strategies, that includes change fertilizer, change in crop type and variety, pesticide, seed quality, water storage, plant shade trees, farm diversification, irrigation practices, off-farm activities, permanent and temporary migration and selling of assets in order to cope with climatic variability. However, lack of market access, shortage of labor, lack of access to assets, insecure land tenure system, lack of water sources, lack of knowledge and information, lack of credit sources and poverty are the main constraints faced by the small holder farmers. Findings of this research provide useful acumens to the responsible authorities for policy implementation. Our study further proposes that the governmental agencies and responsible authorities should provide proper support to the farmers such as access to information and extension services on climatic changes and adaptation and farm inputs.

Key words:--

Climate change, adaptation, vulnerability, constraints, Pakistan

Community Needs Assessment in Bucana Malaki, Naic Cavite

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Abstract:--

Bucana Malaki is a rural barangay in the municipality of Naic, in Cavite province. As one of the communities near Cavite State University –Naic Campus, the barangay has been a recipient of the different training programs of the university. In order to ensure that the training facilitators will efficiently design programs specific to the stakeholders in the barangay, a needs assessment has been done in this study. This study specifically aims to provide an in-depth assessment of the profile and needs of the community in barangay Bucana Malaki and to develop specific plans that the university can offer to relate to those needs. A survey was conducted and seventy respondents were randomly selected. Questions were asked regarding the: 1. demographic profile, 2. housing, 3. political aspect, 4. health aspect 5. barangay cleanliness 6. educational needs and the 7. livelihood/technology trainings of the respondents. Questionnaires were written in Filipino for easier facilitation of the survey.

For the demographic profile, it can be noted that a higher percentage of the respondents are female (70 %) and single (81 %). Majority of the families also fall on the nuclear type (70 %). In terms of housing, the positive aspects regarding the materials used, ownership, and the source of light and water of the community indicates that the need for shelter was met properly. Cough and colds (28.6 %) was the most common health symptom felt by the respondents followed by headache (17.1 %) and rheumatism (10 %). In terms of medicine, the respondents combine traditional (use of medicinal plants) and modern practices (professional medical help) in dealing with sickness. Meanwhile, involvement in the political aspect was high which can be correlated with the high number of registered voters (91 %). The barangay seems to have problem with waste disposal as many of them (45 %) cannot provide specific location for disposal. In terms of educational needs, subject areas were chosen for the adoption of the literacy program and the basic subject which is reading took the highest votes. Finally, among the training choices offered, trainings on the set-up of small business, marketing and basic computer skills were the most preferred. Based on the assessment, three priority needs among all the seven areas were identified and strategies for implementation were also formulated.

Keywords:

Needs assessment, priority programs formulation, training, community, profile, technology dissemination

Rebuilding Cultural and Heritage Space of Corregidor Island using GPS Based Augmented Reality

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Josephine Dela Cruz, University of the Cordilleras
Michelle Mamaril, University of the Cordilleras

Abstract:--

One of the biggest impact of Augmented reality was on the architectural and construction industries. The AR ability to design and construct beyond visualization by virtually walking through the completed model draws inspiration among the researchers the desire to preserve memories behind the war-ravaged buildings that have not been restored, and left as they were after the war in reverence to the Filipino and American soldiers . The software engineering tool , rational unified process , was used as a guide in developing the application with the aid of Android Studio, Unity, Vofuria, Lumion8 and sketch-up as software development tools.

The application was tested and evaluated by IT experts and tourists of Corregidor using the SUS evaluation tool. Based on the overall satisfaction, usefulness and ease of used among the tourists of Corregidors is "Excellent" which means that the developed mobile applications is more immersive and engaging that will make tourist journey more exciting at the Corregidor Island. This application can assist tourist in experiencing more interactive, fun and engaging journey in Corregidor. Furthermore, this application can served as a mobile tour guide application made for the tourist of Corregidor Island that shall help them learn more about the history and the significance of Corregidor Island by the use of augmented reality to show the original setup of the ruins. The application will help NCCA cascade the historical information about the island and its significance during the war.

Keywords:

Augmented Reality, Corregidor Island, GPS-Based Augmented Reality, Cultural and Heritage Space

Budgetary Slack on SOEs in Bandung-Indonesia: The intervening Effect of Information Asymmetry on Participative Budgeting and Budgetary Slack

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Abstract:--

Budget is an important tool in strategic planning and corporate control. Budget control is done by comparing the budget with actual conditions and is used as a basis for evaluating the performance of business units or individuals. So, individuals or business units will negotiate to create budget targets that are easily achieved by utilizing asymmetric information, to create a budget slack. This study aims to analyze the effect of participative budgeting on asymmetric information and its impact on budget slack. Data collection in this study was carried out by distributing questionnaires, interviews, and FGDs which results were analyzed with the structural equation model (SEM) LISREL. The results showed that asymmetric information has a positive effect on budgetary slack and participative budgeting has a positive effect on asymmetric information.

Keywords

Budget, Participative Budgeting, Asymmetric Information, Budgetary Slack

Metamorphosis An Action-Adventure Shooter Game

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Abstract:--

Video Game is an electronic game that involves interaction using different electronic mediums such as computers, consoles and mobile devices. Video Games are playing a big part in the entertainment industry as a form of leisure, advertisement, treatment, training and simulation, education, and a new form of art and literature. Video games are the new form of adventure books, where people will play a character in a story that will immerse them to a whole different reality. They are also a form of escape, where people tend to go to in times of despair, boredom, or simply bonding with others. Playing video games can enhance someone's hand and eye coordination, it can let anybody experience a new story, sometimes it let's people discover something new and learn from it, and maybe pick up a moral lesson and use it as an inspiration or philosophy in life. Video Games can tell a story and the player can play the part of the main character by giving him life trough decisions and actions.

Metamorphosis is an action-adventure shooter game, where the player will follow a narrative and discover the story behind the main character, Abeo, the Mega Bunny. The game will revolve around a storyline telling a tale about the adventures of Abeo and his quest to defend the citizens and stop evil to promote peace. The game's story is in a fictional setting where animals are depicted as human like beings. This project will be published in the Personal Computer (PC) platform. It is a combination of 2 dimensional (2D), 2.5 dimensional (2.5D), and 3 dimensional (3D) arts, where the main levels are created in 2.5D, visuals and cut scenes are drawn in 2D, and some mini games or side quests are in the 3D space. Other features of the game includes a visual novel representation of the metamorphosis story depicted in the cut scenes and some choices that the player can make in game, mini games or side quest where the player can earn more currency points that can be used on enhancing the main character's equipments and status, a combat system that is mild and non violent yet immersive and challenging, and a plot twist that can add fun to the game's funativity.

A closed beta evaluation of the game is currently being conducted to test the immersiveness, quality of assets, and the experience level of the game play.

The Influence of Employee Individual Performance and Staff Turnover Intentions on Dysfunctional Audit Behavior

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Abstract:--

The Purpose of this research is to analyze and examine the Influence of Employee Individual Performance and Staff Turnover Intentions on Dysfunctional Audit Behavior among auditors working for one to five years at Public Accountant Firm in Jakarta and Bandung. The sample of this study is auditor who working for one to five years at Public Accountant Firm in Jakarta and Bandung by using purposive sampling. Data collecting was carried out by questionnaire were submitted directly. This study performed in 79 auditors who works for one to five years at Public Accountant Firm in Jakarta and Bandung. The research method is explanatory descriptive. This study also apply multiple regression analysis. Based on data analysis result, it can be concluded that Employee Individual Performance and Staff Turnover Intentions both simultaneously and partially give impacts to Dysfuctional Audit Behavior among auditors working for one until five years at public accountant firm in Jakarta and Bandung.

Index Terms

Employee Individual Performance, Staff Turnover Intentions, Dysfunctional Audit Behavior.

Investigating dynamic co-movements and correlations in the European Union (EU)'s financial sector: An empirical analysis

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Andrei Cosmin Tenea, PhD student, University of Craiova, Faculty of Economics and Business Administration, Craiova, Romania

Abstract:--

This article studies co-movements and correlations between financial sectors in European Union over the last decades, by using a Dynamic Conditional Correlation model. The financial sectors have been severely affected by the extreme events triggered in the aftermath of the global financial crisis and European debt crisis. Therefore, we consider important to document the patterns of the time-varying co-movements for the European Union financial sectors. This will allow us to identify how each country's financial system responded in turmoil periods and to document the integration paths within European Union. The findings reveal an increased asymmetry with respect to the integration level. Also, the co-movements have been influenced by the crises effects. In our view, the lack of financial integration raises important questions regarding the functioning of the European Union, in particular, and the banking and capital market union, in particularly. The internationalization of financial sectors and global economic inter-linkages provide growing investment opportunities in the context of diversification.

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Smart city concept (SCC) to ensure transparency in public utilities & services sector of emerging countries.

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Dr. Jihad Awad, Associate professor in Department of Architecture, Ajman University, Ajman, UAE.

Abstract:--

In contemporary time the smart city concept (SCC) is considered as a viable solution to boost the efficiency of city operations and services concerning with common citizens in many developed countries. The key function of smart city concept (SCC) is to adapt or replace the traditional system of city management system with (ICT) based technology. This study developed the criteria that services sector of emerging countries is plagued with corruption and adaption of ICT technology will ensure transparency and improve the functions and management of a city. These criteria defined opportunities that would facilitate and permit rapid graphic interaction among common citizens, governments, businesses, and several agencies. This study found that corrupt practices in public sectors of emerging countries has affected the common citizen in these countries. Moreover, study has examined the need of adopting (SCC-ICT) tool to control the malafide practices in public sectors of emerging countries. In addition, also established that (SCC-ICT) would facilitate the citizens to get the public sector services in transparent and timely manner. Urban governance, organization, transportation, energy, and revenue collection are considered as key factors of city management and this study has presented a model to show the possibilities adapting the new ICT technologies in addressing these urban challenges. The study is divide into three parts; First part of this study presented the definition and general understanding of smart city concept and information communication technology. In second part, highlighted the facets of corruption in public sector of emerging countries and its implications on citizens. Whereas, in third part of study has appraised the need of ICT system and proposed a model to ensure transparency and minimize the corruption in services and utilities sectors of emerging countries.

Keywords:

smart city concept, information communication technology (ICT) and corruption in public utilities & services sector.

Analysis of Cruciate Ligaments of the Knee after Uni-Compartmental Arthroplasty

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Abstract:--

Cruciate ligaments of the knee play important role in successful outcome of uni-compartmental replacement of the joint. Correct surgical techniques influence patient outcome critically. Moreover, positions of prosthetic components on bones with variations of a few millimeter are shown to have effects on the joint kinematic.

In the present study, mathematical simulation of a similarly replaced knee was used to analyze behavior of fibers in the cruciate ligaments. Anatomical parameters and material properties of the major knee structures in the sagittal plane were obtained from literature. Prosthetic components were modelled similar to those available in the market. The joint kinematics was simulated in unloaded state for 0–120o flexion.

During the simulated knee motion, the upper bone rolled backwards on the lower bone by 8 millimeters, which agreed with previous experimental observations. Detailed analysis showed that selected fibers of the cruciate ligaments contributed to this pattern of movement. Additional relative translations of the bones systematically stretched or slackened ligaments fibers depending on their bony attachments.

The analysis shows that groups of ligament fibers played distinct role in the joint kinematics which was also influenced significantly due to component positions on the bones. The study has relevance to uni-compartmental knee arthroplasty.

E-Healthcare Services – Actual Usage and Intention to Use among Indian Consumers

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Smitha Nayak, Associate Professor, MIM, MAHE, Manipal, Kanataka, India

Abstract:--

The boom in the information technology (IT) has drastically changed the life style of people today. The electronic commerce plays a vital role in digital revolution by transforming the Indian consumer's buying behaviour, and the usage of smart phones, internet, etc., have radically increased among the Indian consumers. The IT revolution has brought a profound renovation in healthcare services too. The huge health information on internet and various healthcare apps available in market have led to the emergence of Electronic Healthcare Services (e-healthcare services). In most of the developed countries people use e-healthcare services to retrieve any kind of information regarding health. This mainly saves the time and energy of the people. The information with regards to health can be obtained from open sources, healthcare apps such as diet apps, fitness apps etc. Moreover, the mobile health apps such as Practo, Docsapp etc., do provide anytime assistance to the users. Today, due to rapid increase in IT usage for healthcare services by the consumers, it is quite essential to the measure the impact of health information provided by websites and apps to their users. The e-healthcare can be viewed as the future of healthcare which is focused on providing quick, better and affordable services to the customers. Therefore, this study attempts to examine the behavioural intention to use and actual usage of the e-healthcare services. A self-administered questionnaire was distributed among the student community in Manipal, Karnataka, and at most 267 students participated in the survey. This study provides an understanding to the researchers aiming at identifying the factors determining the behavioural intention to use e-healthcare services and actual usage. Further, the study brings out the first order dimensions to measure the second order dimension of perceived value of e-healthcare services.

Keywords :

Information Technology, E-healthcare services, Behavioural Intention, Actual Usage, and Perceived Value

Index Terms— Service Quality, ESQ, ERSQ, 3PL and LSQ

A Novel Approach: Refinement of Well-being System for Automobile Users

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Abstract:--

Road mishaps have made India dubious, with noticeable deaths annually, which in turn has overtaken China and now has the worst road traffic accident rate worldwide (World Health Organization, WHO). Every factor influencing the movement of the vehicle may contribute to prevent the cause of accident. One among the potential reason for the occurrence of accidents are due to users/driver distractions (30% out of total accidents). This not only affects the co-mates of the vehicle, it also affects the pedestrian users and other vehicles. Therefore, accidents can be reduced by smart conveyances by implementing technologies. Our endeavor behind this approach is to analyze present day condition of Indian automobile industry (two wheelers) and its standard by keeping the current information in mind. Therefore, hereby we propound an idea for automobile users to enhance the present standard of well-being and comfort in Indian vehicles. The main objective of our idea is to employ a refined safety system in two wheelers to reduce accidents occurring due to the act of drowsiness and single hand drive.

Groundwater fluoride status and its effects on the people of the rural areas of Guntur District, Andhra Pradesh

Dr. Babu Rao Gudipudi, Associate Professor, Department of Civil Engineering, Narasaraopeta Engineering College, Kottapakonda Road, Yallamanda (P), Narasaraopet

Abstract:--

Fluoride in groundwater is considered to be a toxilogical geo-environment issue when it is present in excess or deficient. In view of this Nuzendla mandal of Guntur District is carefully chosen for the present study. The study intends to identify the groundwater fluoride levels in and its impact on people living in the study area. Fifty groundwater and urine samples from the study area were collected and dental survey was also conducted in selected five villages of the study area. About 64% and 72 % of the total groundwater samples during pre-and post-monsoon periods are exceeding the safe limit of F- (1.5 mg/L). Dental survey indicates four out of five villages are exhibiting higher Community Fluorosis Index value (> 0.6) may causes public health problem. Urine sample survey suggests that urine F− content in most of the locations is exceeding the acceptable concentration of 1.0 mg/L. This shows that the groundwater consumed by the individual itself is main causative factor for fluorosis hazard in the study area.

AQUILA (THE SOLAR POWERED DRONE)

Chhavi Sharma, B.Tech, CSE, Jayoti Vidyapeeth Women's University, Jaipur, India

Abstract:--

Today, individual can't consider getting by without web as it turns into the inescapable piece of their life where each and everything in this world is associated together with the assistance of web. Availability is one of the key difficulties to accomplish this, and for the equivalent nonstop endeavors have been attempted and these days endeavors have been made toward sky or (towards the sky). As number of the clients getting to web continues expanding step by step, and for the equivalent facebook makes an activity in type of DRONES. This paper centers around the system which is a level in front of the past ones for giving internet providers and the activity taken by task dealt with by facebook and Internet.org In the type of "FACEBOOK DRONES". Pointing to give network access to the territories of the existence where people have no or little web get to. It is a system of giving internet providers through immense automatons which has a wingspan of a Boeing 737 weighing not exactly a vehicle will work at the tallness of 60,000 to 90,000 feet , noticeable all around ,and can remain airborne for a quarter of a year while offering the web velocities of 10 gigabits per second.

Keywords:

Drone, Boeing 737, Laser technology, Unnamed Aircraft Vehicles (UAV)

Value Chain Analysis and Community Based Strategies of Chirayita (Swertia chirayita) in Eastern Nepal

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Kattel, Rishi Ram, Assistant Professor, Agriculture and Forestry University, Rampur, Nepal

Abstract:--

The study has attempted to conduct the study on value chain analysis of Swertia chirayita, a perennial herb, is the major source of income in rural households of eastern Nepal. The field assessment for the Chirayito value chain was conducted out in Taplejung district of Nepal. The information was primarily collected through Focus Group Discussions (FGDs) and Key Informants Interview. Interview with middleman and buyers were also carried out in the district headquarter and directly in the fields. It was observed that Chirayita market is decreasing as compared to the previous years. Therefore, Chirayita farmers have searched for the alternative crops for sustainable income in their own locations. However, some Chirayita farmers are still hopeful about the stability of Chirayita prices so that they would convert their uplands and sloppy lands to Chirayita farm for enhancing their income which ultimately helps for sustainable livelihoods. The Chirayita price was NRs 250 to NRs 375/kg in 2018 in Taplejung district. In 2015, farmers used to sell the dried Chirayita at the rate of NRs 650/kg which is a huge difference. The local traders have sold the dried Chirayita to Bangladeshi buyers up to 5% of total production. Likewise, 40% market in China and 50% market in India. Less than 5% of Chirayita production has been used for different medicinal purposes (Typhoid fever, cough, diarrhea, gastric, etc.) for home consumption. Nowadays, traders are interested to sell their Chirayita to Chinese buyers due to high margin or profit. The cost of production per Ropani land was calculated as NRs. 14455 after discussing with local farmers in Sirungkhim, Taplejung. Local farmers have also highlighted the products of Chirayita which can easily be sold in the markets such as Chirayita herbal tea, powder form of Chirayita (for gastric, ulcer, jaundice, blood sugar, blood pressure, typhoid fever patients), Chirayita face wash (for cosmetic items) and other herbal extracts as required. Therefore, concerned authorities should encourage to farmers, cooperative members and other concerned stakeholders create an environment for value addition of Chirayita which ultimately helps to create the income generation of poor and disadvantaged people sustainably.

Keywords:

Value Chain, Chirayita, Cultivation, Cooperative, and Livelihoods

Ethics Position and Global Citizenship Identity of Selected 1st Year College Students of the Lyceum of the Philippines University Cavite: Basis for a Proposed Enrichment Activities for the Course Contemporary World

Dan Jefferson B. Lopez, Lyceum of the Philippines University Cavite

Abstract:--

The purpose of this study is to determine if there is a significant relationship between the level of the ethics position and extent of global citizenship identity of selected first year College students of the Lyceum of the Philippines University Cavite. This study used two ethics positions which are idealism and realism based on the Ethics Position Theory of Donelson Forsyth. It also aimed to propose for enrichment activities in teaching the newly offered general education course in the Philippines, Contemporary World. Standardized questionnaires were utilized to measure the level of ethics position and extent of global citizenship identity, namely, the Ethics Position Questionnaire (EPQ) by Donelson Forsyth (1980) and Global Citizen Scale by Stephen Reysen (2012). Spearman Rank Order Correlation was used for statistical analysis of data. Findings show that both the level of idealism and relativism have significant relationship with the extent global citizenship identity of the respondents. This revealed that the higher the level of idealism and relativism is, the higher is the extent of the global citizenship identity. It is therefore recommended that higher education institutions offering the course Contemporary World should design activities and instructional strategies that will increase the level of idealism and relativism of students to effectively realize the objective of enhancing the global and cultural awareness skills of the 21st Century learners.

Index Terms-

Ethics position, idealism, relativism, global citizenship identity, Contemporary World

User's Response on Core Factors to Consider on the Choice of Operating System and Evaluation of Its Effectiveness

Dannel A. Pon-An, Student, Computer Studies Department, De La Salle University – Dasmarinas

Abstract:--

As colleges and universities compete to each other in terms of what they can offer students especially in terms of technology, the need for having computers in schools is a must. Computers will not run without the use of operating system and in choosing the best operating system to be implemented in computer terminals, security, productivity, capability, interface and reliability shall be considered. The point of this study is to identify the core factors that drive the choice of operating system of the people from colleges and universities in Dasmariñas City, Cavite to arrive at reasons why they chose the operating system they use today. This paper will try to consolidate which operating system is mostly used by the students and teachers / professors / instructors in the teaching and learning process and eventually explore and differentiate the core factors considered by the participants.

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Manipulating Geotagged Photos Using Content Based Method to Recommend Tourist Destination

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Abstract:--

In this modern day, travelers' public geotagged social media data is opening a new world of ways to investigate tourism related research. In this study, I will describe efforts to bring these tourism data mining trends together, by manipulating and developing tourist destination recommender system for travelers, based on social media geotagged data using content based method-algorithm. First I will investigate why people geotagged and where this public geotagged data comes from. Then, process and prepare the data, and develop a model of user preferences and similarities of what tourists want through a series of validation, interviews and surveys. Finally, I will develop an application tourist destination recommender system based on social media geotagged using content based method to guide travelers and promote MIMAROPA, Philippines tourism site. Today, we need tools for discovering relationship between data items or segments within images, classifying images based on their content. And show not only how social media can be used to help people travel, but also develop a perspective on what social media tells, and does not tell, about tourism and cities using data mining technique and algorithm. This also matches tourists' needs ideally specifically for travelers looking tourism places and providing an exciting new opportunity for a new generation of tourism researchers to explore tourism geotagging data and hopefully beneficial to tourism agency to establish a culture of sustainable tourism.

Keywords:

geotagged, content based, recommender system, data mining, algorithm

A Hybrid Levenberg-Marquardt Artificial Neural Network Model: Genetic Algorithm for Multi-Objective Strength Optimization and Parametric Analysis of Strength with Surkhi and Corypha Utan Lam Fiber

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Abstract:--

Fiber-reinforced concrete (FRC) is one efficient innovation in concrete industry that has the ability to enhance the mechanical properties significantly. Rapid industrialization and urbanization caused a sudden boom in the construction industry resulting to an increase in infrastructural activities which resulted in greater demand in production of different construction materials which have a negative impact on the environment. This study aims to determine the mechanical performance of the optimum compressive and flexural strength of buntal fiber-reinforced concrete with surkhi as partial replacement for sand (BFRC-SS). Using 28th-day compressive and flexural strength, several mixtures were experimentally tested to derive a mix proportion that will give the best mechanical properties of BFRC-SS. From the results, best hybrid models of compressive and flexural strength were formulated using Artificial Neural Network (ANN). Parametric studies were conducted to show the individual effects of surkhi and buntal. Numerical analysis and graphical results showed the behavioral trends of varying values of material components by holding one variable to minimum, maximum and mean value at a time. Results showed that ANN was able to establish the effects of surkhi and buntal (Corypha utan Lam) fiber to the mechanical properties of BFRC-SS. Furthermore, the multi-objective Genetic Algorithm (GA) model generated the optimum proportion for the best compressive and flexural strength. Parametric analysis showed a constitutive relationship between material components and mechanical properties of concrete. Fuzzy Inference System (FIS) and Multi-Linear Regression Analysis (MLRA) were also utilized to assess and validate the hybrid model through surface imaging. Utilizing least percent error, ANN hybrid model showed the most significant predictive model compared to other models generated by MLRA and FIS. To protect intellectual property, and to ensure the exclusive right of the authors, the validated hybrid model generated from ANN and multi objective GA was copyright protected. Adopting the fusion of 4.0 Industrial Revolution and favoring creativity and integrity through artificial intelligence.

Index terms -

Surkhi, Buntal Fiber, Artificial Neural Network, Multi-Objective Genetic Algorithm, Parametric Testing, Fuzzy-Inference System, Multi-Linear Regression Analysis

Reverse innovation in Marketing Strategy

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Abstract:--

Developing markets are expanding quickly and gave turned out to be most essential for worldwide economy while the development of created advertise has turned out to be back off. Developing markets are the home of new sort of advancement that can encourage worldwide. Turn around development is another methodology that clarifies the creating parsimonious item in expanding markets that are later presents ahead of time economy. To build up a structure of Reverse Innovation in showcasing we have researched on different object to find the critical issue and solution of the issue (Abernathy, 2010).

The main aim of this study is to analyze the concept of reverse innovation in context of multinational firm worldwide and to focus on the developing product in a country and distribute them globally and to provide the better product for the customers and variety of option to choose at reasonable prices. To analyze this objective in the first part of this research we explain the concept of Reverse innovation and how it will be effective in marketing strategy, and after explaining the concept, we describe some theories of Reverse Innovation through review of Literature with examples and third part of this research we have explained the methodology of the research with a real life example of Case study for reverse innovation in marketing strategy and the fourth part of the study we analyze the data through graphs and charts collected from survey.

Keywords:--

Reverse Innovation, multinational firm, Marketing strategy, globally

Educators' Perspective towards Climate Change: A Case of Batangas Province

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Dr. Meniano D. Ebora, De La Salle University-Dasmarinas, Batangas State University- Graduate School Professors
Dr. Lilia A. Ricero, De La Salle University-Dasmarinas, Batangas State University- Graduate School Professors

Abstract:--

This study aimed to determine the educator's perspective towards climate change in Batangas Province. It determined the profile relative to age, sex, civil status, educational attainment, length of service and specialization. It tackled the views of the respondents on climate change in the society and perception about environmental concerns with regard to climate change. It focused on the extent of the responses to the effects of climate change relative flood, warm temperature and tropical storm. It ascertained the significant difference on the respondents' responses on the effect of climate change when grouped according to profile. It determined the significant relationship on the perception on climate change in the society and their views about environment concerns. This investigation utilized descriptive method by purposive sampling from randomly selected 357 educators in Batangas Province using questionnaire. The study used inferential and descriptive statistics for data analysis. Majority of the respondents were 21 to 40 years of age, female, married with units in master's degree. They strongly agreed that education sector has great role in educating the community people. They agreed to stay tuned to local radio and television and cooperate in the advocacy on climate change. It is concluded that there is no significant difference in the educators' assessment on their responsiveness to climate change. There is a significant relationship between the respondents' perception about climate change and environmental concerns. The mitigating plan may be presented first to the concerned authority in the Department of Education for their review and suggestions.

Index terms:

Climate Change, Environmental Concerns, Educators, Descriptive, Mitigation

Experimental Investigation on the Compressive Strength Attributes of Non-Load Bearing Concrete Hollow Blocks with Nalta Jute Fiber as Additive

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Allan R. Alzona, Faculty, Civil Engineering Department, National University – Manila
Cresencia M. Vahdanipour, Faculty, Civil Engineering Department, National University – Manila

Abstract:--

The disposal of waste is one of the current issues that plague the society today. Philippines, being an agricultural country, produces a large amount of agricultural waste which if not disposed properly, poses a threat to the environment and to public health. Due to the advancement of technology, studies have been made utilizing agricultural waste as additives in various construction materials in order to improve its mechanical properties. To address the problem of agricultural waste disposal as well as the constant pursuit to improve the mechanical properties of construction materials, an assessment of the compressive strength attributes of Non-Load Bearing Concrete Hollow Blocks (CHB) with Nalta Jute Fiber as additive was carried out. A parametric study was done to investigate the effect of varying proportions of jute fiber (1%, 3% and 4% by volume of concrete) on the compressive strength of the specimens and it was compared to a control sample (0% fiber). The specimens were cured for 7, 14 and 21 days. It was observed that from all the proportions, the 1% concentration of Jute Fiber yielded the highest compressive strength of 4.36 MPa which was 3.32% higher than the control sample.

Keywords:

Compressive Strength, Concrete Hollow Blocks, Jute Fiber, Waste.

Study of Structural Properties of Colloidal Suspensions by using Brownian Dynamic Simulation

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Abstract:--

The simulation study of colloidal suspensions is important to control the release of active ingredient such as in pharmaceutical industry. For a controlled release application, we need to know how the stability and dynamics of suspension dispersion are impacted by different solution conditions. In this work, we used Brownian Dynamic simulation to study structural properties colloidal suspensions. We modelled the binary particles with solvent that are relatively small than the colloids so the solvent can be treated as the continuum in this simulation technique. The size ratio of large to small particles in this binary colloidal suspension is varied at 2:1, 3:1, 4:1, 5:1, 8:1 and 10:1. The colloidal suspension is suitable as an ideal model to study the characteristics and dynamics of particulate systems in detail because it is easy to shape the interaction potential in the colloids system. This interaction potential is varied by adjusting the salt concentration in the suspension. The interaction of aggregates (clusters) formed through DLVO and the rate of clustering is varied by altering the shape of the primary minimum coupled with primary maximum in the potential that acts as a barrier for the irreversible aggregation. We found that the structural properties of binary colloidal system are correlated by varying the size ratio of large to small particles.

Index Terms:--

Brownian dynamic, colloidal suspensions, Particle gels, Size Ratio

Size-dependence Responses of Elastic Layer Rested on Half-Plane under Surface Loading

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Abstract:--

This paper presents the mechanical response of a two-dimensional, elastic layer rested on an elastic half-plane under surface loadings by taking the influence of material micro-structure into account. An underlying mathematical model is established within the continuum-based framework via a linear elastic couple-stress theory. The generalized Navier's equation governing the displacement field is formulated and the method of Fourier integral transform is applied to construct its general solutions in a transformed space for both the layer and the half-plane. A set of boundary conditions and the continuity of fields along the material interfaces are enforced to obtain a system of linear algebraic equations governing all unknown degrees of freedom of the whole medium. An efficient quadrature is then adopted to carry out all involved integrals arising from Fourier integral transform inversion. A selected set of results is reported not only to confirm the validity of established solutions but also to demonstrate the capability of the selected mathematical model to simulate the size-dependency when the external and internal length scales are comparable.

Assessment of Mathematics Cognitive Skills among National University Students: Basis for an Intervention Program

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Abstract:--

The study assessed the mathematics cognitive skills of national university students using the developed assessment tool. An intervention program based on the identified least mastered skills of the students was designed. The Mathematics Cognitive Skills Test was the main research instrument used to gather the needed data. This test was developed based on the identified cognitive skills which are prerequisites in the mathematics education curriculum. The development test underwent several stages and its validity and reliability were established. The participants of the study were 360 college students in the National University. The test was administered to them and the results were analyzed to find out their weaknesses and their least mastered skills. The findings revealed that majority of the students are poor in almost all prerequisite topics in the senior high school curriculum. Thus, the intervention program developed by the researcher is recommended.

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Analysis of Customer Relationship Management Systems for the Improvement of Business Relationships

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Abstract:--

Customer Relationship Management Systems (CRM) is a tool typically used by large company for contact management, sales management, productivity and more. It enables a business to deepen its relationships with clients, service users, colleagues, partners and suppliers for one of the goal of having CRM system is to improve business relationships. In this paper, the proponent made to compare the two of the different kinds of CRM system that is widely used in the industry that is Salesforce and Microsoft Dynamics. Both products offer similar core functionality, but Salesforce is more of pure sales CRM while Microsoft Dynamics is a CRM better known for operations management.

Keywords

Sales, Operations Management, Customer Relationship, Business Relationship, Management Systems.

Effective Teaching Methods among Students of AMA Computer College Cavite Campus

Joseph Sy Butawan, AMA COMPUTER COLLEGE, CAVITE CAMPUS

Abstract:--

INTRODUCTION

Teaching method comprises the principles and methods used for instruction. Commonly used teaching methods may include class participation, demonstration, recitation, memorization, or combinations of these. The choice of teaching method or methods to be used depends largely on the information or skill that is being taught, and it may also be influenced by the aptitude and enthusiasm of the students. This study aims to determine the effectiveness of various teaching methods used for teaching students among students at AMA Computer College Cavite Campus.

METHODS

Convenient Sampling method was applied on this study. The researchers used the survey questionnaire method to gather inputs from the students. The main objective of this measurement is to find out which among the different teaching methods is best and interesting for the students.

RESULTS

One hundred and fifty undergraduate students studying in AMA Cavite Campus were interviewed about their perceptions of best and effective teaching methods and the reason for that. Most of the students rated lecture method as the best teaching method. Reasons included; teacher provides all knowledge related to topic, time saving, students attentively listen to lecture and take notes etc. The group discussion was rated as the second best method of teaching because of; more participation of students, the learning is more effective, the students don't have to rely on rote learning, and this method develops creativity among students etc.

DISCUSSIONS

Results of the study can be used as a tool in enhancing the current methodologies used by the instructors of AMA Cavite Campus. Furthermore this study will help instructors in motivating their students in their studies.

Keywords:

Methods, Discussion, Priniciples, Instruction.

Project T2P: A Basis for Establishing the Culture of Research in Bulihan National High School, Silang, Cavite

Joseph Sy Butawan, BULIHAN NATIONAL HIGH SCHOOL SILANG, CAVITE

Abstract:--

INTRODUCTION

Initiating and maintaining a culture of research may take years to develop and once established it requires regular maintenance. Plans for the research culture may include the teachers, school administrators, guidance counselors and the stakeholders will join hand in hand to improve educational outcomes. Through this, it will design a research program that will help teachers to conduct research on their own.

METHODS

This study used descriptive research design and there are 126 teachers respondents in Bulihan National High School. The researcher utilized stratified sampling.

RESULTS

The teachers participants were agree to all the indicators on assessment of culture of research in terms of "I will engage in research" with overall weighted mean of 4.08 with a verbal interpretation of agree for the past three years of 2015-2018. Moreover, the teachers participants were neutral to all the indicators on assessment of culture of research in terms of "I will not engage in research" with overall weighted mean of 3.09 with a verbal interpretation of neutral.

DISCUSSIONS

This study is limited for teachers and school administrators in the Department of Education (DepEd) that will help them to enhance and develop their research capabilities through different programs created by the researcher. The future direction of the research is to continue upgrading of skills among teachers and school administrators through training's, seminars and workshops that should regularly conducted so that they will acquire the most up to date skills in research writing.

Keywords

Theory, Practice, Research Culture, Assessment, Teachers.

Phytochemical Analysis and Microbial Property of Parasol Leaf Tree or Elephant's Ear (Macaranga Tanarius): it's effect on the fermentation of sugar cane extract

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MA. Cristina Lalaine M. Nerona, Associate Prof. V, Isabela State University, City of Ilagan Campus

Abstract:--

The study was conducted to perform phytochemical analysis and microbial property of parasol leaf tree or elephant's ear (MacarangaTanarius), its effect on the fermentation of sugar cane extract.

This study used experimental research design in an actual laboratory set- up. There were three phases in the experimental study. Phase 1 was the preparation of the plant sample fresh leaves, dried leaves extraction using distilled water and ethyl alcohol. Phase 2 was the phytochemical analysis to determine the presence of alkaloids, sterols,glycosides. triterpenes, flavonoids, saponinsand tannins.Phase 3 was the microbial property to test organisms.

Findings shown that the parasol leaf tree (MacarangaTanarius) leaf extract contain sterols, triterpenes, flavonoids, saponins, glycosides and tannins. But it does not contain alkaloids.

The samples, fresh and boiled (Samak) Parasol leaf tree or elephant's ear leaf extract produced inhibitory activity (++) with mild reactivity (2) against the test organisms, Escharichia coli, Staphylococcus aureus, and Salmonella typhimurium. Both produced complete inhibitory activity (+++) with mild reactivity (2) against the test organism, Pseudomonas aerufinosa.

Amikacin 30 ug, which served as positive control for E. coli, S. typhimurium, and P. aeruginosa, produced complete activity (+++) with severe reactivity (4) against the test organisms.

Oxacillin 1 ug, which served as positive control for S. aureus, produced complete inhibitory activity (+++) with severe reactivity (4) against the test organisms.

The sample- free disc, which served as negative control, had no inhibitory activity (-) and no reactivity (0) against the test organism.

Based on the findings, the following recommendations were drawn a follow up study be conducted to quantify and identify the type of sterols, triterpenes, flavonoids, saponins, glycosides and tannins present in the leaves of samak. Other testing should be done using the samak leaves like tests for its nalgesic, antihypertensive properties.

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The Colors Beyond Philippine Festivals: A Sustainable Approach

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Abstract:--

The study aimed to determine the colors beyond Philippine festival relative to green practices focusing on waste, energy and water management. It tackled the positive and negative impact of festival relative to economy, socio-cultural and environment plus the marketing strategy. It ascertained the significant difference on the respondents' assessment based on concepts when group according to profile. A mixed research utilized descriptive method in collecting primary data through survey questionnaire, and supplemented interview. Cronbach Alpha was applied for the reliability of the instrument and proper validation. It covers the selected festivals in Region IV-A such as Pahiyas Festival in Lucban Quezon, Higantes Festival in Rizal, Coconut Festival in Laguna, Light Festival in Batangas and Paruparo Festival in Cavite. Krejcie and Morgan table was utilized in determining sample size through purposive sampling. Ethical considerations were observed to 400 respondents and treated statistically using percentage, weighted mean, T-Test and Analysis of Variance. Findings revealed that most of the respondents were 21 to 30 years of age, female and college graduate. The green practices, impacts and marketing strategy were found evident. Based on the analysis, the researchers proposed a sustainable plan that will help support the festivals to enhance the stakeholders' tourism experience.

FPGA implementation and analysis of Alpha stable distribution model in Power Line Communication Noise through Packet loss.

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Abstract:--

One of the best means of communication that has a good advantage over other types of communication medium is Power line communication (PLC) because of its readily available lines anywhere. However, it suffers to its very harsh environment due to its interferences and noises. PLC noise is a non-Gaussian noise with heavy-long tailed and impulsive characteristic [1], [2], [3] and [4]. Thus, an Alpha-stable distribution model can represent the types of noises with these characteristics. Representation of five types of noises present in the PLC channel; background noise; narrowband noise, periodic impulsive synchronous noise, periodic impulsive asynchronous and aperiodic impulsive synchronous is independently analyze. This work presents the packet loss analysis of the mimic PLC noises through FPGA implementation. Point to point (P2P) communication is the settings and noise injection on the line applies for analysis.

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Macroscopic Flow Model of State Highway Midblocks under Mixed Traffic Flow Conditions

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Abstract:--

Macroscopic flow modeling has been fundamentally used to characterize and predict the traffic flow parameters of a continuous road utilizing the analogy for one-dimensional fluid flow. In the Philippines, Ramon Magsaysay Boulevard is a major arterial road that links Manila City to various important cities in the Metropolis. Due to its recognizable deteriorating performance in addressing the increasing traffic flow demand, this work investigated the corridor capacity and characterized the key traffic elements along the three major midblocks using Greenshield's model and Greenberg's model. It is assumed that road users behave uniformly and continuously distributed over the highway to choose a path to minimize their total travel time based on instantaneous traffic information. Traffic studies and results show traffic flow demand exceeding the design traffic capacity.

Keywords:

Macroscopic flow models, greenshield's model, greenberg's model, stochastic flow

VoiceAid: A Voice Based Multi-Platform First Aid Application using Jaccard Similarity Index Algorithm

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Abstract:--

The purpose of this study was to create a First Aid application that would help users to be able to provide immediate assistance in times of emergency situations. The researchers utilized the React Native framework in creating a multi-platform application, React Native Voice API for the Voice Recognition, Firebase for its Database, React Native Geolocation and Maps for identifying the nearest hospitals, React Native Immediate Phone Call and the implementation of Jaccard Similarity Index Algorithm for identifying the best treatment. The researchers used the Agile Scrum Methodology for tracking down the development progress. The researchers tested the application on both Android and iOS devices. It was also tested on the following aspects: location, distance, and how fast the app responded. As per recommendation for the users, the researchers would suggest using Android mobile devices in installing the app since Android devices were more flexible but for Apple devices, the researchers would suggest using devices released after iPhone6 and the iOS version must be higher than the version 8.2. The researchers would also suggest placing the app near to the user's mouth for a better voice command detection especially on crowded places.

Development of Feed-in Tariff for PV in the Kingdom of Saudi Arabia

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Abstract:--

Feed-in tariff (FIT) is the most commonly used strategy worldwide for promoting renewable energy. The FIT strategy mainly consists of three key elements—connecting to the grid, long-term contracts (10 to 20 years), and reimbursement levels that are founded on the prices of renewable energy production. The most common renewable energy in the Kingdom of Saudi Arabia (KSA) is solar energy, and it can be incorporated into the main grid through a favorable feed-in tariff that will attract investment. Saudi Arabia has the advantage of being able to use this information to assess the best approach to the economic and environmental impacts of FIT. This paper aims to review the FIT rates in Germany, then the design of FIT in this country to study the results, which helps to determine the most appropriate FIT in the KSA for different regions with regard to investment costs, household electricity consumption, compatibility with the existing grid, period required for return on assets, and long-term benefits.

Business Process Innovation through Enterprise Resource Planning Implementation

A Case of Pharmaceutical Industry in the Philippines

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Abstract:--

Enterprise systems are among the information technology (IT) solutions aimed at transforming the organization's business processes. This IT investment has been considered a major cost among organizations in the hope of streamlining business processes and maintaining a competitive advantage. However, implementing IT solutions such as enterprise resource planning (ERP) system has become an inevitable action to having an efficient business process. Specifically, this study seeks to put forward the question, "How does ERP implementation influence business process innovation?" Using a qualitative case study approach, the pharmaceutical industry was examined. This study confirms that there is a revolutionary transformation of the business process. Moreover, we identified factors that enabled and transformed the business process. The case illustrates an example of a business process innovation that can be used as a reference for companies adopting an ERP system as an IT solution.

Keywords-

business process innovation, ERP systems, business process

Developing seismic fragility curves of highway bridges in Cagayan de Oro City, Philippines using capacity-spectrum method

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Abstract:--

A fragility curve is a probability function that relates the structural capacity of the bridge to the seismic demand. In this study, seismic fragility curves are developed for the twelve highway bridges in Cagayan de Oro City. Finite element models for each bridge are constructed and analyzed using nonlinear static approach in accordance with the Capacity Spectrum Method to obtain the bridges' capacity curves. The performance points are then correlated with the defined damage state thresholds to determine the damage state of the bridge. Four damage states are defined – Slight, Moderate, Extensive, and Complete. Using linear regression analysis, the probability of exceedance for each damage state are obtained and plotted as fragility curves in terms of peak ground acceleration. The fragility curves are then compared to the peak ground acceleration values of probabilistic seismic hazard scenarios – 100-year, 1000-year, and 2500-year return periods of earthquakes. It has been observed that bridge with single-column piers are most fragile in "Slight" and "Moderate" damage states against 0.2g and 0.3g peak ground accelerations. Bridges with multi-column and wall-type piers proved to be less fragile even at the "Complete" damage state. However, this study also acknowledged that liquefaction can be a potential threat at these peak ground acceleration values which will cause eventual collapse of bridges.

Keywords-

Fragility Curves, Capacity-Spectrum Method, Highway Bridges.

Modern Trends Examination in VFX and SFX in the Animation Domain

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Abstract:--

This paper gives detailed information on modern trends in Virtual Effects and its Sub-Concept of CGI, also about the importance of Special Effects in Animation and Education domain. This Paper articulate about VFX and also involves the acclimatization of animate action and CGI to create realistic environment, effects and shots, which would otherwise be impossible or dangerous to film in real life scenario. During filming, making of some new trends of VFX plays a vital role. Our efforts are followed by the film making Industries and Institutes of Animation to clear the vision and provide no chance for audiences to distinguish between the real scene and digital Virtual scenes.

The paper further explored the discussions about a dissimilar concept in production pipeline of pre-visualization. Although it tells roughly photorealism and how to achieve photorealism in films.

Keywords-

Visual Effects, Special Effects, CGI, Pre-Visualization, Photorealism.

E-Assessment Application Using a Decision-Tree in Predicting Teachers' Ict Competency Level

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Abstract:--

The study focused on the development of the application on predicting ICT Competency of teachers based from the model created from the different decision tree algorithms. The proponent decided to create a model and develop a system on predicting ICT competency using a decision tree to assess the level of ICT knowledge and by using the standardized questionnaires. This innovation can lead to a newer paradigm using artificial intelligence. Through developing such innovation, the teachers can easily identify the level of ICT knowledge using the framework from National ICT Competency Standards (NICS) by assessing the developed applications. The algorithm used on the prediction of Teachers ICT Competency are J48 and Best First Decision Tree (BFTree) with the highest accuracy value after being test using cross-validation and classification in Weka.

The summary of the evaluation showed that the e-Assessment Application got an overall average weighted mean of 4.63, which described as a very high extent. Based on the response of the respondents, the strongest point of the system was its portability and performance efficiency, which earned the highest average mean among other major categories in the system evaluation. The e-Assessment Application in Predicting Teachers' ICT Competency Level is very useful in terms of predicting the ICT knowledge and skills through the self-evaluation of teachers. The result of the self-assessment and validation of the School Head or Department Head is a big help on identifying different intervention to improve the ICT skills of the teachers used in the teaching instruction and apply the trends in Information Technology.

Keywords-

Machine-learning, Algorithm, Prediction, Weka, Data Mining, Decision tree, ICT Competency, e-Assessment.

Factors hindering the behavior of purchasing hygenic and safe food by residents of metropolitan areas in Vietnam

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Abstract:--

The paper aims to identify and measure the impact of hindering factors to the behavior of purchasing hygenic and safe food of people in Vietnamese cities, and to propose solutions to lessen and eliminate those factors, promoting the buying behavior of the consumers, therefore contributing to the growth of hygenic and safe food production and consumption in Vietnam urbans.

The group of authors build research model; set up scales and questionnaires; apply qualitative and quantitative methods to collect data from a number of producers, distributors and survey 538 people as end-users; measure the impact of factors hindering the behavior of purchasing hygenic and safe food of people in the socio-economic conditions of urban cities. The research results show a general picture of the actual situation of buying behavior and factors that hinder the behavior of purchasing and consuming hygenic and safe food; focusing on 8 groups of issues: (i) Health and food concerns; (ii) Issues of knowledge, understanding and mentality; (iii) Social communication; (iv) Packaging and branding; (v) Socio-cultural factors and personal experience; (vi) Price; (vii) Availability, distribution, convenience; (viii) Quality. On that basis, the research team proposes orientations and solutions for hygenic and safe food businesses in areas such as marketing, communication and branding, as well as for state management agencies in areas such as communication and food supply chain management. The authors expect with the proposed solutions, the purchase and consumption of hygenic and safe food, in general and the urban areas in particular, will be promoted; thereby encouraging hygenic and safe food production and distribution, contributing to sustainable socio-economic development in Vietnam.

Keywords-

Safe food, hindering factors of buying behavior, Vietnam's urban cities