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IC-ITS 2015

International Conference on IT & Society

Venue: Meliá Hotel Kuala Lumpur, Malaysia | Dates: 8 & 9 June 2015

KOLEJ UNIVERSITI ISLAM ANTARABANGSA SELANGOR

INTERNATIONAL ISLAMIC UNIVERSITY COLLEGE SELANGOR

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International Conference on Information Technology & Society - ICITS 2015
fstm.kuis.edu.my/icits
Foreword by the Rector,
International Islamic University College of Selangor

PROF. DATO’ DR. AB. HALIM BIN TAMURI

Alhamdulillah, praise to Allah SWT for His blessing. I would like to extend my warmest welcome to the keynote speaker, presenters and participants to the International Conference on Information Technologies and Society (IC-ITS).

After successfully conducting the first conference in 2010, we have been looking forward to organize the next conference. By organizing International Conference on Information Technologies and Society (IC-ITS) we are proud to manage the conference as scheduled. With the theme “IT and Society” this conference covers topics on information technology and the society in education and industry.

It is our hope that by organizing this conference, we will be able to discuss new ideas, challenges and ongoing fundamental researches in the field of information technology. IC-ITS FSTM 2015 shall serve as a platform to share knowledge and information related to information technology.

On behalf of the committee, I would like to take this opportunity to express our deepest gratitude to all reviewers and also to thank the keynote speaker, authors, session chairperson and delegates for your great support and contribution to IC-ITS FSTM 2015.

Last but not least, congratulation to Faculty of Information Science & Technology because without their tireless effort, hardworking and commitment, this event would not be possible. Hope we will meet again in IC-ITS FSTM 2016.

Thank you.
International Conference on Information Technology & Society – ICITS 2015 is a conference hosted by Faculty of Information Science & Technology, International Islamic University College of Selangor (KUIS). This is the second conference after STMM 2014 that was held in KUIS. It is a conference to discuss research findings mainly on Information Technology and its role in the Society.

Objective

ICITS 2015 is a platform to bring together researchers, developers and practitioners from academia and industry working in the areas of Information Technology and its contribution to the Society.

Theme

“The Impact of Information Technology to the Society”

Venue

Meliá Hotel Kuala Lumpur, Malaysia

Conference Dates

8th & 9th June 2015

Medium of Papers/Presentation

English / Malay

Sub-themes

1. Information Technology in Society
2. Information Policy
3. Social Media and Community
4. Multimedia and Society
5. Multimedia Education
6. Long-life Learning
7. E-Commerce
8. Natural language processing
9. Machine Translation
10. Computer Science
11. Algorithm and Programming
12. Software Engineering
13. Decision support systems
14. Knowledge management
15. Intelligent information systems
16. Languages and programming techniques
17. Social impact of IT
18. Emerging technologies
19. Machine Learning

Secretariat

1. Dr. Noor Azli Mohamed Masrop (Advisor)
2. Dr. Azfi Zaidi Mohd Sofi (Director) - Proceeding
3. Khirulnizam Abd Rahman – Proceeding & Marketing
4. Syakirah Mohd Sofi – Proceeding
5. Norfaizuryana Zainal Abidin – Protocol
6. Nurkaliza Khalid – Treasurer & Registration
7. Nur Muizz Mohamed Salleh – Graphic Designer
8. Mohd Azrul Sulaiman – Technical
9. Che Wan Shamsul Bahri Che Wan Ahmad – Technical
PARALLEL PRESENTATION SCHEDULE
ICITS2015, Kuala Lumpur

8th June 2015
Registration (8.00 am – 9.00 am)
Venue: Seminar Room Foyer – Alhambra, Level M1

Parallel Session 1 (9.00-10.50am)

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Dr. A. Malathi
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IT 099 - TOWARDS SUSTAINABILITY IN RESOURCE SHARING: A GAME THEORY APPROACH
Mr Azhar Ahmed Mohammed
Masdar Institute of Science and Technology, UAE.

IT 110 - IMULATION OF HEURISTIC USAGE FOR LOAD BALANCING IN ROUTING EFFICIENCY
Mrs Nor Musliza Mustafa
KUIS, Malaysia

IT 013 - EFFECTIVE ROUTE PLANNING IN ROAD NETWORKS USING MULTI CONSTRAINT ROUTING ALGORITHM
Dr. J. Thirumaran Rathinam
Rathinam college of Arts and Science, India

10.50am Group Photo Session
11.00am Coffee / Tea Break

Keynote presentation /Opening (11.30am – 12.30 noon)
Venue: Alhambra 1 & 2
11.30am – 12.15 noon
Keynote presentation by:
Prof. Dr. Rozhan Mohammed Idrus
Title: IT Education and Its Impact to the Society
Faculty of Science & Technology
Universiti Sains Islam Malaysia

12.15 noon – 12.30 noon
Opening remark by:
Prof. Dato’ Dr. Abdul Halim Tamuri
Rector of International Islamic University College Selangor.

12.30 noon – 2.00pm Lunch & Solat
Lunch at The Kitchen, Hotel Lobby

8 June 2015
Parallel Session 2 (2.10pm – 3.45pm)

Alhambra 1
IT Education / IT Management / Policy/ Multimedia

IT 002 Exploring the Effective of Teaching with ICT Scale (ETS)
Mrs Haifa Halawani
IIUM, Malaysia

IT 021 - FACTORS INFLUENCING CUSTOMERS TO ENGAGE IN SOCIAL MEDIA FOR CO-CREATION: ON FASHION INDUSTRIES IN SAUDI ARABIA
Miss Maryam Al Tarhi
King Saud University

IT 081 - REKA BENTUK DAN PEMBANGUNAN KOMIK DIGITAL INTERAKTIF DALAM PENDIDIKAN
Mrs Siti Zaharah Mohid
KUIS, Malaysia
| IT 052 - USER READINESS EVALUATION OF QR CODES IN MOBILE LEARNING (M-LEARNING) | IT 023 - HEALTH WEBSITES: WHY IT IS DIFFICULT FOR SOME WEB USERS? | IT 076 - PERBANDINGAN PROFIL PRESTASI MENGUNAKAN PERISIAN MATLAB | Dr. Azfi Zaidi Mohd Sofi KUIS, Malaysia |
| --- | --- | --- | |
| Mrs Hafiza Abas UTM, Malaysia | Miss Farhana Aini Binti Saludin UTM, Malaysia | Dr. Fang-Ming Hsu National Dong Hwa University, Taiwan | |
| IT 106 - USING SOFTWARE VISUALIZATION IN LEARNING INTRODUCTORY PROGRAMMING: A REVIEW | IT 030 - ICT COMPETENCY AND EMPLOYMENT AMONG MALAYSIAN PWDS (PEOPLE WITH DISABILITIES) | IT 084 - MODEL PEMBELAJARAN APLIKASI ANDROID “JAMAK QASAR APPS” BERASASKAN ELEMEN MULTIMEDIA | Miss Nurkaliza Khalid KUIS, Malaysia |
| Mrs Noor Fadzilah Ab Rahman KUIS, Malaysia | Mr Osman Mohamed Osman IIUM, Malaysia | Miss Nurkaliza Khalid KUIS, Malaysia | |
| IT 055 - THE SYNERGY OF QR CODE AND ONLINE SCREENCAST VIDEO FOR UBIQUITOUS BASIC STATISTICS LEARNERS | IT 031 - INFORMATION SECURITY AWARENESS: CASE STUDY IN STOCK-BROKING | IT 107 - PENGUNGAAN OBJECT-RELATIONAL DATABASE MANAGEMENT SYSTEM (ORDBMS) DALAM PEMBANGUNAN SISTEM PERMOHONAN KOD PENYELIDIKAN DAN PENULISAN (SISKOD) | Mrs Shakirah Mohd Sofi KUIS, Malaysia |
| Dr Faridah Hanim Yahya IPGKL, Malaysia | Dr Rasimah Che Mohd Yusoff AIS, UTM, Malaysia | Mrs Shahirah Mohd Sofi KUIS, Malaysia | |
| IT 020 - THE TREND OF RESEARCHES IN DIGITAL ARCHIVES | IT 043 - CHALLENGES IN MANAGING THE ERP IMPLEMENTATION: CASE STUDY ON USER REQUIREMENT STAGE | IT 054 - PENGUNGAAN PERBANKAN INTERNET DI KALANGAN STAF AKADEMIK KUIS | Mrs Nurul Ibtisam Yaacob KUIS, Malaysia |
| Prof Fang-Ming Hsu National Dong Hwa University, Taiwan | Miss Nadiah Binti Zamre UniKL, Malaysia | | |
| IT 039 - INFORMATION SOCIETY, RIGHT TO INFORMATION AND THE CHALLENGE OF DIGITAL PRESERVATION IN INDIA | IT 049 - FACTORS AFFECTING LIBYAN CIZEENS IN ADOPTION OF E-GOVERNMENT SERVICES: A RESEARCH FRAMEWORK | IT 078 - PEMBANGUNAN APLIKASI MUDAH ALIH: RATIB AL-ATTAS DAN TERJEMAHAN | Mrs Rafiza Kasbun KUIS, Malaysia |
| Dr Alok Prasad University of Allahabad, Allahabad | Mr Abdulghani Abied Murdoch University, Australia | Mrs Rafiza Kasbun KUIS, Malaysia | |
| IT 079 - THE EFFECT OF INSTRUCTORS’ QUALITY AND PERCEPTION ANTECEDENTS ON STUDENTS’ BEHAVIOR IN E-LEARNING | IT 069 - Social Media for Flood Risk Management: A STUDY ON THE USE OF FACEBOOK BY THE FIRST-CLASS MUNICIPALITY OF CAINTA, RIZAL | IT 035 - APLIKASI MAKLUMAT V-SYARAH HADIS | Miss Noor Syafawati Rahim UKM, Malaysia |
| Miss Nurkaliza Khalid KUIS, Malaysia | Mrs. Teresa S. Congjuico University of the Philippines | | |

**BREAK 3.45pm Coffee / Tea Break**

**Parallel Session 3 (4.00pm – 5.30pm)**

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5.30pm - Adjourn
9th June 2015 - SIGHT-SEEING Putrajaya

09.00 Gather at Melia Hotel lobby.

- Botanical Garden
- Lunch at Alamanda Putrajaya
- River Cruise / Putrajaya Mosque
- International Islamic University College Selangor (KUIS)
- Back to Melia Hotel, Kuala Lumpur
Exploring the Effective of Teaching with ICT Scale (ETS)

Haifa Halawani

*International Islamic University Malaysia*

hifa2001sa@hotmail.com

**Abstract.** Any research have proven that teaching with ICT provide positive motivational impact. Therefore, this study explores the Effective of Teaching with ICT Scale (ETS). A 40 item self-constructed questionnaire assessed on a 5 point Likert type scale, the subscales measures nine factors in Teacher Pedagogy (TP) 15 items, Teacher Quality (TQ) 15 items, and Intrinsic Motivation (IM) 10 items. A total of 286 students were chosen through stratified sampling of students within the purposive sample. A Principal Axis Factoring (PAF) with Promax rotation was performed on the data extracted four distinct factors with (19) items, supporting the Effective of Teaching with ICT Scale (ETS) namely Teacher Pedagogy (PBL), Using ICT in Teaching, Teacher Quality and Interest & Enjoyment. The four factors explained 44.46% of the variance. The findings provide empirical evidence that the (ETS) effectively and accurately measure factors influence student’s intrinsic motivation to learn which would be helpful for the MOE as new scale and may be used for future research in this area.

**Keywords:** ETS, teaching effectively
Challenges of Typhoons in ICT: Is it a Risk to Economy?

Las Johansen B. Caluza

Leyte Normal University

lasjohansencaluza@gmail.com

Abstract. The challenge of climate change in a country’s economy greatly affects the livelihood of its inhabitants. In the Philippines, it was reported by the World Bank the need to prepare for the increased risk of disasters brought about by climate change, given that the country’s ongoing vulnerability to disasters (Chua, K. K. T., 2014). This study would like to investigate the effects of typhoons to the ICT products and services rendered by the industries in the Philippines relative to economic growth of the country. Data were taken from the cloud through the World Bank website using its indicators and the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGSA) in relation to the number of typhoons entered the Philippine Area of Responsibility (PAR) from year 2001 to 2012. Data mining using cluster analysis was utilized to analyze the data gathered from the cloud. Lastly, a theory was generated based on cluster analysis in relation to the effects of typhoons into the ICT products and services and the economy itself.

Keywords: ICT, data mining, cluster analysis, climate change, economic growth.
E-Commerce Adoption Factors in Zanzibar: A Descriptive Study

Nurazean Maarop & Fuady Rashid Omar

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Jalan Sultan Yahya Petra (Jalan Semarak), 54100, Kuala Lumpur,Malaysia

nurazean.kl@utm.my

Abstract. Zanzibar is a developing country and consists of two islands namely Unguja and Pemba. The application and utilization of ICT has been an important effort for the country's economic development. Several studies have been conducted on E-commerce adoption but not yet in the case of Zanzibar. The objectives of this study are to explore the benefits of E-Commerce adoption and some relevant factors influencing the E-commerce adoption in the case of Zanzibar. The study considers several factors from Technological, Organization and Environment contexts to facilitate the understanding of the topic of concern. A questionnaire survey was conducted to collect data from 62 respondents in Zanzibar Town and the data were analyzed descriptively. The result shows that E-Commerce has benefited the users of the system. Based on the descriptive analysis, five main factors which are Level of Computerization, Education and Awareness, ICT Infrastructure, Government Support and Trust and Security are found to be important aspects in regard to E-commerce adoption. The finding will be useful for Government, Business Association and others who can utilize the research result for a successful E-commerce adoption.

Keywords: Technology Adoption, E-Commerce, Technology Use
Effective Route Planning In Road Networks Using Multi Constraint Routing Algorithm

J.Thirumaran Rathinam
Rathinam College of Arts and Science
Coimbatore, Tamilnadu, India.
maranjt@yahoo.com

Abstract: Today, applications that consider the cloggings brought about by congested driving conditions as of now exist. Amid hurry hour, it is basic that numerous blockages happen out and about system. On the off chance that the amount of congested roads is too huge, the radio stations that transmit TMC messages to the end client regularly just report the longest automobile overloads. Those applications utilize the Traffic Message Channel (TMC) method to figure a course around the blockage at whatever point the application gets a message around a congested road being available. The study for discovering the ideal most limited way on diagrams with nonnegative weights has taken numerous structures. The weights of a street system are generally either the length of the bends or the time it takes to navigate the curve starting with one vertex then onto the next. The recent relying upon the length of the circular segment and the velocity a vehicle is permitted to travel. The dominant part of course arranging applications utilize the briefest way as an equivalent word for the speediest way.

The Multi Constraint algorithm utilizes three exhibits to ascertain the briefest way. The first holds the neighbors of every hub. The second cluster stores the amount of neighbors every hub has, and the third holds the connection weights. In place for the calculation to work, the street system needs to have all these clusters accessible.
Cognitive Radicalism On The Internet: Strengthening Content Regulation To Combat Terrorism

Mohd Shazuan Md. Sidek & Mahyuddin Daud
Department Of Legal Studies,
Centre For Foundation Studies,
International Islamic University Malaysia
46350 Petaling Jaya
Selangor, Malaysia
shazuan@iium.edu.my

In this digital modern era, terrorist threats have evolved from common acts of suicide bombing to hacking of secured computer systems causing global panic amongst most established nations. Malaysia as a developing nation does not escape from this worry and faces difficult times to combat acts of terrorism particularly originating from the Internet. Efforts are engaged to curb this problem but appear inadequate in responding to issues at hand. Terrorist recruiters engage the new media to find ‘new talents’ and expands networking via YouTube, Twitter and Facebook. Social media is utilized to influence people and consequently spread the idea of radicalism in their mind prior to the actual conduct of terrorism acts itself. On the other hand, the policy on self-regulation of Internet content in Malaysia could be seen as driving factor to make terrorists plan smoother. Therefore, this paper aims to address four points which is first, to clarify the concept of radicalism, social media and networking based on the modern interpretation. Secondly, to explain how radicalism is developed cognitively by usage of social media as main platform. Thirdly, the paper shall briefly describe current laws and policies of Internet content regulation in Malaysia which arguably makes terrorists’ mobilization stress-free. Finally, it shall conclude by suggesting methods to improve Internet content regulation in Malaysia with the view to minimize potential radicalism which may lead to terrorism acts.
A Human Face Recognition Software Development Applying PCA

Mohd Noah A. Rahman, Armanadurni Abdul Rahman, Afzaal Seyal, Nursuziana Kamarudin

Institut Teknologi Brunei, School of Computing & Informatics, Tungku Link, Gadong BE 1410, Brunei Darussalam

noah.rahman@itb.edu.bn

Abstract. A wide range of studies were researched to explore numerous image processing technologies. A human face recognition (HFR) system is without exception, and is an ever changing and evolving domain which had improved relentlessly. It is widely known that a HFR is increasingly being deployed in a wide range of real world applications. However, the application of HFR system is not commonly used as opposed to other biometric identifications such as fingerprint or smart card verifications. A HFR system is developed based on the Principal Component Analysis (PCA) algorithm. It is intended to be used for a library verification systems developed on a stand-alone computer. It was been designed to retrieve data of the recognized students resided in the training database. To test the system performance, the experiment is conducted on 50 different students’ images. Finally, it concludes that although PCA approach is one of the legacy and well established feature extraction method, it can still deliver and produce high accuracy results.

Keywords: Face recognition, Eigenfaces, Principal Component Analysis, Biometric identification
An Improved SLM Technique For PAPR Reduction In OFDM Systems

A. A. A. Wahab, S. Lih

School of Electrical and Electronic Engineering
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Abstract. Orthogonal Frequency Division Multiplexing (OFDM) is widely used as a standard modulation for various high data rate wireless communication systems. It is worked by converting high data rate streams into a number of parallel low data rate streams. OFDM has many advantages over single carrier modulation systems. Some of these advantages are robustness to frequency fading channels, high transmission bit rate and high spectral efficiency. However, OFDM has its drawbacks. One of the main problems is high Peak-to-Average Power Ratio (PAPR), which brings disadvantage likes an increased complexity of system. Several techniques have been proposed in order to reduce PAPR. Hence, this paper presents Discrete Cosine Transform (DCT) precoded Selected Mapping (SLM) technique that is implemented to reduce PAPR of OFDM system. Simulation results show that implementation of DCT precoded SLM technique can reduce PAPR to about 1.55dB for 512 subcarriers and four selective data blocks at clipping probability of $10^{-3}$. From the simulation results, as number of subcarriers increases, PAPR value also increases. The PAPR reduction effect is improved with the increasing number of selective data blocks. Besides, the number of selective data blocks should also be chosen carefully as it affects the computational complexity of OFDM system.

Keywords: OFDM, SLM, DCT
Identification of File Integrity Requirement through Severity Analysis

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Abstract. File integrity monitoring (FIM) tool is used to mitigate integrity violation risk in an operating system and storage environment. The main challenge is to ensure the modification of related files can be detected as soon as the event occurs as fast detection can be vital to prevent further damage. However, issues on FIM is about the performance penalty result of real time monitoring. In order to minimize performance overhead, identification of file integrity requirement is proposed. Integrity requirement is important for determining the file monitoring approaches either in real time or offline. Although some of the FIM tools provide a hybrid approach of integrity monitoring, there have still required manual intervention of system administrator for system configuration in identification of specific files with its specific monitoring approach. This practice is a difficult task for system administrators and may be exposed to human error. This paper proposes the model of file integrity requirement based on file metadata information (file attributes) to assist system administrators in setting up monitoring approaches for specific files within the application system environment. The proposed model can be applied to the FIM tool and other file protection tool like anti-malware, backup and restore solution as part of the defence in depth strategy.

Keywords: File Integrity, Severity Analysis, Integrity Requirement.
The Trend of Researches in Digital Archives

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Abstract. Archives are extremely valuable parts of cultural heritage. Through various information technologies (IT), tremendous amount of digital archives (DA) are created and preserved. These archives are the critical for providing evidence in everlasting memory of human society. The management of digital archives becomes a fast growing field throughout last decade and introduces abundant articles in academic research area. However, the trend of researches in digital archives remains obscure in the academic community. To map the trend of DA research, this study uses Google Scholar as the source of articles for DA researches. 100 articles per year regarding DA research from 2004 to 2014 were collected as the base for analysis. In this study, text mining techniques, such as co-word and cluster analysis, have been deployed to investigate the trend of DA literature. The title, keywords and abstract of articles are used to count the frequency of noun terms. The noun terms in articles are isolated and their frequencies are accumulated. Besides the term frequency (TF), the term frequency–inverse document frequency (TFIDF) is also used to reflect how important the term is to an article in the collection. Only the nouns with high TFIDF and TF frequency are left. In co-word analysis, this study used the concept of association rule method to compute the count of two terms appearing simultaneously in articles. The frequency of two terms which appear simultaneously in articles represents their closeness. Therefore, we compute the amount of articles that each two terms exist as the co-word matrix. Finally, the co-word matrix of terms is aggregated into clusters by Ward’s method. Seven clusters of selected articles are elaborated as follows: Data and Information, Platform and Repository, IT and Lone-term Preservation, Information Interchange, Archival Science, Digital Archives Projects, and Electronic Records Management (ERM) and E-government. Concerning the distribution of terms and clusters, research articles in DA are more focused on technology than management issues. The findings of this study can help identify the research direction of DA research, provide a valuable basis for researchers to access DA literature, and act as an exemplary model for future research.

Keywords: Digital Archives, Co-word Analysis, Text Mining
Factors Influencing Customers’ Engagement In Social Media For Co-creation In The Fashion Industry Of Saudi Arabia

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Abstract. Many firms involve their customers in value co-creation through the use of social media sites that present unprecedented opportunities to connect these firms with their customers and offer a number of potential benefits. On the other hand, firms face the challenge of attracting customers. Based on the integrative structural model, this study proposed a model to clarify how social influence impacts customers’ co-creation experiences and also the perceived usefulness of the social media and perceived ease of use of social media. Consequently, these all influence the customers’ intention of future participation in co-creation activities. The findings may indicate that social influence has a positive effect on the intention to participate in social media for co-creation purposes, whether directly or indirectly, through affecting customer learning value, social integrative value, and hedonic value experiences, as well as through perceived usefulness and perceived ease of use.

Keywords: social media, co-creation, social influence, customer experience, TAM
Temperature Detection using Motion Information on Thermal Screening System for Flu Detection: A Brief Review

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Abstract. This paper presents a brief review of temperature detection using motion information on thermal screening system for flu detection. Past research also has proved and shown that the focus area to detect temperature is a medial canthal region - the angle or corner on each side of the eye as it is non-contact with temperature measurement. Operation mode in thermal screening for flu detection system is not suitable for each situation. Therefore, we proposed SmaCT, and it is about to design, create and implementation of Optical Flow algorithm by Horn-Schunck (HS) for detecting the febrile individuals in crowd using combination of effective approach with less dependent of human operators and eliminate queue to the stand still/ one by one screening method, thus, to detect symptomatic passengers at the early stages of a pandemic influenza.

Keywords: Temperature, Thermal image processing, Physical-based and Optical Flow-based approach.
Health Websites: Why It Is Difficult For Some Web Users?

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Abstract. Every day, it is estimated that millions of health-related internet searches had been conducted. Although this figure suggested that the public is getting more health-conscious, the emergence of health website that is in dubious quality should be worried. Web users search health information from websites to fulfill their curiosity of health knowledge, health treatments and health guidance. However, how web users evaluate the information they get from millions of health websites is a daunting issue. Misunderstanding and misinterpretation of health information will jeopardize individuals’ health and may cause an increase of mortality and morbidity rate if it is applied wrongly. While previous literatures have largely focused on the benefits and needs of health websites, there has been little attention given to resolve the issues related to health information. This paper reviews factors regarding the limitations of health websites that led to web users misunderstanding and difficulties of assessing the information. Articles published in English from 2000 to March 2015 were searched using several relevant databases. A combination of terms “health websites”, “e-health”, “difficulties” and “limitations” was used as the keywords combination. Twenty five articles were selected based on their useful contribution to the paper. User background, use of terminology, trust issue and indexing by search engine are among a few factors that influence health websites understanding. Conclusively some recommendations are made on how the limitations could be overcome and thus improved the health websites for the benefits of web users. The result of this paper can be beneficial to those who involve in health website, e-health and other health related web development. This paper offers these key people knowledge on web users’ problems and difficulties. The result of this paper may motivate other researchers to studies on how each limitation can be overcome. Further studies are in need to improve the quality of health websites which its demand is increasing.

Keywords: health websites, online health information, health literacy

Paper ID: IT 024
An Optimized Neuro-Fuzzy Network based Image Denoising Techniques

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Abstract. Neuro-Fuzzy (NF) system is used in various field of research. Neuro-Fuzzy systems combining neural networks and fuzzy set theories can be employed as powerful tools for the removal of impulse noise from various images. Neuro-Fuzzy system is based on a fuzzy system which is trained by learning algorithm derived from neural network theory. The learning procedure operates on local information, and causes local modifications in underlying fuzzy system. Image noise is random (not present in the object image) variation or brightness or color information in images, and is generally an aspect of electronic noise. It can be produced by sensor and circuitry of scanner or a digital camera. Images are often corrupted by noise during the acquisition or transmission process. The goal of denoising is to remove the noise while retaining as much as possible the important signal features of an image. Neuro-Fuzzy network based impulse noise filtering for gray scale images is presented. The proposed method is constructed by hybrid technique of Mamdani and Sugeno based fuzzy interference system approach followed by Optimized intelligent water drop (IWD) technique, Tuning parameter approach, Optimized fuzzy intelligence noise filter approach. As demonstrated by experimental results, Peak signal-to-noise ratio (PSNR) and Root Mean Square Error (RMSE) possess better performance. The proposed filter has some advantages over its competitors. The hybrid rule is applied to reduce the error of the optimization. In hybrid based fuzzy interference system approach, the system develops a fuzzy logic based scheme to filter a noisy signal. This can be applied in various sources to reduce noise. A one input and output Mamdani fuzzy interference system is designed for the filter where the input is a noisy signal and output is a filtered output. Fuzzy rules have been used to obtain the filtered output.

Keywords: Neuro-Fuzzy, image processing, hybrid technique.
Time Consuming Factors for Self-organizing Map Algorithm

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Abstract. Self-organizing map (SOM) has been used as a tool in data exploratory in data mining. The SOM is very useful to visualize and explore the nature of data especially for large datasets by reducing high dimensionality of data into low dimensionality of data. SOM is differs from other techniques because it has learning nature and consists of projection and quantization methods. Despite its excellent performance, there is a major issues related to its slow processing time. The SOM algorithm consists of steps such as initialize neuron weights, find best matching unit (BMU), and update the weights. These steps involve a lot of calculations where the calculation of complexity depending on the circumstances. Both internal and external parameters of the algorithms should be analyzed with the interest to find consuming factors in SOM processing. This paper will examine factors that may affect SOM processing through several experiments. The experimental results are analyzed by comparing with different parameters. Thus, this paper discusses some of the factors to be considered to improve the processing of SOM.

Keywords: Self-organizing map, visualization.
Improving the effectiveness of the dissemination method in disaster early warning messages

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Abstract. The dissemination of disaster early warning messages has a significant role in the effectiveness and serviceability in an Early Warning System (EWS). Providing the community in a disaster area with an adequate dissemination and communication of early warning messages will improve people's awareness and reaction to a natural hazard. People who live in a disaster area play a crucial role in the success of EWS. Malaysian, Sri Lankan, Bangladeshi and Indonesian authorities employ mobile phone applications, such as text messages (SMS), as a tool for disaster warning messages. However, there are many challenges in methods for disseminating early warning messages. One of the challenges is the dissemination method in which only notification messages are sent. In this paper, we propose \textit{confirmation} or \textit{verification} messages, as part of disaster early warning messages, by using text messages. Confirmation messages are messages that use a verification channel to provide up-to-date official information about the latest natural disaster conditions.

Keywords: disaster management, early warning messages dissemination, SMS
ICT Competency and Employment among Malaysian PWDS
(People with Disabilities)

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Abstract. Information and communication technology (ICT) skills have become basic requirements to compete in the labour market. However, persons with disabilities (PWDs) face difficulties in acquiring these skills. Thus, it contributes to the weakening of their competitiveness in the labour market. The main objective of this study is to identify the extent of the contributions of ICT in empowering Malaysian PWDs to compete in the labour market and get jobs. The study used both quantitative and qualitative approaches. Two hundred PWDs who are working in jobs related to ICT reported to a questionnaire. They represented institutions from both public and private sectors. In addition, two interviews were conducted, the first, with a unit of Manpower, Ministry of Human Resources, and the second with a non-governmental organization, headquartered in the state of Selangor. The most important findings of the study is that ICT plays a key role in empowering persons with disabilities in employment. However, the Malaysian government's efforts in empowering PWDs in the ICT sector are weak. The study also found that PWDs face financial difficulties in order to access sources of ICT which contributes to the weakening of their competitiveness in the labour market.

Keywords: ICT Competency, Employment, PWDs, Malaysia.
Information Security Awareness:
Case Study In Stock-Broking Company

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Abstract. Stock-broking company handled sensitive data or information of client’s financial instruments. However, lack of security awareness among staff who handle the client’s data has the potential to cause data breach or information violation. The study was conducted to determine the information security awareness among staff at a universal stock-broking company in Kuala Lumpur. The model of information security awareness was developed using the constructs confidentiality, integrity, availability and knowledge. The quantitative method using a set of questionnaire was performed. Eighty four respondents participated in this study. The results revealed that confidentiality, integrity and knowledge significantly related with information security awareness while availability not significantly related.

Keywords: information security awareness, confidentiality, integrity, availability, knowledge and stock-broking.
Knowledge Engineering Application In Facility Planning

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Abstract. Fragmentation of knowledge in construction industry has resulted in a situation where no single construction industry professional has all the knowledge needed to design a complex physical facility. Technical institutions are complex facilities which were planned and designed using an array of processes including the documentation of end user requirements in a Project Brief (PB) document. There is no framework for end user documentation process which leads to difficulties in preparation process of PB document for the use of knowledge-base planning of such facilities. A quality PB contains adequate and relevant information that support an architect at the early stage of designing. This difficulty leads to plans not well designed and optimized, and decisions on physical facilities specifications not fully supported. There have been studies that focussed on documentation process and methods of information gathering from client by the facility designer. However, the focus was not on the use of PB by the architects as a communication tool with the user clients. This situation has led the architect to produce an output that does not address the operational needs of the end user. As such, a research on documentation process of PB and knowledge organisation for the planning and physical facility specifications during the preparation of the PB document is needed. The objective of the research is to suggest development of a technical institution facility project briefing framework for coordination of institution’s facility planning document preparation. In this research, document search method, case study and interview were adopted to explore and understand the existing documentation process of PB as a basis for development of preparation process framework of documenting PB. The planning of polytechnic facilities in Malaysia had been used as cases in this multi-case study. Relevant knowledge reflect the operational strategic activities carried out in the facility to be developed. The methods employed and problems in the present production process of BP was explored during the process of document analysis and case study. The analysis of data uncover the weakness in the present production process of PB apart from recognising the elements suitable for the framework for production of PB document. These elements lead to the development of a new framework with the inclusion of taxonomy and ontology elements. The resulting framework comprised of processes for knowledge management, collaboration of planning experts and decision making.

Keywords: facility planning, knowledge management, collaboration, decision making
V-Syarah Hadis : Aplikasi Teknik Struktur Hierarki Cone Trees

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Abstract. Visulisasi Maklumat adalah satu proses perpindahan dan persembahan data. Proses perpindahan dan persembahan ini berlaku dalam bentuk visual menggunakan gambaran dan imej. Ia berlaku dalam bentuk penemuan data dan analisis melalui penerokaan visual (Fekete & Plaisant, 2002). Proses ini membolehkan pelbagai fungsi paparan dilaksanakan seperti memaparkan puluhan ribu objek dalam bentuk sebuah paparan sahaja. Saiz storan utama yang lebih besar dan pemproses yang laju menjadikan pelbagai jenis pemprosesan pada data yang besar boleh dilakukan. Oleh itu Visulisasi maklumat memberi tumpuan kepada pembangunan dan analisis untuk menyampaikan maklumat abstrak dalam bentuk visual. Kajian juga mengkaji kesesuaian teknik persembahan visual menggunakan struktur hierarki Cone Trees. Teknik persembahan pepohon peta (Cone Trees) ini memberi suatu kelebihan kepada persembahan secara visual dengan paparan maklumat yang lengkap. Oleh itu kesesuaian teknik ini digunakan dalam konteks pendidikan yang berbentuk kaedah ingatan dan hafalan dalam ilmu hadis. Ia membantu dalam pencarian maklumat yang lebih mudah dan cepat serta struktur capaian maklumat yang lebih sistematik. Dalam usaha membina modal insan dan penghayatan ilmu yang disampaikan khususnya kepada umat Islam, ianya memerlukan kepada usaha dan pembaharuan yang lebih inovasi dan kreatif seperti pembangunan perisian, penghasiran bahan-bahan rujukan alternative dan metodologi pengajaran dan pembelajaran yang lebih dinamik.

Keywords: Visual, struktur hierarki Cone Trees, Visulisasi Maklumat, Inovasi Maklumat Ilmu Hadis
Design and Development of Enhanced Algorithms to Identify Crime Zones Using Data Mining Techniques

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Abstract. Clustering are popular data mining techniques which are intended to help the user to discover and understand the grouping of the data in the set according to a certain similarity measure and predict future structure or group respectively. Two well-known clustering techniques, namely, K-means and DBScan (Density-Based Spatial Clustering Application) algorithm are considered. For each type of crime the results of the clustering process are used to identify crime zones. The various locations were grouped as high crime zone, medium crime zone and low crime zone. In this paper two algorithms K-Means and DBSCAN algorithms are enhanced to identify the crime zones.

Keywords: Clustering, K-Means, DBScan and Crime Zones.
Awareness Level towards the Validity and Reliability of Electronic Information among Students

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Abstract. Landscape of delivery and dissemination of information has changed drastically with the development of electronic communication technologies. Now, the electronic media is one of the main sources of information for youth. The nature of electronic media, which more open and easily accessible making it quick and widespread medium of dissemination. However, freedom in the dissemination of information electronically creates a big issue which is on the validity and reliability of an information, whether the source or content of the information itself. With high dependency on electronic media, information dissemination about something that is not authentic will certainly have negative implications. The information is intended to revolve around political, economic, social and religious. Even worse, when there are youth that influenced by extremist groups such as the group of the Islamic State (IS) in Syria that use electronic media as a medium to influence people. This paper discusses a study on the level of awareness of student on electronic media that focuses on the reliability of the online information on the Internet. The main issues discussed include awareness of the law or act relating to electronic communications and information security, relation of the communication technology to the spread of information, agency or authority responsible for dealing with issues involving electronic media, the reliability of an information from the perspective of Islam and their role as students, da’e (preacher) and technologist to confront issues involving electronic media. This research conducted with 23 students of public universities that are exposed and accessed to information electronically. The respondents are involved, students with a background in Islamic studies and information technology. A case study was given to the group of students to improve their awareness of the importance of validation and reliability of the information obtained. After examining the case studies, the level of awareness of students on the issues is expected to increase compared to before the case studies are given. This study is not only to raise awareness of youth on the key issues raised in respect of the reliability of electronic information, but is also expected to provide a new paradigm for the respondents and disseminate their knowledge to others in line with their role as techno da’e.

Keywords: Information dissemination, reliable information, integrity of information, awareness, cyber law.
Information Society, Right to Information, and the Challenge of Digital Preservation in India

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Abstract. Operation of the Central and State laws on right to information in India is integrally related to effective management of government records and information. This article makes a critical analysis of public records management in India, especially digital preservation, in the context of execution of central law on right to information in India—the Right to Information Act (2005). In particular, it makes a case for turning the gaze of all the stakeholders in the right to information movement to one of most significant, but neglected, legislation dealing with preservation, management, and organization of the records (including digital records) of the Central Government, the Public Records Act (1993). It emphasizes that in spite of a growing realization about the vital importance of the digital records and the imperative need for their management, the ground reality in government office shows the stark contrast between principle and practice. In the context of multi-disciplinary nature of the problem this paper seeks to address the vital problem of long term digital preservation of records in India. Digital preservation is a pioneering area of research in archival science and in India only a few researchers have taken cognizance of this although India boasts of the best collection of archival and documentary heritage. If the documentary and archival heritage of India is not preserved then there is a fear that we may pass into a 'digital dark age' and entire heritage will be lost to posterity. This issue becomes even more significant in the context of 'Digital India' initiative of the Government whereby the digital technology is slated to be the pivot of Good Governance. As such, it is argued that the concern must shift from paper based records to 'burn' digital and born digital records.

Keywords: Information Society in India, Public Records, Records Management, Digital Preservation, Right to Information,
The IPv6 Human Capacity Development Program for Public Sectors in Malaysia

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Abstract. In order to remain an important part of the global Internet and to benefit from its growth, Malaysian organizations such as Government agencies, Internet and content service providers, and enterprises must embrace the transition to the new Internet Protocol version 6 or IPv6. The key to a successful transition is the readiness of human resource in adopting and adapting the new Internet technology. The KTP IPv6 Project attempts to assist Malaysian public sectors in building their human capacity in IPv6 technology. The initial aim of the project is to train some 500 public sector ICT staff to familiarize and possible to certify them on the IPv6 technology. The internal training for trainer program started in April 2012 until end of August 2012. Besides that, this training was extended to train a group of external trainers from Politeknik Sultan Azlan Shah (PSAS) in Behrang, Perak. The PSAS trainers successfully completed their training and passed the locally-developed certification program called the Certified InterNetWorks Professional in IPv6 (CIPv6). Collaborations with government ministries, various state governments, local agencies and statutory bodies such as MARA and LHDN, as well as educational institutions such as universities, polytechnics and matriculation colleges have resulted in a series of training sessions which spanned until end of June 2014, with a total of 803 public staff participants, making an average of 80 participants trained per month. In addition, a survey has been conducted to evaluate the impact of the IPv6 human capacity development program for public sectors in Malaysia.

Keywords: IPv6, Internet protocol, human capacity building, IPv6 transition
Challenges in Managing the ERP Implementation: Case Study on User Requirement Stage

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Abstract. Since the early 1990s, many organisations around the world have shifted their information technology (IT) strategy from developing information system in-house to purchasing off-the-shelf software, such as Enterprise Resources Planning (ERP) system. Organisations decided to invest on ERP system due to the pressure to cut costs, pressure to produce more without increasing cost, and improve the quality of services or products for business sustainability. ERP relies heavily on database in order to store and retrieve large amount of data. It includes financial management software that integrates information related to finance, manufacturing, sales, services, customers, among others. Previous research shows that not all organisations have successfully implemented an integrated system across business activities that would impact the revenue or liabilities of the organisations in a single package. However, numerous studies mentioned the success of ERP in improving the productivity and efficiency of the company performance. Despite that, there are still factors that account for failure of ERP system implementation, such as poor planning, management changing the business goals during project, and lack of business management support. In a case of an education provider firm that is in the process of implementing an ERP system, problems are foreseen in terms of communication breakdown between the vendor and the user. Drilling in the challenges of ERP system implementation in the case organisation, this research intends to apply the concept of Get-Understand-Share-Connect (GUSC) Model, which is derived from the personal knowledge management framework, to formulate the issues pertaining to the delay in finalising the user’s requirements of the system – the stage where the root cause happens. In the focus of user’s involvement in ERP system implementation, the users’ and vendors’ ‘personal knowledge’ are being investigated, since the gap is found to exist between the two. This paper presents the preliminary findings on the challenges of implementing an ERP system in a Malaysian company, by using the GUSC Model to unfold the root cause.

Keywords: Enterprise Resources Planning (ERP), business management support, personal knowledge management, GUSC Model.
Measuring IPv6 Performance in a Newly Deployed IPv6 Campus Network

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Abstract. The implementation of IPv6 in dual-stack environment at Universiti Utara Malaysia campus network has been done successfully but how it performs compared to IPv4 has yet to be measured. A study on the performance of IPv6 network has been done to measure this performance. The study employed a simple performance measurement/testing using ping to a number of IPv6 enabled web servers. The RTT of the ping packets for both IPv4 and IPv6 is compared to see the performance of IPv6 network compared to IPv4 in a dual-stack environment. The study has found that the IPv6 network performance is slightly worse than IPv4 due to some reasons. This paper discusses some of the findings.

Keywords: IPv4, IPv6, Internet Protocol, RTT, dual-stack, hop count
Emerging Trends of Information and Communication Technology among Teachers and Students at Tertiary Level

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Abstract. The study aimed to explore the emerging trends of Information and Communication Technology among teachers and students at tertiary level. Major objectives of the study were to find out the availability of Information and Communication Technology for teachers and students in universities and to investigate the problems faced by teachers and students in accessing Information and Communication Technology. For this purpose stratified random sampling technique was used. Teachers and students of two leading public sector universities located at Islamabad (National University of Modern Languages Islamabad and International Islamic University Islamabad) were selected as a population. Data were collected from the departments of social sciences: Departments of Education, Mass Communication and International Relations through personal visits. The findings of the study revealed that ICT facilities are not available for students. Teachers and students of both universities were agree for the fact that ICT tools are not accessible for them easily. The study tried to catch the attention of educational administrators and planners towards the existing condition of ICT at tertiary level and emerging trends of ICT and its existing functioning which will guide them in taking decisions at various stages.

Keyword: Use of ICT, Availability, problems, Skills, Tertiary Level
Factors Affecting Libyan Citizens In Adoption Of E-Government Services: A Research Framework

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Abstract. In the 21st century, many countries are providing services to their citizens using the internet. One of the main reasons is that these services can be reached by majority of the citizens whether they are living in rural or urban areas. 179 out of 192 United Nations members reported that they have developed strategies to implement e-government systems. In countries such as Libya, where the population is spread over a large geographical area, the need to deploy services via the internet is very evident. However, since the implementation of such deployment would be very expensive, its success is very important to ensure continued investment and improvements. This is particularly important in the context of Libya, where e-government is a newly implemented innovation. Therefore, it is axiomatic to study factors that could facilitate or undermine the adoption of e-government services in Libya. One of the most important factors for the success of e-government is the extent to which citizens adopt these services. The objective of this paper is to explore factors influencing e-government services adoption by citizens in Libya. The paper discusses the development of a conceptual framework. The findings presented in this paper could benefit the Libyan e-government stakeholders in their efforts to implement it.

Keywords: adoption, citizen, e-government, libya, technology acceptance model.
User Readiness Evaluation of QR Codes in Mobile Learning (m-Learning)

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Abstract: Mobile devices have transformed from the only communication tools to a mobile learning (m-learning) tool. One of the m-learning environment is the incorporated Quick Response (QR) code. QR codes are only two dimensional barcodes used to encode and decode the information. The information embedded under these codes can be URL links, SMS, text and number. The main objective of this paper is to analyze the readiness of QR code usage via m-learning. A survey questionnaire is designed with a five point Likert scale. Fifty four in-service teachers from the Institute of Teacher Education in Malaysia were involved in the data collection process. Then, the data were collected using questionnaires and analyze with SPSS19. The result shows that 89.9% of the teachers are eager to get involved with m-learning. Besides that, 88.9% of them are aware that QR code can be used in their teaching and learning process. We suggest that QR codes should be embedded in our education system as a medium of mobile learning.

Keywords: mobile learning, QR Code, readiness, in-service teachers
A Review of User Experience (UX) Frameworks for Educational Games

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Abstract. User Experience (UX) is a part of Human Computer Interaction (HCI) and have been a topic of discussion among the researchers in current age. UX research is vital to understand how users react or experience with a particular system both from users and systems perspectives. This study explore about the UX design of educational games (EG). Educational games have attracted many researches due to its popularity among the younger generation. However, its consumption among students and schools are still very much lacking. Thus it is important to understand the design issues that may contribute enhancement of user experience while using the applications. This initial study review and discuss several UX frameworks for the purpose of educational games UX design evaluation. Knowledge of UX design for EG will benefit the games designer for helping them design a better game.

Keywords: User experience framework, educational games, games
Penggunaan Perbankan Internet dalam Kalangan Staf Akademik KUIS

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\textbf{Abstrak.} Perkhidmatan perbankan Internet di Malaysia telah menjadi salah satu daripada perkhidmatan perbankan yang digunakan secara meluas di kalangan rakyat Malaysia. Mana-mana institusi perbankan masa kini yang masih belum menawarkan perkhidmatan perbankan Internet, sangat perlu mempertimbangkan untuk mewujudkan jenis perkhidmatan ini di institusi mereka. Artikel ini mengkaji mengenai tahap penggunaan perbankan Internet di kalangan staf akademik di Kolej Universiti Islam Antarabangsa Selangor (KUIS). Kajian dijalankan dengan menggunakan soal selidik yang telah diedarkan melibatkan 96 orang staf akademik KUIS. Hasil kajian mendapati bahawa 97.9\% responden (94 orang) maklum akan kewujudan perkhidmatan perbankan Internet dan 74\% daripada mereka (71 orang) pernah menggunakan perkhidmatan perbankan Internet.

Keywords: Perbankan Internet, perbankan atas talian, keselamatan maklumat, privasi, transaksi.
The Synergy of QR Code and Online Screencast Video for Ubiquitous Basic Statistics Learners

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Abstract. This study aims to test the usage of quick response code and screencast video tutorial as a mode of teaching that supports ubiquitous learning. However, a proper medium of instruction and guideline that support this mode of learning are needed. Two dimensional barcode technology is capable to access to online screencast videos inside and outside class. The online screencast videos are produced by capturing the movements of the pointer on the screen. Therefore, these videos are used to scaffold students in learning basic statistics concepts. When scanning the code with a mobile device, the URL of the website is automatically opened in the browser and users are directed to watch only related video for the particular courses. A sample for this study is a group of 19 trainee teachers from the Institute of Teacher Education, International Language Campus in Kuala Lumpur, Malaysia. This paper includes a report of a usability test which used a five point Likert scale. A questionnaire for this usability test consists of four constructs: learnability, efficiency, attitude and flexibility. The results demonstrate that 91.8% of the trainee teachers agree that the combination of the qr code and screencast video are an efficient tool for enhancing student learning basic concepts of statistics. Hence, educators should implement this learning tool to enhance their teaching and learning process.

Keywords: qr-code, u-learning, screencast video, basic statistics, usability test.
Building Information Modelling: Proposed Adoption Model For Quantity Surveying Firms

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Abstract. Building Information Modelling (BIM) represents the formation, utilisation and sharing of digital models between key stakeholders during the lifecycle of a facility. Academics and practitioners alike have advanced the idea of embracing BIM within the construction industry. Abundant of reports illustrating the benefits of BIM when deployed within design and construction phase such as better enhanced designs, more efficient construction processes, effective collaboration, cost and time savings. However despite receiving massive attention within the AEC industry, it appears that the adoption rate is not portraying such phenomenon. Inconsistency of adoption rate exists not only between countries but between industry key players as well. Surveys conducted showed that Quantity Surveyors (QSs) are among those who are least adopting BIM. Literature reviews reveal limited studies have been undertaken to investigate the key factors influencing BIM adoption in general, and among QSs specifically. As a result, this paper presents a model of BIM adoption factors based on the amalgamation of Technological-Organisation-Environmental framework, Diffusion of Innovation theory and Institutional theory.

Keywords: Building Information Modelling (BIM), Information Technology (IT), Adoption Model, Quantity Surveyor (QS)
Dynamic Edge Detection Method using Improved Ant Colony Optimization

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Abstract. In the field of Image Processing, the first step taken in processing complex images is to reduce the image to the most basic form while retaining information needed for further processing. This is where Edge Detection techniques are needed; to extract necessary information from images, while reducing the complexity and time needed to process each image. With the new meta-heuristic swarm algorithm of dynamically performing modified Ant Colony Optimization System; the existing Ant Colony Edge Detection can be further improved.

Keywords: Image Processing, Ant Colony Optimization; Edge Detection.
Optimal Clustering Using Modified Fuzzy C-Means Clustering Algorithm

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Abstract. Fuzzy clustering has been widely studied and applied in a variety of applications and areas. In hard clustering, data is divided into distinct clusters, where each data element belongs to exactly one cluster. In fuzzy clustering, data elements can belong to more than one cluster, and associated with each element is a set of membership levels. These indicate the strength of the association between that data element and a particular cluster. Fuzzy clustering is a process of assigning these membership levels, and then using them to assign data elements to one or more clusters. The investigation is needed to reveal whether the optimal number of clusters can be found on the run based on the cluster quality measure. The silhouette coefficient is the one of measure used to measure the quality of clusters. In the practical scenario, it is very difficult to fix the number of clusters in advance. In this paper we propose a optimal clustering of data with modified Fuzzy C-Means algorithm. The proposed method works for both the cases i.e. for known number of clusters in advance as well as unknown number of clusters. The user has the flexibility either to fix the number of clusters or input the minimum number (K=2) of clusters required. In the former case it works same as Fuzzy C-means algorithm. In the latter case the algorithm computes the quality of clusters for each set of clusters. The process is repeated by incrementing the cluster counter by one in each iteration until it satisfies the validity of cluster quality. It is observed that the modified Fuzzy C-means algorithm produces quality clusters compared to the Fuzzy C-means clustering. It assigns the data point to their appropriate class or cluster more effectively.

Keywords: Fuzzy C-means clustering, cluster quality, Silhouette coefficient.
Factors Affecting the Acquisition of Expert Tacit Knowledge

Case study: Delivery time in Twin Pregnancy

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Abstract. This paper discovers the necessary variables need for creating models for tacit knowledge acquisition, especially in medical care services. The case studied here, was knowledge of diagnosing and time of delivery in twin pregnancy with nuchal translucency screening. This paper covers the empirical work undertaken on semi-structured interview based on thematic analysis. With regard of theoretical sampling, six university-based participants (three experts in medical science and three knowledge engineers) for the study were selected. Content analysis shows that 20 variables are related to tacit knowledge acquisition. They are categorized in 6 main groups: (1) Knowledge types (2) Knowledge acquisition techniques (3) Environment characteristic (4) Expert trait (5) Knowledge engineer trait and (6) Value chain, are major themes for modeling tacit knowledge acquisition. Kendall’s indicator used to assess the degree of consensus. Literature reviews indicate no integrated research has been done about tacit knowledge acquisition especially in medical service. So it is necessary in order to identify factors affecting tacit knowledge acquisition for further modeling all in once.

Keywords: Thematic analysis, Knowledge acquisition, Expert, Delivery time, tacit knowledge
Detecting Command and Control Traffic Using Botnet Correlator Module

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Abstract. The proliferation of malicious Command and Control (C&C) servers or botnets is a very big security issue in the Internet today. Triggering malware can be found in most known, popular and visited websites. Any user who is tricked in clicking something interesting (usually an advertisement) is redirected to a malicious website or unknowingly forced to install a malware that makes them a victim (also known as zombie). When a lot of users have been victimized, malware is stored in their computers in stealth mode. When thousands or millions of computers are infected, the leader can order all infected machines to do something malicious like attacking servers to cause Distributed Denial of Service (DDOS) and other attacks on confidentiality. Only in 2013, the FBI discovered millions of machines were infected by a botnet called Citadel. The agency was able to shutdown the server leaving the victims still infected. Anti-virus and firewall solutions are defenseless in this type of attacks because botnets cannot be prevented using rule-based and signature-based solutions. The Botnet Correlator Module (BCM) is a mobile and powerful tool used to determine presence of active C&C activities in a Local Area Network (LAN) topology. It is capable of reading the most updated C&C knowledgebase from reputable sources and correlating it with Intrusion Detection System (IDS) rules as a detective control. The module loads the C&C information to the firewall as primary preventive control and consolidates traffic for further analysis and incident response.

Keywords: botnet, bots, zombie tracker, botnet detection
Social Media for Flood Risk Management: 
A Study on the Use of Facebook by the First Class Municipality of 
Cainta, Rizal, Philippines 

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Abstract. Facebook, being the favorite social medium of Filipinos, hosts millions of demassified Filipino online communities just waiting to be tapped by Philippine local governments for improved governance and public service. These online communities are “virtual gathering spaces” where members turn to for information seeking and sharing, to seek help and support, and to offer help where possible like what members of real-life communities do. This study looked into the use of Facebook for flood risk management by the first-class municipality of Cainta, Rizal during the onslaught of typhoon Mario on Sept. 19, 2014, which caused town-wide floods and displaced 5,300 families. The use of Facebook for flood risk management in Cainta is not institutionalized and the online community belongs to the town mayor. This, however, did not undermine the remarkable role Facebook played in the dissemination and crowdsourcing of hyperlocal yet high-value risk information within the week the town-wide flood. Facebook became the main communication platform used by the town for its dissemination of risk information such as advisories on rainfall, typhoon, floods, road conditions, class and office suspensions, as well as on emergency response updates. Acting as individual nodes of the online community, the residents also helped in the dissemination of risk messages by sharing to their respective online communities. Facebook became useful in gathering risk information from the ground as citizens were able to send flood reports which helped the town’s disaster team to create a clearer picture of the disaster. Citizens were also able to inform the government of the specific help they needed in real time such as cut power, boat for rescue, ambulance for sick person, cooked food, and emergency parking spaces. Social media feedback – posts, comments, shares, tags and likes – spiked significantly during the flood disaster indicating residents’ heightened interest and participation during a calamity in order to satisfy their social interaction/integration and surveillance needs. Facebook, being a multi-way communication platform, also enabled the residents to participate in conversations, transforming the online community into a modern day agora, a virtual town hall meeting place for the people of Cainta. 

Keywords: Flood Risk Management; Risk Management for Local Governments, Facebook for Risk Management, Facebook for Local Government Units, Local Government and Online Communities.
Perkembangan Aplikasi Mudah Alih Dalam Penyebaran Dakwah Islam

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Keywords: Perkembangan Aplikasi Mudah Alih, Aplikasi Mudah Alih, Aplikasi Mudah Alih Dalam Penyebaran Dakwah Islam, Perkembangan Aplikasi Mudah Alih Dalam Penyebaran Dakwah Islam, Aplikasi Mobil Dalam Dakwah, App Dalam Dakwah.
Keberkesanan Penggunaan ICT Dalam Pengajaran Dan Pembelajaran Pendidikan Islam
Bagi Sekolah Kebangsaan Desa Pandan Kuala Lumpur

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Katakunci: ICT, pendidikan ICT
Performance Profile Comparison Using Matlab

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Abstract. Performance profiles are commonly used by researchers nowadays for the method efficiency comparison in optimization. This paper shows how to use Matlab software for the performance profile comparison in optimization. The optimization method that was selected in this paper is quasi-Newton method.

Keywords: performance profile, optimization, quasi-Newton, Matlab
Pembangunan Aplikasi Mudah Alih: Ratib Al-Attas & Terjemahan

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Kata kunci: aplikasi mudah alih, pembangunan aplikasi

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Abstract. Higher education institutions all over the world face great pressure to improve the value in its activities especially with the introduction of new technologies. The objective of this study is to understand LMS behavioral intention to use among students. Specifically, this study aims to adapt 3-TUM and incorporates instructor quality as a factor that influences students’ behavioral intention to use LMS. An empirical study was conducted through an online survey. Data collected from 119 students were analyzed using structural equation modeling. This study concludes that the applied model was shown to be fairly useful in the context of the study of LMS use. The results from the study reveal two major findings. First, students’ perceived satisfaction plays an important part in predicting students’ behavioral intention in the context of LMS. Secondly, instructor quality was a significant predictor in understanding students’ perceived usefulness. The study suggests that in the context of LMS, there is a need to utilize attribute-specific perception antecedents to obtain meaningful explanations.

Keywords: E-Learning, Instructor Quality, Satisfaction
The Utilisation of Visual Elements on Interface Design of e-learning.

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Abstract. The quality of e-learning in term of presentation of interface design has been discussed among researchers. The focus has been on the quality of graphics and how useable the interface to the user. This paper highlights on the visual elements of interface design which involve the development of navigation button and structure. The elements of text, graphic, shape and colour play important roles to make the interface attractive and useable. Each of the elements can give different impact on interface design development. The understanding about these elements will help designer to produce a good interface design which will also affect the user to use the programme. The application of symbol and icon on navigation button can create aesthetic visual but how useable it is to the user, can they understand the meaning of each symbols if there is no label attached to it? This research will attempt to answer the question. The semiotic theory which involves semantic study is also included for researcher to understand the relation between sign and meaning, the denotation and connotation of symbols. It is essential to know the user perception as e-learning is user-centred.

Keywords: Visual Elements, Interface Design, e-Learning.
Reka Bentuk Dan Pembangun Komik Digital Interaktif Dalam Pendidikan

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Keywords: komik digital, pendidikan, interaktif, multimedia
Modelling an Information Transfer Model for Police Reporting In Malaysia

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Abstract. Information nowadays has become an important factor either in learning or working systems. Therefore, information needs to be well managed to ensure the effectiveness of the communication between stakeholders. For example, when a complainant lodge a police report, the information will transfer between several roles in the police unit. The report contains important information and need to reach the investigator as soon as possible. The purpose of this study is to articulate information have been transferred within police organizations once a report has been lodged. There are five factors involved; role, content, time, medium and filing. The output of this study is a model of the five factors that can be implementing in the police reporting processes specifically on document or information transfer. The model will lead the police officers to use the time, tools and resources effectively from the moment complainant lodge a report until how the data will be stored and reach the other police officers to take further actions.

Keywords: Police report, information transfer, information modelling.
Model Pembelajaran Aplikasi Android “Jamak Qasar Apps” Berasaskan Elemen Multimedia

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Katakunci: Aplikasi android, multimedia, solat jamak qasar.
The Development of Farm Management Information System for Smallholder Farmers in Malaysia

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Abstract. This paper introduces the process of developing web application of farm management information system (FMIS) for smallholder farmers in Malaysia by using rapid application development (RAD) prototyping methodology in information system research design. The web application requirement determined through extraction process using physical data-driven design system from Malaysia Good Agriculture Practise (MyGAP) physical forms. Additionally, the functions and features of the system were determined through several questionnaires which were distributed to 209 smallholder farmers located in Taman Kekal Pengeluaran Makanan (TKPM) in Selangor. Selangor agricultural area together with smallholders farmers were chosen as respondent because Selangor is the highest internet penetration state in Malaysia. Subsequently, the design and analysis of FMIS are constructed by us including the database design, data flow design, system flow design and software development which was validated by two other experienced system analysts. The software development process were using PHP web development tool called Scriptcase version 8 which were taking less than 2 months to be completed. Furthermore, we also made a comparative study of an existing system available in the market to give additional competitive value to the new development of FMIS in Malaysia. The final developed FMIS is accessible through the official MyAgris website.

Keywords: Farm Management Information System, Prototype Development, Application Requirement, Good Agricultural Practice.
A Theoretical Framework of Procedures Contain Random Walk Methodology in Various Field of Data Mining and Distributed Computing

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Abstract. The concept of Random Walk begins from Social Science and enters into many fields of today like Computer Science, Financial Analysis, and Economics etc. Theory of Random walk is very flexible to understand but at the same time the ambiguity arises to use the same. This paper reflects the use of Random Walk concept in numerous field of Computer Science; it shows that how differently their concepts use in Sensor Network and in the field of Data mining. This paper mainly focused in Random Walk model in Graph based algorithm and shows how it has been used for improving result of previous algorithms and methods given for that particular technique. Mainly, concepts of Data mining which summarized in this paper are Outlier (Isolation Detection) and Clustering (Similarity Detection) which are more prominent research topic in this field. Also, the concept of Target set selection and mobile data gathering in large scale wireless sensor network. Numerous techniques have been developed to these both concepts but the purpose of this paper is to discuss and evaluate algorithms based on Random Walk for specified above methods and their comparison with previous techniques.

Keywords: Random Walk on Graph, Personalized Page Rank, iWander, OutRank.
Pembinaan Karektor Pelajar Kreatif Melalui Program Stem Ukm

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Kata kunci: Kreativiti pelajar; Ilmu pengetahuan; Gaya berfikir; Personaliti ; Motivasi
Automatic Racket-Based Ball Dropping Point Analysis System

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Abstract. This paper introduces depth-slicing technique (DST) to detect and analyse dropping points of the ball for racket-based sports. Conventionally, dropping points of the ball is detected and recorded manually either on the spot or through sport video. As such, those approaches are very tedious and time-consuming. Furthermore, the detection of the dropping point is very subjective to human’s judgement. There are different methods to obtain information for ball dropping points, but our major emphasis is on DST, which represents the object surface as points of cloud and are analysed based on a distribution map. In our research, sliced depth map sequences where the depth interval, also known as “interval of interest” which is just above the ground is captured using cost-effective RGB-D sensor, namely Microsoft Kinect sensor. With such implementation, the dropping points of the ball can be easily detected and stored. The racket based sport dataset that collected in this research is tennis. The data is statistically analysed by performing different experiments and results are obtained by a graph plotting. Conclusions are drawn from these results in order to enhance athlete’s performance.

Keywords: Depth Slicing Technique; Distributional Data; Kinect.
Study Of Factors Affecting The Risk Reduction In The Use Of Electronic Banking

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Abstract. This study examines the factors affecting the risk of new devices such as ATM banking, receive, VTM, exchange money has been paid. In this study, we evaluated the performance of 4 units, the average estimated time of adoption of new devices, indicators of risk in the use of these devices is predicted. The study population included 650 people who have used these devices to do their banking transactions. Data collection in this research, is interviews and use the questionnaires. The dependent variable in this study is reduced the risk of using the money back and transaction failed security, the use of machine instructions and brochures, media advertising, the appearance, the bank credit in relation to the banking system and the experience of other similar devices is the independent variables. Demographic variables such as education, literacy, income, age of the person using the methods of statistical analysis of the correlation variables were analyzed. The obtained results show that the highest correlation between the bank and have experience using a similar recipe and easy to use devices, advertising media, the bank credit system appears to have the highest correlation with reduced risk of use. Among the demographic variables of age, people using significant relationship between the level of education there.

Keywords: electronic banking, demographic analysis
Function Creep in Surveillance Techniques: Factors and Ethical Issues

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Abstract. Surveillance practices have benefits. The surveillance gadgets are used for security purposes, making it easier for the security personnel to determine who, at what time and how an incident happened. However, surveillance practices have raised issues related to privacy. The government may use the surveillance gadgets to spy on the users. The information recorded by or on the various modes of surveillance can be compiled, disseminated at a high speed, and low cost. In the wrong hands, the information may be used in wrong ways that infringe on people’s security and privacy. Function Creep has greatly harmed the privacy and has resulted in segregation and isolation among different social classes. Why and how it happens, what its implications on the society are and what possible solutions can be used to control it has been discussed in this paper.

Keyword: Surveillance, Data Mining, Privacy, Security, Dataveillance, Function Creep
Kesan Permainan Digital Dalam Pendidikan

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Keywords: Permainan Digital, Pendidikan, Teknologi Maklumat dan Komunikasi
Measuring IPv6 Performance in a Newly Deployed IPv6 Campus Network

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Abstract. The implementation of IPv6 in dual-stack environment at Universiti Utara Malaysia campus network has been done successfully but how it performs compared to IPv4 has yet to be measured. A study on the performance of IPv6 network has been done to measure this performance. The study employed a simple performance measurement/testing using ping to a number of IPv6 enabled web servers. The RTT of the ping packets for both IPv4 and IPv6 is compared to see the performance of IPv6 network compared to IPv4 in a dual-stack environment. The study has found that the IPv6 network performance is slightly worse than IPv4 due to some reasons. This paper discusses some of the findings.

Keywords: IPv4, IPv6, Internet Protocol, RTT, dual-stack, hop count
Towards Sustainability in Resource Sharing: A Game Theory Approach

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\textbf{Abstract.} Over-exploitation of present renewable resources has an impact on future generations unlike in traditional community relationship. Present generations maximize their pay-off by exhausting the resources. However, this minimizes the total pay-off of all generations as a whole. The failure to cooperate with future generations is mainly championed by a few. What policies can aid sustainable inter-generational resource usage? How can this few be deterred from over-exploitation of the present resources? How can those willing to cooperate be encouraged by guaranteeing sustainability? And can all these be achieved without a central authority? Some researchers proposed voting to solve these problems. However, this has a clear limitation in that it must be binding on all for it to work thereby necessitating the need for central authority. In this study, a reputation based model is proposed instead of voting. The model evaluates the reputation of agents based on their willingness to cooperate with the future. The agent's reputation defines other agents it interacts with in the society. Hence, cooperators tend to relate with fellow cooperators and are better off while defectors are worse off. It is shown that reputation is a viable alternative in the attainment of a sustainable society. However, this is only applicable for sustained interactions between the agents.

Keywords: Prisoners’ Dilemma, Evolutionary Games, Game Theory, Resource Sharing
Multicast File and Screen Sharing using Wi-Fi Connectivity

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Abstract. In this study, File Sharing is the act of distributing files such as music, movies, documents, photos, or games to other device over the internet. Screen Sharing enables user to share desktop content from our mobile to other people’s device. File and screen sharing mobile application is designed and developed in order to address the issues regarding slow process, vulnerable to data corruption, and inability to broadcast file. It can be accessed to any devices such as Android, IOS, and Windows. By using the app, time and effort can be saved in transferring file using Wi-Fi since Wi-Fi can transfer over long distances between two devices. Based on thorough analysis and results, it is concluded that the application improved for a better and simple way to share files and screen to any device. Using the application, user can now share files with a faster rate, protect data from corruptions, and capable to broadcast file.

Keywords: Bandwidth, File Sharing, Screen Sharing, Ad hoc Network
Fixed Points On Two Classes Of Finite Groups

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Abstract. The NG-groups is groups which consisting of transformations on a nonempty set A and the group has no bijection as its elements. In this paper, we consider The NG-groups by using fixed points.

Keywords: finite groups, symmetric groups, Fixed points.
The Design of The Laboratory Exercise Using Virtualization Technology For A System Administration Course

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Abstract. System Administration is a field that demands understanding in computer and network system such as operating system, application, networking, hardware, security and troubleshooting technique. Real-time and hands-on practical exercise will give students the opportunity to apply and integrate system administration skills they have learned during lecture class. However it is impractical and expensive to setup a dedicated and conventional hardware based lab especially for institution with limited monetary budget. The alternative way of teaching Linux System Administration course is Virtual Based Lab where specific tools are used to represent real IT infrastructure. The Virtual Laboratory (VLAB) project was initiated at Kolej Universiti Islam Antarabangsa Selangor (KUIS). The main aim of this project is to develop a laboratory exercise using virtualization technology for System Administration Course which is currently taught at KUIS as a part of Diploma in Computer Science program. It will provide a safe platform for the student to learn basic system administration. Apart from the development of VLAB web application, the project uses Proxmox VE; an open source virtualization solution as the virtualization core engine to provide virtual machine instances to the students.

Keywords: Educational Technology, Virtualization, System Administration.
Using Software Visualization In Learning Introductory Programming: A Review

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Abstract. The skill of programming includes knowledge of programming tools and languages, problem-solving skills, and effective strategies for program design and implementation. Basically, a common approach in learning programming is to be familiar with the basics of a programming language in advance to effective strategies for the whole programming process. However, many novice learners are facing difficulties and feel challenging in learning introductory programming course especially in JAVA programming language. Nowadays there are many technologies and programming tools are available to assists in reducing programming learning difficulties felt by novice learners. This paper provides a review of using software visualization as a programming tool in learning introductory programming focusing on understanding and behavior of learners.

Keywords: introductory programming, programming tool, programming learning
Penggunaan Object-Relational Database Management System (ORDBMS) dalam Pembangunan Sistem Permohonan Kod Penyelidikan dan Penulisan (SISKOD)

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Keywords: Konsep Berorientasikan Objek, Object-Relational DBMS (ORDBMS), Pangkalan Data Berorientasikan Objek (OODB) dan SISKOD.
Cyber Entrepreneurship Ecosystem: Proposed Concept Paper.

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Abstract. Entrepreneurship ecosystems are an emerging trend. New concept and definition are being introduced in an attempt to explain entrepreneurship activities. Cyber entrepreneurship has been identified as a new ecosystem when entrepreneurship is being discussed from micro perspective. Research in Cyber entrepreneurship opens a wide spectrum in research gaps. Via this concept paper, Cyber entrepreneurship will be explained from the following approaches: (1) Cyber entrepreneurship characteristic comparing to traditional entrepreneurship, (2) Cyber entrepreneurship position when comparing with e commerce / e business and technopreneurship and (3) Eight dimensions of Cyber entrepreneurship. Even without government recognition, cyber entrepreneurship is widely being adopted by Malaysian in an attempt to achieving their desired objectives.

Keywords: Cyber Entrepreneurship, Entrepreneurial Ecosystem, Cyber Entrepreneurship Dimension
Pengurusan Sumber Penyelidikan – Keperluan Analisa Awal Sistem Pengurusan Penyelidikan (RMS) KUIS

(Managing Research Resources – Initial Requirement Analysis for KUIS Research Management System (RMS))

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Katakunci: RMS, analisa keperluan, modul.
Simulation of Heuristic Usage for Load Balancing In Routing Efficiency.

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Abstract. The Open Shortest Path First (OSPF) is a link-state routing protocol that support equal cost load-balancing process in network. The OSPF traffic allows a router to use multiple paths to a destination when forwarding packets and splits the load equally at nodes where a multiple outgoing links on the shortest paths to the same destination. This paper presents a simulation of heuristic usage that reduces time executions in the optimization process. This simulation use to optimize the link weights in the heuristic usage method and result shows the increase of routing efficiency and network performance.

Keywords: simulation, traffic engineering, OSPF, optimization, routing, network
Analysis on Generating Test Cases for Random Testing Using Optimization Techniques

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Abstract. An effective method for testing units of software is random testing. Its thoroughness is according to the settings of optimal parameters. For the purpose of checking the test input data the randomized testing uses randomization. This paper gives a comparison between optimization algorithms like Genetic Algorithm, Particle Swarm Optimization algorithm (PSO) and Artificial Bee Colony (ABC) which is used to produce an optimal test data for randomization within less time. It is used to evaluate the target method solutions for test coverage in test data. The main goal of these algorithms is to generate the optimal test parameter, reduce the size of test case and to achieve high coverage of the testing units with of optimal value. One of the algorithms achieves high coverage and produces the better optimal value within less time.

Keywords: Randomized unit testing, Particle Swarm Optimization algorithm (PSO) and Artificial Bee Colony(ABC).