

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
24	Fatai SADIQ, UTM; Ali Selamat, Universiti Teknologi Malaysia; Roliana Ibrahim, Universiti Teknologi Malaysia Context-Awareness With Activity Recognition For Mitigation Of Crowd Disasters: A Systematic Literature Review	<p>During the crowd gathering, panic and other unforeseen factors can lead to human stampede and subsequent result to the crowd disaster. This has been observed across the world. To reduce the accident and saves more lives, improving activity recognition accuracy (ARac) is a major step in crowd monitoring using smartphone sensing. This paper identifies and analyses existing techniques strength, weaknesses, and contributions in context-awareness through a systematic literature review. Search terms with relevant keywords were used to identify primary studies related to context-awareness with activity recognition. These were retrieved from journal articles, conference papers, workshops in IEEE, and book chapters in Springer. Sixty eight (68) primary studies were identified during the search processes, out of which 53 were journal articles, 8 were conference papers, 4 were workshop papers, and 3 were contributions from book chapters. Research related to context-awareness and disaster mitigation were just 3 publications. Context-awareness framework and activity recognition has been significantly discussed in the domain. However, the paper shows that existing techniques suffer some limitations that include ARac of 92%, which may lead to a high false negative alarm, less reliability of accurately sensed information, and unreliable prediction of unforeseen incidents that may lead to disaster during emergency situation in a crowded area in the previous study</p>
25	Faiza Saleem, UTM Earnings Management And Dividend Policy: Empirical Evidence From Pakistan Oil And Gas Sector	<p>The aim of this study was to find out the impact of earnings management on dividend policy of oil and gas companies listed at the Karachi stock exchange. The study uses annual data of oil and gas companies for the period from 2008 to 2015. The dependent and independent variables are dividend policy and earnings management and the three control variables are leverage, return on equity and firm size. Modified cross sectional Jones model (1995) was used for calculating discretionary accruals which has been used as proxy for earnings management whereas measurement of dividend policy has been proxy by dividend payout. The findings from regression analysis indicate that earnings management has insignificant relationship with dividend policy of selected firms in Pakistan. Financial crisis in world and economic decline period are the main</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>reasons of this relationship. In the decline period the firms try to increase manipulation in earnings as a result the company starts reducing dividend payments. It is concluded that there are some other factors that may influence the pattern of dividend payment in the firms.</p>
26	<p>Faiza Saleem, UTM Causality Of Interest Rate, Exchange Rate, Inflation Rate And Stock Prices: Emperical Evidence From Pakistan</p>	<p>The intention of this research is to provide empirical evidence regarding causality among interest rate, inflation rate, and exchange rate with stock prices in Pakistan for the period from 1990 to 2015. In order to check the stationarity of data. Augmented Dickey Fuller (ADF) unit root test was used. Johansen cointegration technique was used to find out the long term equilibrium relationship among variables and direction of causality was determined by Granger causality test. The findings from cointegration indicated that there was a negative relationship of exchange rate, inflation rate and interest rate with stock prices. Granger Causality test result shows unidirectional causality running from interest rate to stock prices and no causality was observed for inflation rate and exchange rate to stock prices. The overall evidence proposed that equity market of Pakistan incorporate substantial information of interest rate, inflation rate and exchange rate in its stock prices. The study suggested that the Securities and Exchange Commission of Pakistan should start a capital market reform program towards the development of efficient corporate sector and capital market, based on sound regulatory principles that provide momentum for high and steady economic growth.</p>
28	<p>Siti Zubaidah Omar, Universiti Teknologi Malaysia; Mohammad Yusof Arshad , Universiti Teknologi Malaysia; Mohd Shafie Rosli, Universiti Teknologi Malaysia; Nurbiha A Shukor, Universiti Teknologi Malaysia Chemistry Modelling Skills: A Study Among Malaysian Boarding School Students</p>	<p>The purpose of this study was to measure the level of modelling skills in chemistry among Malaysian secondary school students. 112 form four boarding school students? participate in this study. Data were obtained using Chemistry Modelling Skills Test (CMST), an instrument that was developed by the researcher, specifically designs to measure chemistry modelling skills in the context of Malaysia. Data were analysis using quantitative and qualitative method. The findings show that the level of modelling skills among students is weak. Students performances was moderate for lower level of modelling skills; first, second and third hierarchy. The finding also show students were not able to mastering modelling</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		skills, especially modelling skills at higher hierarchy level.
29	Siti Salbiah Omar, Faculty of Education A Study On Malaysian Science Students Conception Of Acids And Bases	Knowledge of chemistry involves abstract concepts and it should be explained in three representative levels, namely, macroscopic representative level, sub-microscopic representative level and symbolic representative level [Johnstone, 1991]. The first concrete and actual level is the macroscopic level which contains visible and tangible concepts or processes; the second level is about the actual phenomenon which explains the sub-microscopic level depicting entities which are too small to be seen under an optical microscope and, the bonding within and between them and the third level is symbolic, which involves figures, signs, symbols, letters, equations, mathematical representations and formulae. The success of students in mastering the concepts of Chemistry is closely related to their ability to create relationships among the three levels of representation. The different levels of representation are integral to understanding chemical phenomena, a fact that makes learning in chemistry challenging. To understand chemistry in a meaningful way, students need to be exposed to the three levels of representation in chemistry. Relying on this basis, the purpose of this study is to investigate the student?s conception of acid and base according to these representation level among form four science stream students. The test was administrated by the researchers involving a total of 146 respondents from three different schools. The instrument used in this study is Chemistry Achievement Test (CAT). This achievement test consisted of 4 different items, based on the multiple representations by Johnstone [1991] covering the topic of Acids and Bases, developed according to the Malaysian context. The measurement of CAT is based on three representation level, which is macroscopic, sub-microscopic and symbolic level. The finding revealed that the student?s achievement in the test is at the low level with the mean score of 31.28. The minimum score is 0.00 while the maximum score is 83.3
30	Nor Hidayah Abd Radzaz, Universiti Teknologi Malaysia; Siti Aisyah Abdul Rahman, Universiti Teknologi Malaysia The Multilevel Study on Group Safety Climate and Task Performance	This multilevel study investigates group safety climate and workers task performance among production workers from automotive manufacturing in Malaysia. Previous studies reported that study on group differences is important to investigate the supervisors?

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>response on each group and how it influence the workers. Group safety climate refer to workers shared perception on supervisor concern on safety. The workers of group with high level of group safety climate reported to have higher task performance. It is because they perceived encouragement and concern from supervisor on safety practices and lead workers to work efficiently and enhance their task performance. As arguable, group safety climate is an organizational climate construct that also shown cross-level effect on individually perceived task performance. Using hierarchical linear modelling (HLM), the cross-level effect between group level safety climate and task performance is being examined. By conducting HLM analysis, researcher identify the differences between groups in perceiving group safety climate and how it directly effect the workers behaviour (task performance). The sample is being collected from single organization which including 30 work groups from the organization and represent by 230 production workers. The final result of this study suggested that group level safety climate as an important organizational climate construct that able to enhance workers task performance in fulfil the organization goal. Key words: Multilevel Study, Group Safety Climate, Task Performance</p>
31	<p>Cutifa Safitri, MJIT; Wan Haslina Hassan, MJIT; Shidrokh Goudarzi, MJIT Content Centric Vehicular Network: A Survey</p>	<p>Content Centric Network (CCN) is one of the Future Internet Architecture stemmed from the current communication paradigm shift from host-centric to content-centric. CCN realize the importance of managing content rather than managing bindings between user and the content?s container. The need of this paradigm shift is to attend the exponentially growth in the number of content created, shared and exchanged in the interconnected network (Internet). With the current deployment of mobile devices that allow user to stay connected while dynamically move from one location to another, the topology change differs from each location introduce challenges. Managing dynamic content of mobility has several challenges due to the repeated handoffs and dynamic changes in wireless network topology. CCN in vehicular approaches may be beneficial to manage communications occurs to the vehicle (passengers retrieve content information) and inter-vehicle communication (traffic status, road block). This</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		paper aims to present a scalable CCN framework that is able to adapt with the dynamic load variations of passengers request in vehicular network.
33	<p>MUHAMMAD KHAIRI ABDUL MAJID, UTM The Moderating Effects Of Psychological Capital And Organization Commitment On Relationship Job Demands, Job Resources And Job Burnout: A Conceptual Paper</p>	<p>High degree of stressful job comes into consideration when each particular job required their practitioners to be responsible for others live. With this requirement it is understandable that the practitioners may be consistently stressed. Since the 1970s job burnout has emerged as an important concept however, burnout research from the Malaysia perspective are minimal. In addition, the previous research on burnout was frequently studied in the population of nurse, teachers, doctors, social workers, police officer and most studies regarding burnout were conducted in the social organization which is not based on profit oriented, and it lack relevance nowadays. This research aims to explore burnout effects on commercial airline pilots and it relationship with job perceived performance in airline industries context. Furthermore, this paper propose a conceptual model to further understand the moderating role of the organizational commitment and psychological capital in influencing relationship between job demands, job resources and job burnout. This paper is then developed into concrete research hypothesis for future studies. The model will serve as a guideline for policy makers, employer and employee in managing their personal and working life.</p>
37	<p>Muhammad Mujahid Muhammad, Universiti Teknologi PETRONAS, Malaysia; Babatunde Korode Adeogun, Ahmadu Bello University, Zaria - Nigeria; Abubakar Ismail, Ahmadu Bello University, Zaria - Nigeria Design Of Reverse Osmosis System For Treatment Of Effluents From Stabilization Pond</p>	<p>The present study focus on designing reverse osmosis for reclaiming wastewater from stabilization ponds located at Ahmadu Bello University, Zaria - Nigeria. The wastewater quality of stabilization pond effluent was analysed using conventional methods and Integrated Membrane System Design (IMSD) software. The result showed that design reverse osmosis reduced the concentrations of Ca, Mg, Na and K of the feed water from 8.52 mg/l, 4.28 mg/l, 194 mg/l and 76 mg/l to 0.013 mg/l, 0.006 mg/l, 1.373 mg/l and 0.672 mg/l in the permeate water, respectively. The same trend was observed for the anion contaminants as well. Consequently, it was concluded that the permeate water could be recycled. Also, the membrane should be removed and cleaned once in six months and replaced every five years interval. Key words: Reverse Osmosis,</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		membrane technology, permeate water, membrane design
40	Zaina Norhallis Zainol, Universiti Teknologi Malaysia; Haslinda Mohamed Kamar, Universiti Teknologi Malaysia; Masine Md Tap, Universiti Teknologi Malaysia; Mat Rebi Abdul Rani, Universiti Teknologi Malaysia Heat transfer simulation of skin burn injury for fire fighters	Skin burn induced by thermal radiation exposure during firefighting is a common injury. The research was aimed to model of heat transfer simulation in protective clothing exposed to thermal radiation. The model was designed to quantify the skin temperature distribution encapsulated with fire fighter?s protective clothing by utilizing computational fluid dynamic?s ANSYS software. The software is known to be able to analyse the thermal performance of the protective clothing materials during strenuous fire suppression activity. Two materials; Aralite and Nomex III Defender were analysed and exposed to 83Kw/m ² heat flux with 1mm, 3mm and 6mm microclimate thickness. The second-degree burn started to develop for Aralite material at 345.15K clothing temperature and 340.15K for Nomex III Defender. The microclimate thickness at 6mm reduced burn severity as it had higher air volume limits heat transmission. Air velocity was simulated at the inlet of the microclimate at 0.2m/s and became heat sink to prevent skin injury reducing the skin temperature at comfort level.
41	Siti Aishah Ramli, Universiti Teknologi Malaysia Polyhydroxybutyrate/polycaprolactone/epoxidised palm oil blends: Thermal and Mechanical properties	Poly (3-hydroxybutyrate) (PHB) is well known as one type of biodegradable thermoplastic. However, it is brittle and causes difficulties to process. Furthermore, PHB has thermal instability whereby there are narrow gap between melting and degradation temperature of PHB. These weaknesses limited the usage of PHB. To improve the properties of PHB, Poly(caprolactone) (PCL) were blended with PHB. Previous research showed that PCL is a polymer that commonly used in improving brittleness and it also being used in PHB/PCL blending. Different ratio of PHB and PCL (100:0, 90:10, 80:20, 70:30, 60:40, 50:50, 0:100) were blended using melt compounding. However, in this study epoxidised palm oil (EPO) was used as plasticizers in order to improve the miscibility, thermal and kinetics properties of PHB/PCL blends. 60/40 PHB/PCL with 10 wt% EPO showed better thermal instability compared to pure PHB. Presences of EPO enhance the tensile properties of PHB/PCL
43	Halina Hamid, UTHM	Various techniques have been used in the stabilization of soil either by mechanical methods, chemical methods or mixing the

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	<p>Appraisal On Unconfined Compressive Strength Of Soft Clay Using Cockle Anadara Granosa Shell As Stabilization</p>	<p>additive. Among the additives commonly used is a mixture of lime containing calcium oxide (CaO) mainly to the clay soil. However, cockle type Anadara Granosa also contains high CaO of 87.70%. The presence of CaO in clay will react with the silica will indirectly increase the strength to bear the load of the structure. Therefore, this study was conducted to determine the appropriateness of the use of cockle on soft clay to identify strength compared with the moisture content and maximum dry density for powder content cockle optimized based on the percentage mixing of cockle for 3%, 6% , 9% and 12%. The comparison is done with the control sample to determine an increase or decrease in the strength of the soil. The study was conducted by chemical methods of testing X-Ray Fluorescence (XRF) and physical methods of Unconfined Compression test. Based on experiments conducted it was found that the use of cockle shell powder mixture of 3% is appropriate because of the increased strength of the uneven compared with control samples despite differences the increase was 39 kN/m².</p>
44	<p>Shila Shahnaei, UTM; Tan Owee Kowang, Universiti Teknologi Malaysia (UTM); Goh Chin Fei, Universiti Teknologi Malaysia (UTM) Determine the factors affecting on organisational innovation capability</p>	<p>Due to increasing competitive advantage and the complexities of the information, organizations need to utilize specific skills in order to be updated in a dynamic environment. The most important issues are creativity, innovation and increase innovation capability in the organization. These issues help each organization to achieve competitive advantage in the market. The necessity of creativity, skill in this era lead to, economic growth, increasing efficiency, creating new technology, competition, organizational survival, increasing income and social welfare. Organizations that support creating new products and improving services can produce a dynamic environment in the organization. Innovation performance is a very broad concept that includes different dimensions. This concept has been evaluated by numerous scholars during the time. However, the results of these studies have not yet clarified innovation and creativity also the factors that can effect on them. Therefore can explain understanding the concept of innovation and creativity are very difficult task to carry out. The purpose of this study is to prepare suitable information about organizational innovation in order to find the gap between inventory levels and optimum level, which can fill with finding</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>new opportunities for growth and creating new ideas in the market for going out of economic crisis. The current study evaluating the fundamental principles of innovation, creativity and determine some of the factors, which influence on organisational innovation. The current article intended a guide on how the process of innovation can be done, how creativity and innovation can be affected on organizational survival, and how numerous innovation metrics are developed and measured.</p>
45	<p>Abdelwahab Alhammi, UTM; Azhar Khairuddin, Universiti Teknologi Malaysia Enhancing Computational Efforts with Consideration of Probabilistic Available Transfer Capability using Probabilistic Collocation Method</p>	<p>Most of Probabilistic Load Flow (PLF) studies with consideration of generation and load uncertainties concern with reducing efforts computational and high accuracy. This paper proposed a Probabilistic Collocation Method (PCM) to improve the common used PLF computation methods in order to model the network topology uncertainties. The probabilistic Distribution Functions (PDF) concept used to model the impact of network uncertainties as a linear function of power injections. One of the most famous expansion methods is Gram-Charlier and Comulants used for maintaining the linear relationship between line flows and power injections of transmission line flows. Since deregulation of electric bulk power system has caused dramatic increases in the use of the transfer capabilities. Computation of probabilistic power flows is one of the major missions in system planning analysis. Transfer capabilities and planning has become important issues and more competitive bulk power market place, increasingly due to the fact that federally mandated open access transmission . PLF study requires a specific process for loads, generation inputs and network conditions inform of probability distribution function for uncertain parameters which affecting output interest. In an open access environment, the uncertainty information cause impacts to power flow system computation, significantly integrated system. Further expansion needs high accuracy planning to maintain a reliable system, bus voltages and line flows for a range of load and generation conditions must be assessed. Conventional deterministic approaches are impractical in case of PLF computation, because of large time consumed and accuracy insufficiency. Accomplishment PLF studies give experts a confidence of upcoming system</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>extensions. The proposed method is examined using IEEE30-bus test system. Numerical comparison with both Monte Carlo simulation method, distribution factor concept is also presented in this paper</p>
47	<p>Wan Hairul Anuar Kamaruddin, Universiti Teknologi Malaysia; Md Supar Rohani, Universiti Teknologi Malaysia; Md Rahim Sahar, Universiti Teknologi Malaysia The Growth Of Neodymium-Doped Lithium Niobium Borate Crystal By Czochralski Technique</p>	<p>The growth of neodymium-doped lithium niobium borate (NdLNB) crystal in air atmosphere was successfully grown by Czochralski technique for the first time. The conditions required to grow NdLNB crystal was described. By an effective control on the growth parameters such as retaining the accurate temperature gradient by controlling the output power and the growth rate throughout the growth process specifically on the seeding phase, and well selection of pulling rate and rotation speed, the NdLNB crystal was successfully produced using the Automatic Diameter Control - Crystal Growth System (ADC-CGS). The sample was crystalline as established via XRD studies and DTA confirmed the crystal nature.</p>
48	<p>Sylvia Gala Anak Mong @ Agam, Universiti Teknologi Malaysia; Sarajul Fikri Mohamed, Universiti Teknologi Malaysia; Mohd Saidin Misnan, Universiti Teknologi Malaysia & Faculty of Built Environment Key Characteristics Of Effective Building Maintenance And Management By Local Authority In Malaysia</p>	<p>Building of facilities are to be maintain and manage to immaculate condition and well functioned. In modern community area, the expectations of the public are rising and their need keep on changing towards the better quality of life. Building maintenance and management is one part of the facilities management's scope which will ensure the effectiveness of the management towards the sustainable performance of the facilities provided. Therefore, it is important for the local authority to have the proper knowledge and practice of building maintenance and management. As a service provider, the local authority not only accountable in providing the facilities but also in maintaining and managing them well to ensure the facilities able to serve better in future. This paper attempts to examine the building maintenance issues and challenges in managing the public facilities in Malaysia's local authority context. The identification of sustainable solutions also will also be reviewed to enhance current procedures of facilities maintenance by local authority.</p>
51	<p>HASSAN ISMAIL, UTHM Client Perception Towards Application Of Industrialised Building System (Ibs) In Private Construction Projects: Best Practices And Success Criteria</p>	<p>Industrialised Building System (IBS) is well known in many developing countries due to the benefits that can be derived from its applications in construction projects. However, the low percentage of IBS usage may be due to lack of awareness and knowledge about IBS among many professionals. There may be</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>factors that contribute to a lack of interest from the client towards IBS. The aim of this study is to improve the application of IBS particularly in private construction projects in Malaysia by determining the current application of IBS in private construction projects, client perspective towards IBS application, and to produce a conceptual framework of success criteria for IBS adoption in private projects. In general, respondents indicated high concurrence on the IBS benefits, the factors of low application of IBS in private construction projects, and the success criteria to improve the IBS application. It is hoped that the finding of this study could assist professional parties in construction industry in providing a better ground knowledge for improving decisions making to achieve the success of IBS construction projects implementation that This research will achieved the project objectives in terms of predetermined objectives that are mostly within the time, specified budget and standard quality.</p>
52	<p>Aminu Liman, SPGS UTM Achieving Sustainable Poverty Reduction in Nigeria The Case of Local Empowerment and Environmental Management Project (LEEMP) in Adamawa State</p>	<p>This paper provided an evaluation case of the implementation of the Local empowerment and environmental management project, (LEEMP) in Adamawa State of Nigeria. The study used both qualitative and quantitative research techniques to obtain data on the implementation of LEEMP (local empowerment and sustainable development project) in Adamawa State of Nigeria. The result shows that the Project has impacted positively to some rural communities in the State. However, there is still challenges including geographical class in terms of distribution of resources and rural infrastructures. Inadequate maintenance of local empowerment strategies, and insufficient management of scares resources for the empowerment schemes. Improper participation of the communities in the projects. This paper implies that effective incorporation of rural communities in the local development strategies require full community participation in the distribution of facilities and services This requires inclusive action, which ties the community on participating process in rising rural economy and infrastructures, then improvements, in cultures, of sustainable maintenance of rural infrastructure as well as economy empowerment and benefits into householdsâ€™ self-reliance and agricultural modernisms, with balancing the aim of improving life of rural dwellers, economic</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>emancipation, sustaining rural infrastructures and ecological management in to the regional development.</p>
53	<p>MUHAMMAD MUSTAFFA, Universiti Teknologi Malaysia Processing and Mechanical Properties of Low Density Polyethylene / Modified Cockle Shell Composite Films</p>	<p>This paper is to investigate the processing and physical-mechanical properties of Low Density Polyethylene (LDPE)/Cockle shell composite films. The composite films prepared using blown extrusion film machine were filled with the unmodified cockle shell (UCS) and modified cockle shell (MCS) filler. Stearic acid was used as the coating agent during the chemical treatment of cockle shells filler. Melt flow index (MFI) of LDPE composites was measured in order to analyze the process ability of particulars formulation before the blowing process. The improvement of interfacial adhesion of MCS-LDPE enhanced the tensile strength and elongation at break of LDPE/MCS composite film compared to LDPE/UCS while the Young's modulus of both type of filler has been increase, however the modified one is quite lower than unmodified cockle shell filler.</p>
55	<p>Osman H. Osman Employee's Continuance Commitment Mediates Employee's Affective Commitment And Citizenship Behavior: Case Study Somali Telecommunication Industries</p>	<p>It is believed that employees' affective commitment influences employees' organizational citizenship behavior; in contrast with the high interest and the importance of employees' commitment and citizenship behavior in the literature. The main purpose of this study is to find out the relationship between employees' affective commitment and organizational citizenship behavior (OCB). Also to find out mediation role of employees' continuance commitment on the relationship between affective commitment and OCB. This pure designed quantitative research collected the data from 92 employees of telecommunication industries in Mogadishu, Somalia through questionnaire. The path model dependent variable of organizational citizenship behavior, the independent variable of affective commitment and the mediating variable of continuance commitment was tested using regression analysis. The results indicated positive and significant relationship between employees' affective commitment and organizational citizenship behavior. In addition, the result of the study supports the mediating variable of continuance commitment on the relationship between affective commitment and organizational citizenship behavior. The result of study is constant with the previous studies and highlights the importance of employees' affective, continuance</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>commitment on employees' citizenship behavior. Moreover, since there are no many studies been done in the Somali telecommunication industries regarding the importance of improving employees' citizenship, this article may inflate the correlation with continuance commitment mediates the relationship between affective commitment and OCB, in Somalia.</p>
56	<p>Adams Baba, Universiti Teknologi Malaysia Inducing Factors Of Home-Based Enterprise Occurrences In Planned Neighbourhoods</p>	<p>Home-based enterprises (HBEs) as sub-sets of the informal economy in developing countries are usually identified with informal neighbourhoods with low households' income. The occurrence of HBEs in formal housing units with physical planning attributes raise questions on reasons for their manifestations. The exploration of the factors that can be responsible for this development led to the study of planned neighbourhoods of Lokoja, Kogi state of Nigeria. Cluster sampling of ten neighbourhoods using specific criteria was adopted to select study areas and 353 copies of questionnaires structured on Likert's scale were administered to the entire population of HBE operators. Confirmatory factor analysis (CFA) through structural equation modelling of 'aspiration vectors' indicates satisfactory goodness of fit among accepted determiners of the model. This is an indication that beside income generation motives, other latent factors are also significant determinants of HBE occurrences. Recommendations for adoption of new land use planning models has been suggested to integrate living and commercial activities.</p>
58	<p>Ohueri Chukwuka, Department of Quantity Surveying, Faculty of Built Environment, Universiti Teknologi Malaysia (UTM). ; Zakaria Mohd Yusof, Universiti Teknologi Malaysia; Hadina Habil, Universiti Teknologi Malaysia Motivation Framework for Improving Labour Productivity in Iskandar Malaysia</p>	<p>One of the major challenges facing the construction industry today is low labour productivity. Some experts postulate that labour productivity in Iskandar Malaysia (IM) has not been able to attain international standard, due to lack of motivation among the workforce. Despite the efforts made by stakeholders and construction professionals to improve labour productivity, critics still believe that more needs to be done to raise the morale of IM workforce. However, to improve labour productivity in IM, there is a need for the management to apply a more strategic measure, towards motivating their workforce because motivation has been proven empirically among the key factors that increase labour productivity in construction industry. Hence, the objective of this research is to investigate the current situation in IM in terms</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>of workers motivation and output, to enable us achieve the purpose of this study. To achieve the research objectives, a mixed method (quantitative and qualitative) approach was adopted. Two sets of questionnaires were administered to construction professionals in IM and skilled workers in IM respectively. Interview was conducted specifically with site supervisors in IM. Purposive sampling technique was used in selecting the samples for this study. Data collected from questionnaire and interview was analyzed using SPSS software (version 22) and thematic content analysis appropriately. After the analyses, a motivation framework was established and recommended to IM for improving productivity of their workers.</p>
60	<p>Izzati Wahab, Universiti Teknologi Malaysia Tensile Properties And Ftir Spectroscopy Of Carrageenan/ Halloysite Nanotube Films</p>	<p>Carrageenan (CRG) poses as promising biomaterial for medical and pharmaceutical applications due to its anticoagulant, antihyperlipidemic, antioxidant, anticancer, antiviral, and immunomodulating effects but it suffers from weak mechanical strength. One way to enhance their properties is by producing nanocomposites. The purpose of this study is to improve the performance properties of _-CRG by utilising halloysite nanotube as reinforcing agent. The composite films were prepared by solution casting method. Halloysite nanotube was found to increase the strength and modulus of CRG film up to nearly 18 and 14 % respectively at 1% loading. The optimum mechanical properties were achieved for nanocomposite films of CRG/3HNT. The chemical changes of CRG/HNT composite films can be seen through the Fourier Transform infrared (FTIR) analysis. CRG/HNT films can be treated as a potential biomaterial, replacing carbon nanotubes polymer composites, for medical and pharmaceutical applications.</p>
62	<p>farah dahli, universiti teknologi malaysia; saiful izwan abd razak, universiti teknologi malaysia Mechanical And Morphological Properties Of Conductive Porous Scaffold</p>	<p>This paper reports a simple method of fabricating a conductive and highly porous scaffold material made up of polylactic acid (PLA) and conducting polyaniline (PANI). The optimum tensile properties were achieved at a level of useable tissue engineering applications with the inclusion of 4 wt. % PANI. Scanning electron microscopy (SEM) images revealed continuous PANI networks within the PLA. This new conductive scaffold has potential as a suitable biomedical material that requires electrical conductivity.</p>
64	<p>Nurudeen Yekeen, Department of Petroleum Engineering. Universiti Teknologi</p>	<p>The influence of sodium dodecyl sulfate (SDS) and sodium chloride (NaCl) concentrations on</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	Malaysia (UTM); Ahmad Kamal Idris, Department of Petroleum Engineering. Univesiti Teknologi Malaysia (UTM); Muhammad. A. Manan, Department of Petroleum Engineering Universiti Tekn Influence of Surfactant and Electrolyte Concentrations on Generation and Stability of CO2 Foam	generation and stability of carbondioxide-in-water foam has been investigated in this study. Foamability was quantified by the height of the generated foam while foam stability was determined from the foam half-life and the normalized foam height. Result shows that there is an optimum surfactant concentration corresponding to maximum stability of CO2 foam. This concentration reduces with increasing NaCl concentration. Moreover, the presence of salt generally improves the generation and stability of CO2 foam at surfactant concentration below the critical micelle concentration (CMC) of SDS. The screening effect of electrostatic double layer (EDL) by NaCl improved CO2 foam performance below the CMC. This study suggests that surfactant wastage could be minimized by generating surfactant-stabilized CO2 foam at concentration below CMC in presence of salt.
65	Ayesha Abdul mannan, Universiti Teknologi Malaysia; Roziana Shaari, UTM; Norhani Bakri, UTM Presenteeism and Altruisme Effect Toward Nurses Knowledge Sharing Behavior	In this study, two factors was tested which are presenteeism and altruism. Presenteeism in this study refer to the positive attitude to implement tasks by nurses. Their essence of knowledge, helping and caring has led this study to propose altruism as factors that can influence Knowledge Sharing Behavior (KSB). A quantitative research method was employed consuming survey method. Research data was collected from a sample of 386 nurses. Structural Equation Modeling was carried out to examine the predictive behavior of the proposed factors of the research model. The study prove that the presenteeism and altruism influencing nurse?s knowledge sharing behavior.
67	AUWALU ABDULLAHI, UTM; Zaharuddin Mohamed, Universiti Teknologi Malaysia A Hybrid Control With Fuzzy Logic And Input Shaping For Control Of A 2d Crane System With Hoisting	This paper proposes a combined zero vibration derivative (ZVD) shaper with fuzzy logic control (FLC) technique for load hoisting control of a 2D crane. Crane control is a challenging area in control as it is difficut to control unwanted payload sway motion, which results in an inaccurate positioning of the payload at the target area. In this work, ZVD is designed to minimise payload sway motion while, FLC is designed for trolley positioning. Two different approaches are used for the design of the ZVD, first the ZVD is design with parameters of the system at maximum hoisting length secondly, and it is designed with system?s parameters at average travel hoisting length (ATL) to improve the performance of the sway reduction. Mean

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>absolute error (MAE) of the payload sway is used as performance index of the controllers. The MAE values of the sway motion for crane with load hoisting for without controller, FLC, FLC with ZVD and FLC with ATL are 11.3597, 3.5583, 2.0853 and 1.3508 degrees respectively. The simulation results show that the proposed combined control technique achieved precise payload position with acceptable payload sway reduction. Combined FLC with ATL gives better performance as compared to FLC alone and FLC with ZVD.</p>
70	<p>Keng Lim, UTM Review of open-ended mathematical problem</p>	<p>This paper aims to understand the use of open-ended mathematical problem to stimulate students' ability in problem solving. There were five mechanical engineering participating in this study. Their works were video-taped as to reveal their process of problem solving. Intervention of creative problem solving was used as to help the students to come out with solutions. All the process of problem solving and their conversations were video-taped, transcribed and then analyzed into sub-themes, namely: problem definition, ideas generation, decision making, solution implementation and solution evaluation. The result showed that the students were able to solve the problem collaboratively.</p>
71	<p>Asnida Abd Wahab, Universiti Teknologi Malaysia; Maheza Mohamad Salim, Universiti Teknologi Malaysia Comparative Evaluation of Infrared Thermal Image Enhancement Techniques for Breast Cancer Detection</p>	<p>Thermography has shown to be one of the potential imaging modalities due to its capability in providing additional physiological information. Medical thermal images obtained from infrared thermal imaging system consist of valuable temperature properties and profiles, which could be an indicator of underlying abnormalities. The quality of thermal images is often degraded due to additional noise, low brightness and small magnification on the object of interest. Image enhancement is a process to improve the image quality prior to advance analysis. Contrast stretching and image filtering techniques are normally adopted in medical image processing. In this study, a comparative evaluation between contrast stretching and image filtering on individual channels of true color thermal images is conducted. Their individual performances are quantitatively measured using Mean Square Error (MSE) and Peak Signal to Noise Ratio (PSNR) values. Results obtained show that contrast stretching altered the temperature profile of the original image while image filtering appears to enhance the original image with no</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>changes on the profile. Further measurement on both MSE and PSNR shows that the Wiener filtering method has outperformed other filters with an average MSE value of 0.0045 and PSNR value of 78.739dB. Various segmentation methods applied on both filtered and contrast stretched images have proven that the filtering method is preferred to be used in the post-processing stage.</p>
73	<p>TANKO ALIYU YAKUBU Gold Nanoparticles Activated Samarium Doped Tellurite Glass Medium For Plasmonic Laser</p>	<p>In realizing the prospect of plasmonic solid state laser fabrication, following melt-quenching route we prepared a series of samarium (Sm³⁺) ions doped tellurite glasses with gold (Au) nanoparticles (NPs) activation. XRD pattern confirmed samples amorphous nature. TEM images manifested the nucleation of Au NPs in the disordered host. NPs concentration dependent room temperature absorption and luminescence spectra are used to determine the optical properties of synthesized glass materials. The band gap energy for indirect (2.85-2.71 eV) and direct (3.29-3.18 eV) optical transitions are decreased and the Urbach energy (0.327-0.348 eV) is increased with increasing Au NPs contents. Photoluminescence (PL) spectra revealed four visible peaks centred at 562 nm (green), 600 nm (orange), 644 nm (red) and 709 nm (red) nm, which are allocated to the transitions from the ground state (4G_{5/2}) to the excited states (6H_{5/2}, 6H_{7/2}, 6H_{9/2} and 6H_{11/2}) of Sm³⁺ ion, respectively. Furthermore, the observed augmentation in the PL intensity is attributed to the mechanism of energy transfer (ET) from Au NPs ? Sm³⁺ and Au NPs surface plasmon resonance (SPR) assisted local field enhancement (LFE). Meanwhile, the appearance of PL quenching at higher NPs concentration is ascribed to the reverse ET process (viz. from Sm³⁺ ? Au NPs) and optical re-absorption of SP by colossal Au NPs. This glass composition is demonstrated to be the prospective host for plasmonic laser.</p>
76	<p>ghasan Husein, husein Effect Of Different Binder To Aggregate Ratios On Workability And Bending Stress Of Multi Blend Geopolymer Mortars For Use As Repair Material</p>	<p>This article investigated the effects of binder to aggregate ratio on the properties of multi blend content granulated blast furnace slag (GBFS), fly ash (FA), ceramic waste (CP) and bottle glass waste (GP) based geopolymer mortar. Five types of geopolymer mortars were prepared with different binder to aggregate ratio (B:A) 0.30, 1.0, 1.5, 2.0 and 2.5. Sodium hydroxide (NH) with 6 molarity added to sodium silicate (NS) and used as an alkali activator</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>solution, alkaline liquid:binder ratio (S/B) of 0.25 and curing at ambient temperature of 27 Â°C were used for all mixes. The results indicated that 1.0 (B:A) ratio was achieve the optimum results of flow ability, compressive strength and bending stress, increased binder content led to reduce the workability and strength of samples. Also increased binder content contributed to reduce the initial and final setting time of geopolymer mortars. Keywords: Geopolymer mortar, Binder to aggregate ratio, Workability, Bending strength.</p>
77	<p>Muhammad Noor, Universiti Teknologi Malaysia; Tarmizi Ismail, Universiti Teknologi Malaysia; Shamsuddin Shahid, Universiti Teknologi Malaysia Selection Of Best Probability Distributions For The Development Of Rainfall Intensity-Duration-Frequency Relationships In Peninsular Malaysia</p>	<p>The objective of this study is to determine the best-fit probability distribution for the extreme rainfall time series at 22 locations in peninsular Malaysia for the development of rainfall intensity-duration-frequency relationship curves. For this purpose, comparison of four commonly used probability distributions and three parameter estimation techniques was conducted. The IDF curves were constructed with best curve fit parameters estimated for the return periods of 2, 5, 10, 25, 50 and 100 years. Obtained results revealed that extreme rainfall data of Malaysia can be best fitted with GEV distribution and MLE is the best approach for estimation of distribution parameters. Key words: Rainfall Intensity-Duration-Frequency, Probability Distribution, Parameter Estimation, Peninsular Malaysia</p>
78	<p>Bahram Marabi, University Technology of Malaysia (UTM) ; Abdul Kadir Marsono, University Technology of Malaysia (UTM); Abd. Latif Saleh, University Technology of Malaysia (UTM); Farnoud Rahimi Mansour, University Technology of Malaysia (UTM); Mohammadrez Assessing The Efficiency Of A Single Outriggered Frame System In Tall Buildings Under Lateral Load</p>	<p>Tall building's structure challenges encouraged us to knowledge of design in this field. This study focused on the most efficient of structure forms, which named outrigger frame system, which used an outrigger associated central core with peripheral columns as a lateral resisting system in order to reduce top drift and base moment of the tall buildings' structure. In this approach by stiffness ratio method (SRM) of elements of the lateral resisting structural system under uniform lateral load by using the 3D finite-element method (FEM) that is analyzed. Nonlinear quasi-static analysis subjected to dynamic load provided and followed its analytical model. It has been found that the best place for the optimum location of a single outrigger is approximately located between (0.4-0.45) heights from the top of the building by 3D FEM analysis, while is obtained 0.455H by analytical analysis. Whereas, the outrigger located at the top as a cap outrigger system, reduced the lateral drift at the top of building to 72% and in the optimum location</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>obtained 84%. This values are 67% and 88% by analytical analysis respectively. So, in cases where an outrigger is used at a single level throughout the height of the building, the most efficiency of a single outrigger level at the optimum location was 37% more than a single outrigger placed at the top. However, cap outrigger provided an effective reduction in the building drift up to 50%. This method is reliable and can be used as a simple method to estimate internal forces in the optimization of the selected structure of tall buildings before the final design.</p>
79	<p>SALEEM SALMAN, Universiti Teknologi Malaysia; Shamsuddin Shahid, Universiti Teknologi Malaysia; Tarmizi Ismail, Universiti Teknologi Malaysia Assessment of the Accuracy of Gauge-Based Gridded Precipitation Datasets In Iraq</p>	<p>The objective of the present study is to assess the performance of three widely used gauge-based gridded monthly precipitation datasets over the territory of Iraq, where rainfall data in recent years are not available. Different robust statistical measures were used to compare the gridded precipitation datasets with observed rainfall data available in neighbouring countries along the border of Iraq. Obtained results revealed that monthly gridded precipitation datasets produced by the centre for climatic research, University of Delaware (UDel) can reliably replicate the rainfall in most of the stations, which indicates the suitability of this dataset for hydrological studies in Iraq.</p>
80	<p>IBRAHIM GAMBO, UNIVERSITI TEKNOLOGI MALAYSIA; Nor Haniza Sarmin, Universiti Teknologi Malaysia ($\epsilon, \epsilon \vee q_k$)-FUZZY GENERALIZED BI GAMMA IDEALS IN ORDERED GAMMA SEMIGROUP</p>	<p>A fuzzy subset defined on a set is represented as \tilde{A}. It is not always possible for membership functions of type $\mu_{\tilde{A}}$ to associate with each point x in a set X a real number in the closed unit interval $[0, 1]$ without the loss of some useful information. The importance of the ideas of $x \in \tilde{A}$ and $x \approx \tilde{A}$ relations between a fuzzy point and fuzzy set is evident from the research conducted during the past two decades. Ordered \tilde{A}-semigroup (generalization of ordered semigroups) play an important role in the broad study of ordered semigroups. In this paper we provide an extension of fuzzy generalized bi \tilde{A}-ideals and introduce \tilde{A}-fuzzy generalized bi \tilde{A}-ideals of ordered \tilde{A}-semigroup. The purpose of this paper is to link this new concept with ordinary generalized bi \tilde{A}-ideals by using level subset and characteristic function. Note that All the symbols disappeared. Thank You</p>
81	<p>Rabiha Mahmoud, Universiti Teknologi Malaysia; Nor Haniza Sarmin, Universiti Teknologi Malaysia The Energy Of Conjugacy Class Graph Of Dihedral Groups</p>	<p>The energy of a graph G, which is denoted by $E(G)$ is defined to be the sum of the absolute values of the eigenvalues of its adjacency matrix. In this paper we present the concepts of conjugacy class graph of dihedral groups and found the</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>general formula for the energy of the graph. the general formulas for the energy of conjugacy class graph of dihedral groups are found. For n an odd integer, $E(G)$, while for n and even integers $E(G)$ and if n is even integer and n is odd integer then $E(G) = -2$. (Note That there are Missing symbols Pls)</p>
82	<p>Mohd Khairul Idlan Muhammad, Universiti Teknologi Malaysia; Shamsuddin Shahid, Universiti Teknologi Malaysia; Tarmizi Ismail, Universiti Teknologi Malaysia; Sobri Harun, Universiti Teknologi Malaysia Development Of Evapotranspiration Estimation Model Using Gene Expression Programming</p>	<p>The objective of the study is to use gene expression programming (GEP) based symbolic regression approach for the development of PET model for the southern region of peninsular Malaysia. Four GEP models were developed using different combination of meteorological variables and their performance was compared with four well established empirical PET models. Obtained results revealed that the GEP models performed better compared to empirical models in term of all statistical measures used.</p>
83	<p>Siti Afiqah Mohammad, Universiti Teknologi Malaysia; Nor Haniza Sarmin, Universiti Teknologi Malaysia; Hazzirah Izzati Mat Hassim, Universiti Teknologi Malaysia Consistency Of Polycyclic Presentations For Crystallographic Groups With Quaternion Extension</p>	<p>Exploration of a group's properties is vital for better understanding about the group. Amongst other properties, the homological invariants including the nonabelian tensor square of a group can be explicated by showing that the group is polycyclic. In this paper, the polycyclic presentations of certain crystallographic groups with quaternion extension are shown to be consistent; which implies that these groups are polycyclic.</p>
85	<p>Dayang Norulfairuz Abang Zaidel, Universiti Teknologi Malaysia; Nurul Hazirah Hamidon, Universiti Teknologi Malaysia Optimization Of The Yield Of Sweet Potato Pectin Extracted Using Citric Acid</p>	<p>Response surface methodology has been employed to investigate the extraction of pectin from sweet potato residues using citric acid as extracting solvent. The relationships of extraction temperature ($^{\circ}\text{C}$), time (min) and solution pH on the yield of pectin (%) were studied. A Box-Benhken design with three level of variation was used to optimize the extraction conditions. The extractions yielded 6% to 33% of pectin. The optimal conditions determined were extraction temperature 68.02°C, time 99.5 min and pH 1. Under these conditions, the predicted yield of pectin was 33.17%.</p>
87	<p>LOKE KOK FOONG, Universiti Teknologi Malaysia; NORHAN ABD. RAHMAN, Universiti Teknologi Malaysia; RAMLI NAZIR, Universiti Teknologi Malaysia Laboratory Study For Deformable Double-Porosity Soil With Vibration Effect</p>	<p>This research paper aims to investigate the phenomena of double-porosity fracture with different vibration frequency mode in soil due to recent occurrence of earthquake in Malaysia. A physical laboratory experiment approach was conducted to observe the deformation of double-porosity soil under the effect of vibration. The double-porosity soil characteristic was applied by aggregating the kaolin soil that appeared in well-determined inter and intra-aggregate pores. Specific experimental setup was built to empower the stages of vibration on</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>the whole soil column using a vibratory table. The data logger with accelerometer was used in order to obtain the acceleration response (peak ground acceleration, PGA and peak surface acceleration, PSA) of the soil column during the process of vibration. After the process of vibration, a crack width microscope was applied to evaluate the sample surface crack. The deformable double-porosity soil was verified and confirmed through field emission scanning electron microscopy (FESEM) test. From the finding, the surface crack is large due to the weakness of soil structure for 25% water content aggregated kaolin as compared to 30% water content having a small surface crack because it has a stronger soil structure. It was found that the deformable double-porosity have more fractured pores compared to a common double-porosity soil. In the end, it was concluded that the double-porosity fractured pores have high permeability and are dominant factors in fluid migration when the unconstrained soil and large fracture structure fabric showed significantly different porous values. These fractures pose considerable challenges to groundwater sources located below deformable double-porosity media.</p>
88	<p>Abdulrahman Emhemed, UTM; Rosbi Mamat, UTM; Dirman Hanafi, UTHM; Aleisawee Alseid, College of Electronic Technology-Bani Walid, Libya Investigation Of Modeling And Control For A Class Of Process Control</p>	<p>Heat exchanger is a part of a process control plant, that is widely founded in petroleum, chemical, and power plants. Heat exchanger is a high nonlinearity and poor dynamics plant, therefore it is difficult to model and control its dynamics. In this paper two types of heat exchanger model and controller are applied for selecting suitable model and controller. First model is called physical model and derived using real parameter of heat exchanger plant. Second, a Second Order Plus Dead Time (SOPDT) model that is derived from the response of heat exchanger. While the controllers are consisted of fuzzy proportional derivative (FPD) controller and proportional integral derivative (PID) controller and applied to the model and their responses are compared with the existing PID controller. The experimental results show that the responses of the controllers are based on the model of the heat exchanger and the responses of the existing PID have the same trend. The PID controller response based on physical model gives similar to response of existing PID controller when compared to PID response based on SOPDT model. That means the</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>physical model is able to represent the heat exchanger plant dynamics more accurately than SOPDT model. For the controller, the FPD control gives a slight enhancement based on SOPDT model. Therefore, FPD controller is more suitable than PID controller.</p>
89	<p>Dayang Zulaika Abang Hasbollah, Universiti Teknologi Malaysia Assessment Of Geological Co2 Sequestration Potential In Malay Basin, Offshore Peninsular Malaysia</p>	<p>It was anticipated that without any mitigation measures being taken up, resulting in fast increase of carbon dioxide (CO₂) emissions which bring challenge of reducing greenhouse gas emissions in Malaysia. Geological storage of CO₂ is identified as a viable method to reduce CO₂ emissions into the atmosphere. Taking into account the expected increase of energy demand for sustainable development in Malaysia, the potential for CO₂ geological sequestration opportunities in Malaysia should be investigated as a potential way of reducing CO₂ emission. The objectives of this paper are to evaluate the suitability of the Malay Basin as a potential geological storage site for CO₂ in Malaysia and to estimate the theoretical storage capacity of the basin by using CSLF and US-DOE methods. The Malay Basin is estimated to be able to store CO₂ from 84 Gt up to 114 Gt. The Malay Basin is believed to be the most potential site for geological CO₂ storage in Malaysia for it can provide safe and an abundant storage hence will give much help in reducing CO₂ emissions in atmosphere of Malaysia.</p>
91	<p>Kambiz Ghafourian, UTM Sustainable Construction And Demolition Waste Management Issues In Malaysia</p>	<p>Construction and Demolition Waste (CDW) is a deep concern for most developing countries due to its harmful impact on the environment, society, and economy. Sustainable CDW is helped to maintain the stability between the environment, social and economic aspects through several ways, including the implementation of waste management techniques. The effectiveness of implementing sustainable CDW management in this kind of economy, however, is incredibly limited due to numerous barriers. Therefore, this paper attempts to offer insights into the management practices of CDW by identifying several issues that hinder the management of sustainable CDW in Malaysia. The data collection approach includes a thorough review of all sustainable CDW related academic papers, official reports and statistics, as well as government legislations. The finding includes the issues and challenges of sustainable management of CDW in Malaysia with the aim of demonstrating the</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>current challenges related to sustainability of CDW, which are eventually summarized as the eight most important barriers to implemented CDW management in the Malaysian construction industry. The findings of this paper will contribute substantial evidences to both academicians and practitioners towards better management and planning of the policies for CDW in the Malaysian construction industry.</p>
92	<p>Abdullahi Nafiu Zadawa, USM, Penang Malaysia Mediation Effects Of Ethical Procurement Practice Between Familiarity With Public Procurement Guidelines And Construction Project Cost Performances In Nigeria: Process Macro Approach</p>	<p>Reforming public procurement sector is considered necessary especially by developing countries to ensure adequate provision of infrastructural facilities. In Nigeria, public procurement guidelines are the procedural manual for executing public procurement, these are as highlighted as part of the provision of the procurement Act (PPA) enacted in 2007. After eight years now, compliance with the public procurement guidelines has not been without challenges. This paper identified familiarity with the procurement guidelines as one of the key compliance determinant factors. In Nigerian construction industry majority of the construction procurement stakeholders are not familiar with the procurement guidelines and this has been affecting the performance of construction project cost in Nigeria. In an attempt to suggest a remedy this paper identified and tested ethical procurement practices as a mediator between familiarity and construction project cost performances. The study adopted quantitative research approach with questionnaire as the instrument of data collection. 585 questionnaires were distributed to the procurement stakeholders in physical planning units of federal universities in Northern Nigeria. 374 usable questionnaires were analysed using Process macro in SPSS version 21. The result shows that, ethical procurement practices has lessen the effects of unfamiliarity with the procurement guidelines on construction project cost performance, and has proved the occurrence of mediation between the identified factors and construction project cost performances. It is therefore recommended that, awareness on the procurement guidelines be enhance among construction procurement stakeholders in order to improve compliance level.</p>
93	<p>Mohd Nazrul Roslan, Universiti Teknologi Malaysia Brief Study of Braided Composite Tube under Crushing Response</p>	<p>Braided composite offers numerous advantages due to their locking mechanism and continuously oriented to any kind of shapes. It has been broadly used in aerospace, medical,</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>sports and automotive. Owing to their impact resistance and good inter-laminar shear properties, it has been continuously explored by researchers around a globe as it one of the good potential candidate replacing metallic part as energy absorber member in public vehicles. This paper presents a brief review on published research in the field of braided composite tube as energy absorber and discusses them in term of braid parametric behaviour and failure mechanism subject to crushing loadings. Further section, discussed on the advantages and disadvantages between the braided preforms and other techniques preforms in composite tube fabrications.</p>
95	<p>Olutobi Ayegbusi, UTM; Yaik Wah Lim , utm Validation of Numerical Modeling of Thermal Performance and Overheating in Double Skin Facades</p>	<p>Computational fluid dynamics (CFD) simulations are becoming more popular in the study of air flow and air temperature within and around buildings unlike in the past while CFD is predominantly used in the Engineering industries. From the study of thermal comfort in both building spaces to that of pedestrian walking along the boulevard, CFD provides powerful mathematical model that could help give a very good insight into the energy consumption of a mechanical ventilation system in buildings and help to predict the level of thermal comfort at street level. This present study involves the validation of CFD calculations of airflow and thermal performance of a Double Skin Façade (DSF) configuration so as to determine the efficient modelling requirements of an ongoing study. To achieve this, two different experimental data sets of airflow and heat transfer in a naturally ventilated DSF available are compared with the CFD simulations. The numerical results obtained from the CFD approach using K-epsilon two-equation turbulence model agree well with the two experimental data sets collected on a full scale test chamber with a ventilated DSF indicating that the approach is good enough to establish a database for DSF design.</p>
97	<p>Habiba Omar, Universiti Teknologi Malaysia; Dr. Effandi Yussof, Universiti Teknologi Malaysia; Abdallah Sendaro, Universiti Teknologi Malaysia Regulatory Framework And Nascent Growth Of Islamic Banking In Tanzania</p>	<p>The objective of this paper is to analyze the importance of sharia regulatory framework for the development of Islamic banking. Tanzania is among Sub-Saharan, East African countries in which Islamic banking is emerged. Islamic banks are regulated by the same regulations for conventional banks which is believe to hinder its growth. However, the literature revealed that no internationally, generally accepted legal, regulatory, and supervisory framework dealing</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>with Islamic banking. This situation, created a gap where different approaches and remedies have been practiced, nationally and internationally. Tanzania Islamic banking is challenged by lack of special laws with qualified judges to handle sharia issues when arise. This has been contributed by insufficient liquidity for the establishment of such banks, religious with political bias and insufficient public awareness. The absence of regulatory framework governing Tanzania Islamic banking is confirmed by the central bank of Tanzania (BOT), which is the overall regulator of banks and financial institutions. Therefore, all banks has to follow conventional existing regulations. Narrative literature review has been utilized to synchronize different authors? view on the regulatory framework used to regulate and supervise Islamic banks for its development. The suggestions provided in bridging the gap is through designing the appropriate legal framework for Islamic banks and Islamic financial institutions by creating an effective, efficient and vigorous regulatory structure that will allow the implementation of AAOFI, IFSB and Basel II legal and regulatory standards. Henceforth, legal disputes will be cleared and certainty will be created among players with minimal legal risk. Standardized regulatory framework for Islamic banking will enhance the growth of this sector.</p>
98	<p>Nuramirah Akrom, Universiti Teknologi Malaysia; Zuhaimy Ismail, Universiti Teknologi Malaysia A Hybrid Dynamic-Regression Model For Forecasting Short Term Electricity Load Demand</p>	<p>The need for accurate forecasting of electricity load demand has persuaded researchers to expand state-of-the-art models for such time series data. This study investigates the forecasting performances of Dynamic Regression-ANN models for predicting short term electricity load demand. As a result of the indefinite characteristic of the electricity load demand time series, they exhibit both linear and nonlinear pattern. Therefore, implementing a hybrid approach which has both linear and nonlinear components is necessary to raises the forecast accuracy. The Dynamic Regression-ANN hybrid model is deployed using 5 months short term electricity load demand, where reactive power is used as an exogenous variable in Dynamic Regression model. Forecasted electricity load demand data from Dynamic Regression-ANN hybrid model are compared with single method Dynamic Regression and Artificial Neural Network using forecast accuracy measurements. Due to its</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		capability in capturing both linear and nonlinear pattern, the proposed hybrid models provides superior accuracy compared to Dynamic Regression and ANN for electricity load demand predictions.
99	Anjila Suali, UiTM,Arau The Impact Of Socio And Technical Dependencies On Software Quality In Software Engineering Projects	One measure used to measure the fit or alignment between socio and technical dependencies are known as Socio-Technical Congruence (STC). However, STC is a new area. Little is known about the impact of STC on software quality. The objective of this study is to investigate the impact of socio and technical dependencies on software quality in software engineering projects. To perform the study, Mining Software Repository (MSR) will be used to extract data from Modification Request (MR), Subversion System (SVN) and also mailing lists. This study contributes the following: 1) an empirical study that identifies the impact of STC on software quality in software engineering projects.
100	WAN ASMA WAN MOHAMMAD SOBRI, UiTM Perlis The Impact Of Socio-Technical Congruence In A Different Types Of Software Development Life Cycle: A Proposal	Measuring developer coordination is a fundamental challenge and complex task in software development organizations. One approach used to conceptualize and measure developer coordination is known as 'Socio-Technical Congruence (STC)', which is fit between the coordination requirements established by the dependencies among tasks and the actual coordination activities carried out by the developers. However, STC has not been widely accepted as a broad theory. This is for the reason that, STC is relatively new, and there are many fundamental questions that need to be addressed and understood. This research intend to construct a model of the relationship between STC and project performance in the different types of software development lifecycle. The model constructed can be used to provide additional evidence to the body of knowledge, which will further strengthen the STC theory. In this paper, we outline research question, the proposed method used to conduct the research potential contributions and expected results of the research.
101	Imran Ullah, Universiti Teknologi Malaysia; Sharidan Shafie, Universiti Teknologi Malaysia; Ilyas Khan, Majmaah University Saudi Arabia MHD Force Convection Flow of Casson Fluid past a Permeable Stretching Wedge	The steady two dimensional incompressible hydromagnetic boundary layer flow caused by stretching wedge immersed in Casson fluid with heat transfer and suction/injection is investigated numerically. The governing nonlinear partial differential equations are transformed into nonlinear ordinary differential

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>equations using similarity transformations and then solved numerically by using Keller-box method. Numerical results for local skin friction coefficient are compared and found in excellent agreement with published results. The effects of pertinent parameters on velocity and temperature profiles as well as skin friction and heat transfer coefficient are displayed graphically and discussed. It is found that velocity decreases with increase of Casson parameter and wedge angle parameter when the wedge is stretching faster than free stream. It is also observed that rate of heat transfer at surface increases with the increase of Prandtl number and Casson fluid parameter. Moreover, with increase of suction parameter the fluid velocity decreases and rate of shear stress increases.</p>
104	<p>Ailin Tan, UTM; Yeo Kee Jiar, UTM Effects Of Multisensory Instruction On Mathematics Performance Of Students With Dyscalculia</p>	<p>Developmental Dyscalculia is a mathematics related disability resulting from neurological dysfunction. Dyscalculia students have a significant discrepancy between their mathematics skills and their chronological-age-peer norms. They have a significant problem understanding mathematical concepts, thus require intervention by skillful teachers to help them achieve success. This study examined the effectiveness of multisensory teaching approach using concrete learning materials and video in solving addition problems of dyscalculia students. Participants includes three students aged between 10-12 years old. These students were identified by teachers using the Dyscalculia Screener [Butterworth, 2003]. Fifteen sessions of 20-minutes each were carried out with each child, using the Catch Up Numeracy Programme. Post-assessment was then carried out. Result showed that there was a significant progress in terms of basic mathematical skills acquisition in students using concrete learning materials and video in teaching and learning. Additionally, it was noted that such intervention could greatly impact the affective domain of children, raising self-esteem and developing a more positive attitude to the learning of mathematics. Findings indicate that with effective teaching, student with developmental dyscalculia are able to succeed at acquiring basic number concepts needed for mathematics learning. Key words: Mathematics learning difficulties, Developmental dyscalculia, Basic number concept</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
105	Agboola Oluwagbemiga, Universiti Teknologi Malaysia Exploration Of Residents? Social Interactions In Market Place And Its Impact On Community Well-Being	<p>In efforts to summon challenges that associated with people interactions cum activities among ethnic residents, this study explored users' interrelationship within three markets square in rural neighbourhoods of South-west, Nigeria. This is with a view of exploring the significant relationship between residents' interactions and the community well-being. In this regards, this study highlighted the influence of market square as a typical neighbourhood open space on residents' well-being. The study's quantitative approach encircled the survey questionnaire data obtained from Yorubas, Hausas, and Ibos respondents (n=382); and analyzed by SPSS statistical package (version 20). Meanwhile the qualitative data included observation of activities pattern among the three groups. The study's findings revealed that an improvement on the market place quality could better increase residents' interactions that impacts positively on residents' well-being. It is concluded that residents' well-being is a reflection of an experience manifested within the interplay of individuals and group interactions that begets social bonds and well-being. This study's findings could better equip the professionals in built environment on the essence of creating a sustainable open space and community revitalization efforts.</p>
108	Siti Suhaila Mohamad, Universiti Teknologi Malaysia Environmental Friendly Mortar By Added Nonmetallic Printed Circuit Board Waste And Treated Magnetic Water	<p>Nonmetallic powder recycled from waste printed circuit boards (PCBs) and magnetic water (MW) are used in mortar as cement and water replacement respectively. This study aims to propose a method for reuse of nonmetallic PCBs (NMPCBs) and at the same time to increase the strength of mortar. The mortar samples will be tested its leaching and compressive strength. Test variables included the magnetic field strength, exposure period of water on magnetic field and NMPCBs content in place of cement. The leaching test for heavy metals from the raw material of NMPCBs showed that no heavy metal ions were detected in the leachate. Compressive strength of mortar samples mixed with MW is higher than those prepared with tap water. The best compressive strength increase of mortar is achieved when the magnetic field strength is of 0.55 Tesla and exposure period is 2 weeks. MW and NMPCBs can bring about a 28% increase in the compressive strength of mortar. The optimum compressive strength of 30 N/mm² was</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>achieved when 25% of NMPCBs are used to replace cement. As a conclusion, magnetic mortar made with recycled NMPCBs waste is a new type of green building materials, which is friendly to environment and has broad application prospects.</p>
110	<p>Mohd Syafiq Md Salleh Service Learning: Experiences And Perceptions Toward Students In Utm, Malaysia</p>	<p>The purpose of this phenomenological study was to explore the experiences and perceptions of students who completed successfully in service learning project. Four specific themes was emerged from the students interview, such as pedagogy aspect, personal benefit, challenges and problems. Findings show this program have a great implication and beneficial for students and community itself. The purpose of this phenomenological study was to explore the experiences and perceptions of students who completed successfully in service learning project. Four specific themes was emerged from the students interview, such as pedagogy aspect, personal benefit, challenges and problems. Findings show this program have a great implication and beneficial for students and community itself.</p>
111	<p>Shinobu Komai, UTM MJIT MOT Study On Critical Success Factors For Requirements Definition Phase Of It System Development</p>	<p>IT system development success largely depends on the System Requirements Definition (SRD) phase. Researches on Critical Success Factors (CSFs) in the SRD phase are very few. This paper aims to make it clear the CSFs in the SRD phase of IT system development. For this, at first, interviews to hear ?difficult items? in the SRD phase were executed to the participants who were engaged in 3 highly advanced IT system developments. Secondary, major difficult items were extracted from the interview results. In the third, CSFs estimation was executed from the extracted major difficult items. Then, estimated CSFs were compared to those obtained also from the interviews. As a result, CSFs were found to be almost the same between those of estimated and interviewed. Through this research, it can be concluded that 1) Customer/User Involvement, 2) Clear project goals, 3) Technical skills of the project team are the major critical success factors in the SRD phase.</p>
113	<p>Norarida Abd Rhani, Universiti Teknologi Malaysia The Subset Relative Degree For Two Different Groups</p>	<p>The probability that a pair of elements x and y, selected randomly from a group G, commute is called the commutativity degree. The concept of commutativity degree plays a major role in determining how much a group is close or far from being abelian. This concept has been extended to the relative commutativity degree of</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>a group and the relative commutativity degree of two subgroups of a group. This relative commutativity degree is defined as the probability for an element of H and an element of G commute to one another where H is a subgroup of G. Meanwhile, the relative commutativity degree of two subgroups H and K is the probability for an element of H to commute to an element of K. Besides, the subset relative degree of a group G or equivalently the probability of a subset X to be a subgroup of a group G was introduced to determine how close or far the subset to be a subgroup of a group. This research focuses on the subset relative degree involving two different subsets from two different groups, respectively and the subset relative degree of a group in which the subset is the product of two subgroups in the group.</p>
115	<p>Siti Norziahidayu Amzee Zamri, Universiti Teknologi Malaysia; Nor Haniza Sarmin, Universiti Teknologi Malaysia; Sanhan Muhammad Salih Khasraw, Salahaddin University The Probability That A Metacyclic 5-Group Element Fixes A Set By Conjugation</p>	<p>The probability that an element of a group fixes a set was introduced in 2013. Let G be a metacyclic 5-group and Omega the set of all subsets of commuting elements of G in the form of (x,y) such that $\text{lcm}(x , y)=5$ and $xy=yx$. In this research, the probability that an element of a metacyclic 5-group fixes a set Omega is determined by using a group action on a set which is conjugation.</p>
116	<p>Nur Syafiqah Mohamad Sa'adan, Universiti Teknologi Malaysia; Wan Azelee Wan Abu Bakar, Universiti Teknologi Malaysia Removal Of Toxic And Heavy Metals In Clam, Paphia Textile Using Chelating Agent And Alkaline Earth Metal Oxide Catalyst</p>	<p>This research was carried out to study the heavy metals removal which are lead (Pb), cadmium (Cd) and nickel (Ni) from Paphia textile. Three types of chelating agents, namely trisodium citrate, sodium acetate and disodium oxalate and three types catalysts supported on Al₂O₃ namely MgO, CaO and BaO were used. The treatment conditions were carried out using chelating agent at 400 mg/L, one hour treatment time and treatment temperature of 32.5 ± 0.5°C. Metals concentrations were analysed using Flame atomic absorption spectroscopy (FAAS). The initial concentration of Pb, Ni and Cd in P. textile were 1.05±0.18 g/g, 0.83±0.21 g/g, 0.56±0.02 g/g respectively. The results on the optimization chelation technique showed that 400 mg/L of trisodium citrate gave the highest percentage removal of toxic and heavy metals with Pb 84.69% (0.16±0.05 g/g), Ni with 78.60% (0.18±0.08 g/g) and Cd with 41.96% (0.33±0.01 g/g). Further treatment using catalyst revealed CaO/Al₂O₃ catalysts gave the highest percentage removal with 87.79% (0.13±0.15 g/g) of Pb, 83.56% (0.14±0.11</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>_g/g) of Ni and 76.43% (0.13?0.01 _g/g) of Cd at an optimum calcination temperature of 1000?C. This study showed that catalytic chelation technique at optimum conditions able to enhance the removal of toxic and heavy metals compared to chelation technique from P. textile to achieve permissible limits set by Malaysian Food Regulation (Cd and Ni: 1.00 _g/g; Pb: 2.00 _g/g) and EU Regulation (Cd and Ni: 1.00 _g/g; Pb: 1.50 _g/g).</p>
117	<p>NORLIZA MOHD ZAIN, UNIVERSITY TECHNOLOGY OF MALAYSIA; ZUHAILA ISMAIL, UNIVERSITY TECHNOLOGY OF MALAYSIA Numerical Computation Of Newtonian Blood Flow Through A Bifurcated Artery With An Overlapping Stenosis</p>	<p>The behaviour of blood flow through an arterial bifurcation with the presence of an overlapping stenosis in the mother artery is investigated for further understanding on the genesis of atherosclerosis. It has been proven that the malfunction of cardiovascular system arises due to the formation of stenosis might cause a huge hemodynamic changes on the blood rheology. In this study, the flow dynamics is defined according to the incompressible, laminar, steady continuity and momentum equations for Newtonian fluids. The geometry of the bifurcated artery in the presence of an overlapping stenosis assumed to be two-dimensional considering a rigid wall flowing through a bifurcated channel modelled using Cartesian coordinates. The governing equations and the boundary conditions of this problem are solved numerically using Finite Element Method (FEM), and the computational algorithms are carried out using MATLAB? software. Numerical results show that the blood flow characteristics such as velocity profiles are significantly affected by severity of stenosis. Analysis of the streamlines patterns for overlapping stenosed bifurcated artery for different degrees of stenosis severity exhibit flow recirculation zone near the stenotic wall upstream and the daughter artery. The commercial software package based on FEM, COMSOL Multiphysics is used to validate the numerical results.</p>
118	<p>Siti Norafida Jusoh, UTM Investigation on Segment Joint Interaction in Tunnel Lining</p>	<p>Tunnel involves a complex distribution of stress around the excavation and inter-relationship between loads and deflections when lining is subjected during construction and the final state stresses in structure/ground interaction state. Connections joint from segment to segment and from ring to ring are introduced to make sure tunnel is capable of resisting relatively high moments but also effectively flexible to allow movement against surrounding soil. Ring?s joint of lining were comfortable to analyses and quite</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>easily to understand their behaviour but different manner investigation need for segment's joint. This due to the forces acting on lining such as ovalisation load (i.e., soil with lateral and horizontal coefficient and ground water table) that could induce lining segment cracking, joint bolts yielding, joint dislocation and joint tenon crushing, which all result in serious slurry and water leakage problems. Therefore, this paper is focusing on investigation on bending moment of segmental joint interaction in tunnel lining as to gain benefit from flexible tunnel lining design in order to withstand the soil surrounding and additional unexpected range of future external loading. Results from numerical analyses presented and discussed here in. A single intact segment and dual-jointed segment simulation programme were carried out. A model of joint interaction was proposed and validated with previous laboratory findings. A new level of understanding on joint stiffness in lining achieved which beneficial to produce soil-tunnel interaction model in more certainty.</p>
119	<p>Abd Jalil Hassan, River Net Consulting Sdn Bhd Systematic Transforming Process From The Lumped Model To Distributed Model Using Infoworks lcm In Flood Modelling</p>	<p>Runoff estimation from catchment is one of the main component in flood analysis. Runoff from catchment for a selected return period is required as input for channel routing either for checking the channel capacity or design purpose. Development of computer model enables the combination of hydrologic and hydraulic component in a single model have changed the way flood analysis is carried out. The objective of this study is to determine a systematic approach in developing a reliable hydrologic model by adopting a distributed model. In this situation, the component of hydraulic is introduced to the hydrologic model which shall reduce the dependency to various hydrologic parameters through InfoWorks ICM model. Many methods are available to handle the processes which include simple rational method, time area method, unit hydrograph method and even complex approach such as Probabilistic Distributed Moisture model. In hydrologic modelling, lumped model is very much similar to a black box model as it simplify many parameters when converting rainfall into runoff. Parameters such as time of concentration, rainfall spatial distribution and land-use are lumped together as a one input and normally cause difficulty to provide satisfactory results. Results from the analysis</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>shown that with the introduction of hydraulic parameter into the hydrologic model, the runoff from the hydrologic modelling tend to be less sensitive and to the hydrologic empirical formula of the time of concentration.</p>
120	<p>Amir Mahdiyar, UTM Decision Making For Selecting The Optimum Type Of Green Roofs</p>	<p>There are lots of advantages in green roof installation as a sustainable alternative of conventional roofs. Although green roofs offer myriad environmental benefits, the level of effectiveness of green roofs highly depends on the green roofs? characteristics. Green roofs are divided into three major types based upon their characteristics. Some studies indicate the suitability of each type of green roof for building categories. However, there is lack of study to focus on the selection of optimum type of green roof considering a wide range of effective factors during the process of decision making. The aim of this paper is to provide a new insight for designers, developers, and governments in terms of green roof?s optimum type selection. In order to fulfil this aim, an extensive literature was reviewed and also some interviews with the experts in green roof installation were conducted. The results of this study illustrate all the aspects of green roof installation that are needed to be considered in the first stages in design of green roofs.</p>
121	<p>Zulfaqar Sa'adi, Universiti Teknologi Malaysia; Shamsuddin Shahid, Universiti Teknologi Malaysia; Tarmizi Ismail, Universiti Teknologi Malaysia; Morteza Mohsenipour, Universiti Teknologi Malaysia Trends In Annual Rainfall Maxima In Sarawak, Malaysia Under The Hypothesis Of Scaling Effect</p>	<p>The natural variability is required to be removed from the rainfall time series in order to quantify the global warming which induce changes in precipitation. The modified Mann-Kendall (MK2) test, which can discriminate multi-scale variability from unidirectional trends, was used to analyze the variability and spatial distribution of rainfall trends in Sarawak of Malaysia for the period of 1980_2014. Trends in six indices related to annual rainfall maxima namely, maximum 1-, 3-, 6-, 12-, 24- and 72-hour rainfall in a year were assessed. The Mann-Kendall (MK1) test showed changes in 1-, 3-, 6-, 12-, 24- and 72-hour annual maximum rainfall at 6, 4, 4, 5, 3 and 6 stations respectively out of 31 stations at 95% level of confidence. On the otherhand, the MK2 method showed changes in only 2, 3, 2, 2, 2, and 1 station respectively. This indicates that significant changes in annual maximum rainfall estimated by most of the stations using well-known MK1 method are due to scaling effect. The results also revealed that significant changes are mostly positive, which indices annual rainfall maxima are increasing in some parts of Sarawak. The spatial distribution</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>of trends reveals that the significant increase in rainfall maxima occurring mostly in the south and central parts. Increase in annual rainfall maxima indicates increasing probability of floods in the region. Key words: Unidirectional Trends; Scaling Effect, Modified Mann-Kendall Test; Annual Rainfall Maxima</p>
124	<p>Suhaimi Zakaria@Othman Student Evaluation On Higher Order Thinking Skill (Hots) In Blended Rotation Station Model</p>	<p>Research on Blended Learning pedagogy has been quite intensively focused these days especially when talking about developing the Higher Order Thinking skills (HOTs) among students. Predicting the effectiveness of student associated with learning planned blended activities quantitatively would be troublesome; especially, when they are exhausted to answer a questionnaire given to them. Definitely, the result that you tend to dream from the students will be so tragic. As for that reason, semi-structured questionnaire using phenomenology approach was being carried out as the best solution to explore this delicate state of emotion and feels. Review of students on Station Rotation Model activities were being extracted from at a wide range numbers in the class. The results show that the Online and Collaborative Learning in the model were voted as the good approach in cultivating HOTs among them with their distinctive reasons. Discussion on this multi-disciplinary pedagogical approach could provide some clear explanations to the Ministry of Education Malaysia for future implementation. Creative and critical thinking could be accomplished through this model as it caters the needs of the student to be out spoken and wisely embedded proves through their argumentation.</p>
127	<p>mohammed abdulhameed, universiti teknologi malaysia; emad Hussien, university of kerbala An Optimal Control Approach Based On The Spacecraft Altitude By Using H-Infinity</p>	<p>The paper focuses on the design of a robust H_{∞} attitude control for a spacecraft. A model with 6-DOF nonlinear dynamics and some linear approximation of the aerodynamic parts are used. To design a robust H_{∞} controller an augmented plant is constructed by adjusting several weighting functions. The simulations have been carried out in Matlab environment for a spacecraft in the presence of both uncertain system parameters and external disturbance. The analysis simulation results show that both the controllers H_{∞} and Linear Quadratic Regulator (LQR) are capable of controlling the time domain response of spacecraft altitude successfully. According to the results, H_{∞} method gives the better performance and satisfies the requirement design, such as rise</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		time, settling time and overshoots compared to LQR controller.
130	MAIZATUL NADWA CHE AZIZ, FBME; Maheza Mohamad Salim, Universiti Teknologi Malaysia; Noraida Abd Manaf, FBME; Asnida Abd Wahab, Universiti Teknologi Malaysia A Feasibility Study Of B-Mode Ultrasound In Hyperthermia Monitoring Therapy	Local hyperthermia treatment for cancer therapy has shown increasing interest in conjunction to the other existence treatment as such chemotherapy, clinical surgery and radiation. However, local hyperthermia needs a real time monitoring in ensuring heat delivered consistently and avoiding any serious damage and injury towards the neighbouring tissue. B-Mode ultrasound is one of the modalities that can have great potential for local hyperthermia monitoring, as it is nonionizing, convenient, and has relatively simple signal processing requirement compared to the other complex imaging modality. Also, B-Mode ultrasound offers good spatial resolution for thermal monitoring. Therefore, the aim of this study is to investigate and to compare the most optimum B-Mode ultrasound parameters monitoring hyperthermia in normal and pathological breast. A set of female Sprague Dawley rat was used as subject for control group and pathological group. The subjects were dissected and exposed to hyperthermia at variation temperature of 37_C (body temperature) and 40_C, 45_C, 50_C and 55_C for hyperthermia temperatures. The images collected was further process for the purpose of feature extraction via snake active contour algorithm. Result shows, for the calculation pixel intensity in normal and pathological tissue, the temperature values of 37_C and 40_C was chosen as optimum temperature dependent with correspond values of 188.08 and 199.26 meanwhile for standard deviation analysis, the temperature values of 45_C and 55_C was chosen to be optimum temperature dependent in normal and pathological tissue condition with standard deviation value of 57.27 and 57.25. In conclusion, B-Mode ultrasound found to be another potential approach since the pixels value and standard deviation of B-Mode is very sensitive to the tissue structure in monitoring hyperthermia with respect to the changes of temperature.
132	Siti Jamal, FKM, Centre For Composites Utm; Shukur Abu Hassan, Centre For Composites, UTM Mechanical Behaviour Of Unbalanced Woven Kenaf Reinforced Polyester Composites	Awareness has been arisen towards biodegradable materials instead of unrecyclable materials which burden the mother earth. The availability of kenaf fibre in Malaysia as an agricultural crops facilitates local researchers to have full control on kenaf fibre starting from planting, handling, fabrication and up to

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>manufacturing finished products. This research involved tensile analyses of unbalance woven kenaf/polyester composite comparing two deferent type of woven density. Woven kenaf fabrics were weaved using lab scale self-designed hand loom, varies in warp?s direction. Cold compression method was used to fabricate the 2-ply composite panel at controlled fibre weight fraction. The tensile modulus, ultimate strength and maximum failure strain were revealed in this study in weft?s direction. Kenaf with different woven density shows a comparable tensile strength. Failure mechanism analysis have found that fractured was dominant by kenaf yarn. Highest crimp percentage of woven kenaf shows significantly similar responds.</p>
133	<p>Tan Xin Kun, Department of Petroleum Engineering, Universiti Teknologi Malaysia; Wan Rosli Wan Sulaiman, Department of Petroleum Engineering, Universiti Teknologi Malaysia; Ahmad Kamal Idris, Department of Petroleum Engineering. Univesiti Teknologi Malay Advances in Gas-Based Enhanced Oil Recovery</p>	<p>Despite of emerging new technologies, remarkably the shale oil production, oil demand has never decreased but kept on increasing. Various Enhanced Oil Recovery (EOR) methods have been studied intensively and proven to mobilize, and aid in improving the flow of remaining oil in the reservoirs to producing wells, thus leading to better oil recoveries. Gas-based EOR comprises ordinary gas-flooding, water-alternate-gas (WAG) flooding, chemically-enhanced gas flooding as well as foam flooding where gases are consisted elementally in all of the methods. Gases that have been commonly used in EOR are natural gas, carbon dioxide (CO₂), and nitrogen (N₂). This work involves the study of advances in the usage of gases together with the advances in different technologies and methods that are based on gas in EOR. The advantages and disadvantages of different methods are brought into discussion. This paper also compares the economical viability of the different gas-based EOR methods as well as their environmental effects. Specifically, the work discusses the evolution of gas-based EOR, from the most fundamental gas flooding to the more advanced methods, such as the surfactant foam and nanoparticle-stabilized foam. Both the laboratorial results and field case studies are included in this work.</p>
135	<p>Muhamad Norkhizan Abdullah, Universiti Teknologi Malaysia Mechanical Behaviour Of Hybrid Palf/Glass Fibre Epoxy Composite</p>	<p>In recent years, the uses of eco-friendly materials such as pineapple leaf fibre (PALF) have increased tremendously due to unlimited resources from the forests and agricultures. Hybridisation of fibre-reinforced composite promoted various advantages such as low</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>weight, low cost, biodegradable and eco-friendly product having unique properties, which difficult to achieve with single fibre reinforced composites. This present study conducted tensile and flexural test on three different layering sequence of PALF, P and glass, G fibre reinforced composites using hand layup and compression moulding techniques. The alternate layering configuration PGP reveals highest flexural and tensile strength compared to other configurations. In addition, observation from scanning electron microscope (SEM) displayed better interfacial bonding between fibre and matrix. The failure mechanisms such as debonding, micro-cracks, fibre pull out had being found from fracture surface of the optimum layering configuration (PGP). The hybrid composites exhibit superior properties compared to non-hybrid fibre composite.</p>
136	<p>Faeze Sadat Mohajer, UTM; Mahsa Khoshkhooy Yazdi, UTM; Sepideh Parvizpour, UTM; Mohd Shahir Shamsir, UTM Computational Analysis of Hydrolytic and Pre-hydrolytic States of Myosin in Humans</p>	<p>Muscle cells achieve contraction by the interaction between Myosin and actin in actomyosin cycle. During a muscle contraction ATP hydrolysis occurs when the conformation of Myosin's head domain changes from an open to a closed conformation. In this study, both Hydrolytic and Pre-Hydrolytic states of Myosin have been modelled for a comparative study using EasyModeler2.1 and conformation changes have been simulated using GROMACS 4.6.3 software package for 50 ns. Myosin in both of these states was then docked with water and phosphate group of ATP in order to show the formation of Hydrogen bonds between phosphate group pocket of Myosin's head domain and these two substrates and study the effects of these hydrogen bonds on the Myosin's structure. Furthermore, proton transition path between water and phosphate has been analyzed. Here we show that the pre-hydrolytic state of this protein is more stable. Moreover, we confirm that the amino acids involved in converter domain show higher fluctuation in hydrolytic state. It seems that this event is related to the closeness of converter domain to the Myosin's head domain and as a possible result the changing of the position converter domain and opening up of phosphate pocket is enhanced after ATP hydrolysis.</p>
137	<p>Syaidatina Akila Mohamad Azizan, Universiti Malaysia Sabah</p>	<p>This conceptual paper aims to discuss the factors in influencing consumers' intention to purchase organic food products among Muslim consumers such as attitude, health</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	<p>Consumers Intention To Purchase Organic Food Products: A Conceptual Review</p>	<p>concern, environmental concern and labelling with reference to the Theory of Planned Behaviour (TPB) as the guiding principle. This paper focused on secondary data from previous literatures and proposed a conceptual framework and research hypotheses for further exploration in understanding the organic food purchase intention among consumers. The literature review revealed that attitude, health concern, environmental concern and labelling impacted consumer intention to purchase organic food, and moderated by Islamic values. Results suggest the role of religiosity in strengthening the intention to purchase organic food. Several propositions have been developed with aims to proceed with fieldwork study prior to this topic. This paper extends the literature reviews on the consumer behavioural intention towards organic food products by including religiosity values which have been lacking in previous research in sustainable food consumption and also gather another perspective of the role of halal and eco-labelling in influencing consumers'™ interpretation of the products. Further empirical studies can be carried out to test the underlying relationships among the factors and uncover the viable model for future research.</p>
138	<p>Musa Abubakar, UTM; Mohd Fua'ad Rahmat, Universiti Teknologi Malaysia An Integral-Error Feedback SMC controller for Stabilization of a Double Inverted Pendulum System</p>	<p>This paper proposes a new Sliding Mode Controller (SMC) for the stabilization of the Double Inverted Pendulum (DIP) system. One of the controller types used in stabilization of the DIP includes the classical first order SMC. The simplicity in design of the basic equivalent-control based SMC is however offset by its inherent control signal chattering. In this work, the basic equivalent control based SMC controller is modified by augmenting the switching control term with an integral-error feedback (IEF) term. The IEF-SMC controller is demonstrated to significantly reduce the control chatter, have greater robustness to disturbance inputs and minimize the power consumption of the controller. Key words: Double Inverted Pendulum, Sliding-Mode Control, IEF-SMC control</p>
140	<p>Isiyaku Abubakar, Faculty of Electrical Engineering (FKE) UTM Johor Bahru, Malaysia; Saiful Nizam Abd. Khalid, Universiti Teknologi Malaysia; Mohd Wazir Mustafa, Faculty of Electrical Engineering (FKE) Universiti Teknologi Malaysia; Mamunu Mustapha, Facu</p>	<p>The accuracy of a sensing device is the backbone of every measurement in electrical system and the fundamental of every electrical quantity is the voltage and current measurement or sensing. ZMPT101B voltage sensor module is a voltage sensor board made from ZMPT101B voltage transformer which is</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	<p>A New Calibration Method For Zmpt101b Voltage Sensor Module For Accurate Load Monitoring</p>	<p>capable of measuring up to 250V AC. This work is intended to investigate a more accurate relationship between the input voltage to the sensor and the corresponding ADC output. The peak-peak input voltage (measured with standard FLUKE 117 meter) to the sensor is correlated with the peak-peak ADC output of the sensor using polynomial regression to ascertain the best relationship between them. From the best fitting relationship the root mean square (rms) voltage is computed using the arduino microcontroller through instantaneous voltage calculation and peak voltage methods. The outputs are then compared with that of FLUKE 117 meter. The general analysis exhibits that the third order polynomial curve gives the best fit and the errors in the measurement is less than 1% in the peak-peak method and less than 2.5% in the instantaneous method for voltage measurements above 50V. Therefore, the proposed calibration method facilitate more accurate voltage computing for researchers and designers especially in load monitoring where the applied voltage is 240V or 120V ranges.</p>
141	<p>ZURIATI SABIDIN, UTM Numeracy Competency: A Comparative Study Between Non-Aboriginal And Aboriginal Students In Lower Secondary Schools.</p>	<p>ABSTRACT Aboriginal students? education has always been the concern of Ministry of Education in order to achieve the equity in education since 7th Malaysia Plan. Special Education Program for Orang Asli Students (PKMOA) has been designed by the Ministry of Education to meet the educational needs of Aboriginal students who do not master the basic skills of oral, reading, and writing. By taking this as a guide , this study aimed to explore the competence in numeracy of students among aboriginal and non aboriginal in secondary school. In addition, the study also aimed to identify if there are significant differences in level of education and the competence of student in numeracy. Sample consists 143 form 1 and form 2 students from secondary school in Rompin Pahang. Data were collected using numeracy test where newly 32 items constructed in four topics . Using descriptive methods, it provides a simplified and organized description of data. The results obtained can identify aboriginal and non aboriginal students? numeracy competency level. The study also found that, most of the aboriginal students are being able to score from 40% to 59% in their numeracy test. From the result of analysis, students in general are found to be</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>most competent in basic skills of operation. They are good in answering direct question. Aboriginal students are least competent in operations especially skills involving multiplication and division. Most of student face difficulty in solving problem in word sentence. Results of this study can contribute certain information to school teachers, curriculum designers, parents and other educators and researchers. Keyword: Numeracy competence, Aboriginal student, Achievement</p>
142	<p>Haryati Ismail, Universiti Teknologi Malaysia Most Significance Non-Value-Adding Activities During The Construction Process</p>	<p>Non-value-adding activities referred as activities that consume direct and indirect cost, time, resources, labour and space, but give no value added to anyone involved during the process. Unfortunately, from the previous study conducted by the researcher, it is found that awareness by construction participants in Malaysia to take actions against non-value-adding activities during the construction process is relatively low. A total of 375 numbers of questionnaires distributed to the Developer, Jabatan Kerja Raya, Consultants and Contractors to find out the most significance non-value-adding activities in Malaysian construction industry. By using the Pareto Chart, it has been found that defects and waiting time are two categories of non-value-adding activities that frequently occurred in during the construction process. The survey also revealed that non-value-adding activities most commonly took place during structural and architectural work. This paper will also review the causes and effects of defects and waiting time in construction. Through literature reviewed from the previous study, it is found that elimination of non-value-adding activities will give a huge impact towards time, cost, quality and productivity of the project.</p>
145	<p>Asma Khalid, UTM; Ilyas Khan, Majmaah University Saudi Arabia; Sharidan Shafie, Universiti Teknologi Malaysia Heat Transfer in Free Convection Flow of Micropolar Fluids with Wall Couple Stress</p>	<p>An exact analysis is carried out to study the investigation of unsteady free convection flow of micropolar fluids over an oscillating vertical plate. Wall couple stress is engaged at the bounding plate with isothermal temperature. Problem is modelled in terms of coupled partial differential equations together with some physical conditions and then written in non-dimensional form. Exact solutions are obtained using the Laplace transform technique. Analytical results of velocity, microrotation and temperature are plotted in graphs and discussed for various embedded parameters.</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		Excellent validation of present results is achieved with existing results in literature. It is observed that, the velocity is smaller for micropolar fluids than for Newtonian fluids.
146	Mohammad Mousavi, UTM; Tareef Khan, Universiti Teknologi Malaysia; Hazhar Muhammad Khder, Universiti Teknologi Malaysia; Yaik-Wah Lim, Universiti Teknologi Malaysia An Investigation On Daylight Condition In The Contemporary High-Rise Residential Buildings In Tropical Climate	Due to fast development of computer services and online capabilities, home-based computing workspaces have increased all over the world. This developing trend has recently spread in Malaysia, persuading people to work from their houses. Hence, providing indoor visual comfort for home workers by means of daylighting in their residential units is as essential as considering daylighting strategies in office buildings. The aim of this study was to assess conditions of daylight in the existing high-rise residential buildings (HRB) in Malaysia. A general observation of 10 contemporary HRBs was conducted in Johor Bahru to record their facade characteristics in terms of window shading. Later on, a questionnaire survey was distributed among 94 occupants of those case studies. The data was collected through multiple choice question and five-point Likert scale and analyzed by descriptive statistics. The study showed that lack of external shading devices for windows forced residents to use internal shading devices instead. Besides, excessive tropical sunlight caused visual discomfort and glare problems for them. However, occupants mostly tended to close internal shadings (curtain or venation blind) during the daytime. This brought about low-illuminated indoor environment that resulted in high usage of artificial lighting during the daytime especially for daylight-dependent activities (desk-related tasks). Thus, considering flexible functions in the contemporary HRBs should demand more investigation.
149	Siti Ruzita Mahmod, UNIVERSITI TEKNOLOGI MALAYSIA Effect Of A Newly Designed Time-Regulated Talk Test On Utterance Production For Exercise Intensity Estimation	Attempts to enhance a qualitative passage-based Talk Test (TT) into a semi-quantitative counting TT for exercise intensity estimation have been conducted in recent years, but it is still subject to intra and inter-individual variations of utterances. Purpose: Firstly, to investigate the effects of time-regulated Talk Test (TrTT) on utterance production and how reliable the utterance is. Secondly, to evaluate the TrTT performance during incremental cardiorespiratory exercise. Methods: Nine approaches of TrTT (3 designs of display x 3 time intervals at 0.3s, 0.8s and 1.0s) were performed at resting baseline by 14 normal

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>subjects on test and retest basis. Then, the TrTT with highly repeatable utterance production was evaluated during exercise. Results: There were significant effects of TrTT display design and time interval on the utterance rate ($p < 0.01$). The score per breath were also significantly different across design ($p=0.007$) and time interval ($p < 0.01$). Each TrTT approach itself was consistent across test repetition ($p > 0.01$). Simultaneous TrTT design at 1.0s interval demonstrated high repeatability in both scores (ICC=0.83) and utterance rate (ICC=0.86). The utterance rate of aforementioned TrTT were consistent across different stages of exercise and the score was inversely related to the exercise progression. Conclusion: The utterance rate of TrTT performed using simultaneous design at 1.0s time interval was consistent at rest and during incremental exercise. Repeatability of that TrTT approach was proven for utterance rate and score. Thus, it may be reliably used for estimating exercise intensity for patients in exercise therapy programs and healthy populations once its validity is established.</p>
153	<p>Amran Asan, UTHM; Zainal Abidin Akasah, UTHM; Sasitharan Nagapan, UTHM Accidents Causation in Malaysia Building Construction Sites: An Exploratory Factor Analysis</p>	<p>The construction industry continues to be one of the industries that contribute enormously towards global economic growth. In Malaysia, it accounted for RM41.28 billion of the country's Gross Domestic Product (GDP) in 2013 and provides more than 1 million jobs since 2010. However, statistics have also shown an increase of major injury, illness and fatality cases at construction sites. This sector has recorded the highest average fatality rate compared to other sectors since 2007. Therefore, identifying and investigating the various major causes of construction site accidents for reducing these accidents are crucial. The primary objective of this study is to construct a valid and reliable instrument to quantitatively measure the level of accident causation factors in Malaysian building construction sites. We conducted a review of construction safety and health, accident causations and preventions from books, journal, thesis and construction articles in order to provide a global perspective on the subject. We obtained our data from questionnaires and we statistically examined them using Cronbach's Alpha value and Exploratory Factor Analysis (EFA) tools. The results indicated that the instrument satisfied the criteria for a valid and</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		reliable research instrument. Key words: Accident causation, Exploratory factor analysis, Building construction
154	Si Na Kew, UTM Perceptions Of Malaysian English Teachers Towards Native-Speaking English Mentors In Malaysia	In order to increase the quality of teaching and enhance the professionalism of Malaysian English teachers, the Malaysian government has taken initiatives to employ native-speaking English mentors (NSEM) through teacher-training programmes such as English Language Teacher Development Project (ELTDP) and Teaching English Language and Literacy (TELL) to provide these English language teachers with better training. Nonetheless, Malaysians especially English language teachers had voiced out mixed feelings about native-speaking English mentors in the programmes. In this respect, this study was conducted to investigate the general perceptions of Malaysian English teachers towards the NSEM. For that purpose, a mixed-method approach was utilized and 39 primary school teachers from three different primary schools were selected as the sample to answer the questionnaires. SPSS was used to analyse the collected data and quantitative results of the questionnaire were used for choosing 6 potential respondents for interview. The findings revealed that native-speaking English mentors can train local teachers efficiently. Nevertheless, some of them believed that local mentors can also perform equally well in training local teachers.
157	Hooi Peng Lim, Politeknik Ibrahim Sultan; Hairizza Kosnan, Politeknik Ibrahim Sultan; Shukur Abu Hassan, Centre For Composites, Utm Reco Block: Significance Of Replacing Rice Husk Ash As Natural Filler In Ecofriendly Retaining Wall Block	Retaining wall blocks are dry-cast mixtures of cement and aggregates which can withstand external subverting strength attributable to retained soils merely through its self-weight without internal reinforcement. The hydration between cement and moisture substantially liberates heat in retaining wall units and lead to rupturing. Therefore, the present study aims to replace cement partially with rice husk ash (RHA) due to its pozzolanic and cementitious nature for durability enhancement and ease of environmental impact. RHA is processed through burning of raw rice husk (RRH) at controlled temperature of 600°C. Rice husk ash particulates replacement was set at 10%, 20%, 30%, 40% and up to 50% by weight. Compressive strength test was conducted to gauge the targeted strength performance of 30 $\text{N/mm}^2 \pm 5\text{N/mm}^2$. Additionally, water absorption and corrosion resistance test tested at 100 minutes time intervals and age of 1, 7, 14, 21 and 28

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>days of water curing respectively. The results reported that admixture of 30% rice husk ash particulates was indicated to be the optimum replacement level to achieve higher compressive strength, lower water absorption value and better resistance to deterioration by acid solution. The formation of calcium silicate hydrate (C-S-H) reinforced bonding has significantly contributed to these improved properties.</p>
158	<p>Nur Faizzah Baharin, Utm Refractive Index Sensor Based On Lateral-Offset Of Coreless Silica Interferometer</p>	<p>A simple, low cost and highly sensitive fiber optic refractive index (RI) sensor based on lateral offset configuration is proposed and demonstrated. The MZI structure is constructed by splicing a section of coreless silica fiber (CSF) in between the other two CSFs which formed a Mach-Zehnder interferometer. The RI and temperature changes are monitored by measuring the wavelength shift of the peak/dip of output spectra. Experimental result using asymmetrical offset position attained RI sensitivity of 682 nm/RIU for RI range between 1.3 to 1.325, and temperature sensitivity of 0.01889 nm/°C in temperature range from 30 to 100 °C.</p>
159	<p>Hood-Hong Ley, Universiti Teknologi Malaysia Simulation Of Gold And Silver Bimetal Surface Plasmon Resonance Sensor</p>	<p>The characterisation of a gold and silver bimetal refractive index sensor based on surface plasmon resonance (SPR) is presented in this paper. This study is approached via theoretical simulation based on Fresnel equations by analysing the sensor schematics which is based on Kretschmann's configuration. Maintaining a total film thickness of 50 nm, thickness ratio of silver and gold is varied as well as their orientation. The results suggest that the outermost metal layer exposed to the dielectric layer has a stronger influence to the SPR profile and SPR wavelengths. Sensitivity of the sensor increases with gold film ratio but higher silver film increases the resolution. For optimised sensitivity and resolution of 2.3 nm/RIU and 5.6×10^{-5} RIU respectively which corresponds to the gold to silver thickness ratio of 1:4.</p>
161	<p>Andrew Chong Colloidal Dynamics of Citrate Refluxed Gold Nanoparticles</p>	<p>The particle dynamics responsible for the changes in optical absorbance band for hot citrate reduced gold nanoparticles (AuNP) was studied via photon correlation spectroscopy. Polydisperse AuNPs with mode diameter of 38 nm emerge 30 seconds after introduction of trisodium citrate into boiling weak auric acid with molar ratio of 2.21. The particles split into two distinct population peaks around 60 to 80</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>seconds of reflux time. The secondary particles are distinctively smaller compared to initial population possibility of particle fragmentation. By increasing citrate to gold (Cit:Au) ionic ratio, the stabilized AuNPs from Turkevich synthesis shows increased stability, monodispersity and smaller diameter. The stability of citrate capped colloidal go was found to deteriorate as submicron sized agglomerates was found synthesis.</p>
162	<p>Normala Sidek, Department of Communication Engineering, Faculty of Electrical Engineering, Universiti Teknologi Malaysia Droplet-like Circle of Single-mode-Multimode- Single-mode(SMS) Fiber Sensor for Temperature and Refractive Index</p>	<p>This work is to investigate the refractive index and temperature sensor based on multimode interference (MMI) formed by a successive splicing between single-mode-multimode-single-mode (SMS) fibers. The multimode fiber is bent like a droplet shape in order to excite modes into cladding and coating. These modes experienced phase changes due to temperature and refractive index changes, consequently shift the spectra of the sensor. Based on the refractive index measurements for a sensor with coating at curvature radius of 3.5mm, attained the sensitivity of 6.419 nm/RIU respectively, for refractive index range in of 1.30-1.395. It can be conclude that the SMS fiber structure with a bent like a droplet like-circle shape with a smaller curvature radius could gives a better sensitivity in refractive index sensing.</p>
165	<p>Mohd Alif Mohd Puzi, UTM; Hairul Nizam Ismail, UTM Transgenerational Entrepreneurship and the Creation of Tourism Business Conglomerate</p>	<p>This paper discusses critical reviews of the arising of interest on Transgenerational Entrepreneurship (TE) in the tourism business environment. Family with entrepreneurship traits transfer between generation are potentially to be TE, even though the business is being sold or diminished in terms of skills based on past experience learned. The surviving family members may create a board director for strategic business decision. Alternatively, each family members may create the new ventures and become the family business conglomerate. Family business conglomerate is based on family relationship and not by subduing other companies. Furthermore, the family itself might be able to nurture, promote, and maintain an entrepreneurial mindset to the local community beyond the family boundary. This is an evidence that entrepreneurship behaviour can be transmitted to the new generation and form family legacy. TE measured family entrepreneurship by five elements, namely proactiveness, risk taking, innovativeness,</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>autonomy, and competitive aggressiveness. The “high-group of collectivism attitude country”™ according to the existing literature has claimed that it is a perfect breeding ground for TE. This create a unique phenomenon, especially for developing countries in which the knowledges on the characteristics are not well recognised in the tourism field, although there are attempts to prove the relationship of both dimensions. Existing family business research mostly focuses on conflicts, successions and family behaviours in the business environment. At the same time, tourism research mainly address the aspects of seasonality, attraction-suppliers-facilities integration and demand-supplier relationship. Therefore, this review attempted to analyse the existing gap from both fields to create a conceptual transgenerational entrepreneurship in the tourism business conglomerate.</p>
166	<p>Nurhidayu Idris, Universiti Teknologi Malaysia Simultaneous Integration Of Berth Allocation And Quay Crane Scheduling Problems With Service Priority</p>	<p>This paper provides the service priority of vessels for simultaneous integration model with two common activities in a seaport container terminal namely, the Berth Allocation Process (BAP) and Quay Crane Scheduling Process (QCSP). The mathematical model is constructed using a mixed integer linear programming with addition of priority constraint to the integrated model. To validate the integrated model generated with priority constraint, small data instances have been applied. LINGO programming software was used to conduct a numerical experiment in evaluating the performance and to obtain the exact solution of the suggested model with priority assigned.</p>
168	<p>Abdulmalik Shehu Yaro, Universiti Teknologi Malaysia; Ahmad Zuri Sha'ameri, Universiti Teknologi Malaysia Mathematical Model Of Position Estimation Error For A Multiangulation System</p>	<p>Multiangulation estimates the emitter position using the angle of arrival (AOA) with a localization algorithm. A mathematical model is developed to estimate the position error using linear regression. Using Euclidean geometry, a mathematical function that relates the emitter position, AOA measurements error and location of the receiving station is established. The geometrical mathematical function is then equated to the Monte Carlo simulation results using linear regression. The resulting model is able to predict the performance of multiangulation with an absolute difference of 100 meters.</p>
171	<p>Muhammad Khalis Abdul Karim, Department of Physics</p>	<p>A study on radiation dose associated with CT angiography (CTA) was conducted with the aim of estimating the absorbed dose received by</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	<p>Radiation Dose Measurements In Ct Angiography Examinations Using An Adult Anthropomorphic Phantom</p>	<p>patient from each CTA examination including region of head & neck, thorax and abdominal aorta. A multi-row detector CT scanner Somatom Sensation 64 (Siemens Medical System, Germany) was used in this study at University Kebangsaan Malaysia Medical Centre (UKMMC). For each protocols, 27 different TLD-100 chips were used to quantify absorbed dose on radiosensitive organs including right and left lens, thyroid, pituitary gland, right and left breast, gonad and skin on an Alderson-Rando anthropomorphic phantom. Three CTA examination protocols were simulates again in this study involving intra-/extra-cranial, pulmonary (CTPA) and abdomen/pelvis. The absorbed dose was found highest at thyroid in both intra-/extra- cranial CTA and CTPA with mean dose of 14.07 ± 0.24 mGy and 16.20 ± 3.95 mGy, respectively. However, skin absorb the highest dose in abdomen/pelvis CTA at 8.83 ± 0.30 mGy. Results of this study revealed with the highest effective dose was found in CTPA with 12.6 mSv followed by CTA of abdomen/pelvis aorta and intra-/extra- cranial CTA with 8.9 mSv and 4.2 mSv respectively. Representative measurements of the effective dose from various CTA examinations should be periodically undertaken as to optimize the radiation principle of As Low as Reasonably Achievable (ALARA).</p>
172	<p>NURHAZIMAH SHOKRI Ground Penetrating Radar (GPR) In Archaeology: A Review</p>	<p>Archaeology is the study of the ancient and recent human past through material remains. There are many methods being used in archaeological data detection purposes such as magnetic, electromagnetic and earth resistance techniques. The root of these techniques based in its ability as prospection tool to position, generate images and produce map of subsurface artifact. Currently, the Ground Penetrating Radar (GPR) method can help solve the archaeological prospection to reveal the near surface composition of artifacts. Therefore, this paper propose to evaluate the capability and effectiveness of GPR in archaeological prospection. GPR radargram can provide high resolution imaging of shallow subsurface targets based on changes in the electro-magnetic properties of the materials/artifacts. The 3D time-slices of the GPR data allow the enhanced targets identification of potential archaeological interest before planning excavation. Therefore, this</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>paper can be used as a benchmark to evaluate the capability and effectiveness of GPR to identify buried archaeological artifacts/vestigis for future archaeological prospection in Malaysia.</p>
175	<p>Jen Ling Gan, Universiti Teknologi Malaysia; Halimah Mohd Yusof, Universiti Teknologi Malaysia Is Supervisory Support Important To The Effectiveness Of The Training Transfer?</p>	<p>This article reviewed past studies that were carried out in the past decades (2002-2015) on the linkage between supervisory support and training transfer. Most of the organizations have invested billions of dollars onto training. However, training transfer is still in unsatisfactory status. Supervisory support is recognized as one of the aspect that could have an effect on training transfer. However, the importance of supervisory support in training transfer has been overlooked in the past studies. Thus, this paper intends to highlight the needs to make further investigations on the linkage between these two variables. Some suggestions were provided for future studies.</p>
176	<p>Umi Jami'an, UTHM Best Practices Of Materials Management In Construction Project</p>	<p>Construction material consist a large portion of the construction project. Effective material management can increase productivity, cost efficiency of the project and also helps the project complete within the time given. Despite the benefit, material management have problems such delay in supply, price fluctuations, material shortage, lack of storage space, damage and wastage. Besides, material management practices in construction projects have been using manual method and it has many drawbacks. Although the application of advanced technology is needed as it has the ability to assist materials management. However, there is a lack of best practices framework for materials management in construction projects. This study seeks to identify the material management and explains the current practices of material management in construction project. The method used for this study is literature review and case studies. This study will show the research gap of material management in construction industry and finally, come out with the theoretical framework of best practices of material management in construction management that obtain from literature review and case studies.</p>
180	<p>Maisarawani Spahat Back Pain Problem In Industry Using Nordic And Rapid Upper Limb Assessment (Rula)</p>	<p>This project was undertaken to analyse the risk factor of workers working in a rice warehouse in Pasir Gudang Johor. From the studies that have been made before, found many the risk factor of injury related to an employee working posture. This project was undertaken to identify the</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>reasons for the occurrence of injury due to improper posture when lifting loads that occur in the warehouse. A survey conducted to identify the problem using the Nordic questionnaire. In addition, this study focused on reviewing the work posture workers with RULA. To do this analysis, pictures and recording the performance required. The data obtained will be used for the analysis of RULA. In the warehouse, workers have to carry 10kg loads per day. Activity analysis is the method of transferring the sacks of rice on the pallet. The results of the analysis showed that work for this method should be changed to decrease the risk of injury to workers</p>
182	<p>Suza Hamira Suhaimin, Universiti Teknologi Malaysia; Mohini Mohamed, Universiti Teknologi Malaysia Multimedia Tecnology Instruction For Children With Learning Disabilities In Mathematics</p>	<p>The purpose of this research to examine the perspective of a teacher about mathematics instruction for children with Disabilities for Intervention program. For this purpose, a meta analysis of previous study and a semi-structured interview was meeting to be able to interview teachers who teaching mathematics for children with Learning Disabilities. The participant of the study is three educators who teach children with disabilities. The technique that used is qualitative approach. In this research, information acquired from interview, document review and thinking aloud. The result of the research was represented in comparison and gave viable and recommendation for future research.</p>
183	<p>Nor Fadzilah Abdul Ladi, Universiti Pendidikan Sultan Idris On The Generalizations Of The Abelianizations Of Two Families Of Bieberbach Groups With Elementary Abelian 2-Group Point Group</p>	<p>The abelianization of a group is defined as the quotient of the group by its derived subgroup. The Bieberbach groups with elementary abelian 2-group point group of dimension three are torsion free crystallographic groups. The purpose of this paper is to compute the abelianizations of two families of the Bieberbach groups with elementary abelian 2-group point group of dimension three and generalized the formula up to dimension n. The Groups, Algorithms & Programming (GAP) software is used in assisting the computation.</p>
184	<p>Sumaiya Ahammed, UTM Assessment Of Agricultural Water Scarcity In Bangladesh Using Entropy Theory</p>	<p>The objective of present study is to assess the spatial distribution of agricultural water scarcity in Bangladesh using entropy weighting method. Availability and quality of surface and sub-surface water resources in Bangladesh are integrated in a geographical information system to assess the spatial distribution of water scarcity. The study reveals that the western and the southwestern parts of Bangladesh are more vulnerable to agricultural water scarcity.</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
186	FIRDAUS ALI, Universiti Teknikal Malaysia Melaka; Siti Rahaida Abdullah, Universiti Teknikal Malaysia Melaka; MOHD YUSOFF SULAIMAN, UTeM Non-Contact Surface Temperature Measurement Using Helium-Neon Laser	This research presents a non-contact, laser-based thermorefectance technique in measuring changes of temperature at a solid metal surface. Changes in temperature result in a change in the index of refraction, which results in a change in the reflectivity of the solid surface. A Helium-Neon (HeNe) laser and a photodiode are used to monitor the power of the surface reflectivity. Temperature changes then can be determined from the measured reflectivity changes. In this work, a metallic metal heating plate was investigated for two separate cases: heating and a cooling process. The temperature change for heating process was roughly from 30oC to 70oC, and for the cooling process was roughly from 70oC to 50oC. The test time ranged from 28 seconds during heating and 320 seconds during cooling. Results from the measurement are validated with values measured using thermocouple data-logger. The experimental errors occurred due to the intensity of the laser fluctuations and polarization, vibration, and long-term drift of the system. The presented experimental configuration uses a high precision energy-power meter which connected to a personal computer and the data captured by the meter then were read by a virtual temperature measurement instrument developed using LabVIEW.
188	SANG VAN NGOC, Universiti Teknologi Malaysia; Mohamad Bilal Ali, Universiti Teknologi Malaysia; Noor Dayana Abdul Halim, Universiti Teknologi Malaysia Exploring The Preferable Cham Script To Build The Conversion Application For Cham Latin To Cham Script	The main purpose of this research is to explore the preferable Cham script and Cham Latin; to develop application and evaluate the application products. Research sample is divided into two groups and the research instrument distributed into two forms of survey. The application was developed using ADDIE model. This survey, the acceptance of Cham script by religious group is 100%, Cham script online voting by student is 90.09%, Cham script by online questionnaire is 98.3%. EFEO Cham Latin by religious group is 100%, EFEO Cham Latin by online questionnaire is 95.4%. Viewed by sixteen experts using Fuzzy Delphi the results show that percentage of all items are 100%, more than what required (75%), the value of d for total construct is 0.02 (required _ 0.2). For conversion application, we have checked the accuracy percentage of four Cham poems and results Ariya Gleng Anak 99.88% (n=2459); Nai Mai Mang Makah 100% (n=2523); Ariya Cam Bini 100% (n=1823); Ariya Po Ceng 99.91% (n=2202). Using technologies to preserve the

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		Cham language heritage is not only theoretically significant but also practically significant.
189	Jun Xian Foo, Universiti Teknologi Malaysia; Nurul Hidayah Ismail, Universiti Teknologi Malaysia; Dayang Norulfairuz Abang Zaidel, Universiti Teknologi Malaysia Effect Of Extraction Parameters On The Properties Of Sweet Potato Pectin	In this study, pectin was extracted from sweet potato (<i>Ipomoea batatas</i>) waste as an alternative source of pectin. The optimal condition to extract the highest yield of pectin from sweet potato using 0.05M hydrochloric acid at 90_C under different extraction time was determined. Besides that, degree of methyl esterification (DM) of extracted pectin had been studied using FTIR spectroscopy. The highest yield of pectin obtained was 19.17% which was extracted at 90°C, pH 1.5 and extraction time of 4 hours. The FTIR analysis shows that 60.3% of DM was obtained indicates high methoxyl pectin and it will be able to form gel with the addition of sugar.
190	Thaibah Ali, Universiti Teknologi Malaysia; Dayang Norulfairuz Abang Zaidel, Universiti Teknologi Malaysia; Yanti Maslina Mohd Jusoh, Universiti Teknologi Malaysia; Ida Idayu Muhamad, Universiti Teknologi Malaysia; Zulkifli Khair, Universiti Teknologi Ma Effect Of Processing Parameters On The Properties Of Ready-To-Eat Meal For Natural Disaster Victim	During natural disaster periods, the victims are lacking of basic nutrition due to insufficient food and clean water supply. This leads to nutrition deficiency which gradually weakens the body immune system. This study aimed to formulate a ready-to-eat meal to heal (M2H) that contains high nutritional value and does not need reheating or cooking prior to consumption. The M2H was prepared using microwave assisted technique and oven. The effect of key processing conditions including oven temperature, time of heating and microwave power levels on rehydration, textural qualities and color of M2H were investigated. The result indicated that microwave power level caused the most intense effect on rehydration ratio and textural qualities, while the drying temperature affected the color of cooked M2H meals, but insignificantly affected shrinkage and rehydrated capability of M2H meals. All parameters investigated significantly affected on nutritional qualities of M2H meals.
191	Bahram Marabi, University Technology of Malaysia (UTM) ; Abdul Kadir Marsono, University Technology of Malaysia (UTM); Abd. Latif Saleh, University Technology of Malaysia (UTM); Farnoud Rahimi Mansour, University Technology of Malaysia (UTM); Mohammadrez Numerical Analysis And Optimization Of Single Outrigger Frame System In Tall Buildings Structure Subjected To Lateral Loads	Tall buildings have become to a symbolic mode for the modern urban design as a Competition of the world's countries capital. High-rise building's development has been a challenge for engineering judgments in terms of increases in height, the stiffness of the structure, use of lightweight strong materials and expensive, Whereas, limitation of the excessive drift and base moment due to lateral loads until unsolved. Outrigger system with a central core is often used to provide sufficient lateral stiffness to the building's structure. The aim of this study is to obtain the optimum location of

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>a single outrigger system in order to minimize top drift and decrease base moment under lateral loads using 3D modeling by finite-element method (FEM) analysis. The method utilizes stiffness ratio method (SRM) of members for lateral resisting system is a novel methodology that is proposed and follows its analytical model. Analysis is carried out using nonlinear quasi-static analysis which has been conducted using Abaqus / CAE 6. 11v. The obtained results show that a single outriggered frame is optimized when the outrigger level is located at 0.4H from the top of the structure, while optimum location is achieved at 0.455H by analytical model analysis. therefore, the structure will be optimizing when a single outrigger system is in the mid height location, although when placed as a cap outrigger 50% reduced top drift but it may be more permissible using at the building top.</p>
192	<p>KHAIRIAH RAZALI, Universiti Teknologi Malaysia Skudai Comparative The Effectiveness Between e-Quran and Koran Printed For Tajweed's Learning Among Pupils in Primary School</p>	<p>COMPARATIVE THE EFFECTIVENESS BETWEEN E-QURAN AND KORAN PRINTED FOR TAJWEED'S LEARNING AMONG PUPILS IN PRIMARY SCHOOLS Khairiah binti Razali¹ and Ahmad Johari bin Sihes² 1, 2 Department of Education, Faculty of Education, University of Technology Malaysia, Skudai, MALAYSIA. (khairiah.razali@yahoo.com., p-joha@utm.my) ABSTRACT The aim of this study is to identify the effects of e-Quran towards tajweed's learning among pupils in Primary School. 60 samples were selected based on their performance in tests of recitation and memorizing the Quran were then divided randomly into two groups, the control group and the experimental group. The statistical methods used were independent sample t test. The results showed no significant difference between the control group and the experimental group in terms of marks Diagnostic (pre) and Test Topical (post). The respondents in the experimental group showed improvement in the tajweed's learning of 48.6%, which is equivalent to 20 pupils reached the highest band. The control group showed no improvement between the pre-test and post-test in the field of tajweed's learning with only 1 respondent remains dominated band 6 in both the pre-test and post-test. For bands 1, 2 and 3 experimental groups were able to show a significant increase in tajweed's learning when</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>all respondents dominate at least Band 4. Through these findings, briefly can be concluded that the use of e- Quran technology in tajweed?s learning can be increased the pupils success. Key words: e-Quran, e-learning, Islamic education curriculum,tajweed learning.</p>
193	<p>SADDIQ DALHATU, UNIVERSITI TEKNOLOGI MALAYSIA; Rosli Hussin, UNIVERSITI TEKNOLOGI MALAYSIA Spectroscopic Studies Of Samarium Ion Doped Magnesium Sulfo borate Glasses</p>	<p>A series of magnesium sulfo borate glasses doped with difference concentration of samarium ions, 10MgO-40SO₄-(50-x) B₂O₃ - xSm₂O₃ (x = 0.1, 0.3, 0.5, and 0.7) were prepared using melt-quenching technique. In order to understand the role of rare earth (Sm₂O₃) in magnesium sulfo borate glasses, the density, the molar volume, the refractive index and the optical absorption were investigated. The results indicates that density and refractive index of glasses increased with increasing Sm₂O₃ concentration. The optical absorption spectra were measured in the range wavelength 350 - 1600 nm and the optical band gaps were determined. It was observed that the molar volume and optical band gap decreased with the increases of Sm₂O₃ concentration. Moreover, photoluminescence spectra under 470 nm shows four emission bands centred at 559.9, 596.2, 643.6 and 703.5 nm which correspond to 4G_{5/2} - 6H_{5/2}, 6H_{7/2}, 6H_{9/2}, 6H_{11/2} transitions of Sm³⁺ ion were observed. This composition could be useful for solid state laser materials and various optical devices.</p>
194	<p>Bitty Ansawi, PPD Tuaran; Vincent Pang, Universiti Malaysia Sabah The Relationship Between Professional Learning Community And Lesson Study In Sisc+ Program In Sabah, Malaysia</p>	<p>ABSTRACT This study aims to identify the level of English teachers? perception on professional learning community practices and lesson study application. It also determines the relationship between professional learning community practices and lesson study. This quantitative study involved 98 teachers selected via purposive sampling from selected low performing schools in Sabah. Two scales were adapted from past studies to measure respondents? perception on professional learning community practices and lesson study. Data from the questionnaire were analysed with IBM SPSS 23.0. Findings showed that teachers perceived both professional learning community and lesson study highly. However, supporting condition (school structure), a dimension of professional learning community practices was perceived moderately. It is also shown that professional learning community practices have a significant, positive and strong relationship with lesson study. This study implied that</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>teachers in low performing schools are receptive of these changes and such attitude may become the success factor of SISC+ program in these schools. Key words: Lesson study, SISC+, Professional learning community</p>
195	<p>AIDA AMIRA ZALI, UTM; Ahmad Zuri Sha'ameri, Universiti Teknologi Malaysia Comparison of Whitening Methods for RF power measurement in 1/f Noise</p>	<p>The assumption of white noise to model measurement is not valid since many applications such as in RF power measurement the noise is coloured with 1/f noise spectrum characteristics. With this characteristics, the assumption of independently identically distribution (IID) used in signal detection and estimation becomes not valid. By the whitening process, the 1/f noise characteristics can be converted to be similar to white noise. The analysis results of decimation, linear prediction and Burg algorithm shows that the proposed methods can be done effectively. In decimation, the larger value of samples N, shows that the lower value of variance is produced. For linear prediction, it requires 7 coefficients to produces a variance in the power spectrum magnitude with value of 0.01 while the Burg algorithm only requires 5 coefficients. Both Burg algorithm and linear prediction are more complex due to the need to perform matrix inversion. The decimation is the least complex but it could only meet these requirements if the sample size is more than 300.</p>
196	<p>Syed Hamid Hussain Madni, Faculty of Computing, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia.; Muhammad Shafie Abd Latiff, Universiti Teknologi Malaysia & Faculty of Computing; Shafi?i Muhammad Abdulhamid, Faculty of Computing, Universi OPTIMAL RESOURCE SCHEDULING TECHNIQUE FOR IAAS CLOUD COMPUTING</p>	<p>In cloud computing, for the effective performance of any system, there is a need of effective resource scheduling. A resource scheduling problem in IaaS cloud computing is considered in this paper. Resource scheduling problem is proved to be NP-hard. A recently developed cuckoo search (CS) meta-heuristic algorithm is presented in this paper, to minimize the execution time, makespan and throughput for the resource scheduling in IaaS cloud computing. Simulation results show that CS algorithm outperforms many other meta-heuristic algorithms.</p>
197	<p>Noraihan Afiqah Rawi, Universiti Teknologi Malaysia; Zaiton Mat Isa, Universiti Teknologi Malaysia; Mohd Rijal Ilias, Universiti Teknologi Malaysia; Sharidan Shafie, Universiti Teknologi Malaysia EFFECT OF G-JITTER ON MIXED CONVECTION FLOW OF JEFFREY NANOFUID PAST AN INCLINED STRETCHING SHEET</p>	<p>The unsteady mixed convection flow of Jeffrey fluid past an inclined stretching sheet with the presence of nanoparticles is studied in this paper. The influenced of g-jitter on the fluid flow characteristics is given attention. The velocity and temperature of the inclined stretching sheet are assumed to vary linearly with the distance along the sheet. The governing partial differential equations are transformed into a system of ordinary differential equations and solved numerically using an implicit finite</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>difference method known as Keller-box method. The numerical results of surface shear stress in terms of skin friction coefficient and the heat transfer coefficient in terms of local Nusselt number are obtained and graphically presented. The behaviour of the flow affected by the various physical parameters including the amplitude of modulation, frequency of oscillation, ratio of relaxation to retardation time and nanoparticle volume fraction are discussed in details. Numerical results show that, the effect of nanoparticle volume fraction give rise to the mean values of reduced skin friction and heat transfer coefficient with the influence of amplitude of modulation and frequency of oscillation.</p>
198	<p>Naimat Eleburuike, Universiti Teknologi Malaysia; Wan Azelee Wan Abu Bakar, Universiti Teknologi Malaysia; Rusmidah Ali, Universiti Teknologi Malaysia Zirconia-Modified Titanium Oxide Nanotubes With Enhanced Photocatalytic Activity</p>	<p>One-dimensional (1D) nanostructures of titanium oxide (TiO₂) have been reported to possess higher surface area and excellent electronic properties compared to the zero-dimensional (0D) TiO₂ nanoparticles. In this study, TiO₂ nanotubes (TiO₂ NTs) were prepared by hydrothermal method, modified with different amounts (10 to 30 wt(%) of zirconia (ZrO₂) by impregnation method and calcined at three different temperatures (600, 700 and 800 °C). The synthesized ZrO₂-TiO₂ NTs were characterized by X-ray diffraction (XRD), field emission scanning electron microscopy (FESEM), energy dispersive X-ray (EDX), X-ray photoelectron spectroscopy (XPS) and nitrogen adsorption. FESEM-EDX confirmed the formation of TiO₂ NTs and the impregnation of ZrO₂ on the TiO₂ NTs. XRD revealed that modification of TiO₂ NTs with ZrO₂ enabled the presence of mixed phases of anatase and rutile TiO₂ on ZrO₂-TiO₂ NTs calcined at 800 °C. The photocatalytic screening under UV light for 5 h employing paraquat dichloride as the substrate revealed that the best calcination temperature for TiO₂ NTs and ZrO₂-TiO₂ NTs was 800 °C and ZrO₂-TiO₂ NTs showed enhanced photocatalytic activities compared to TiO₂ NTs. Pure TiO₂ NTs, 10:90 ZrO₂-TiO₂ NTs, 20:80 ZrO₂-TiO₂ NTs and 30:70 ZrO₂-TiO₂ NTs, all calcined at 800 °C achieved 61.14, 72.35, 86.75, and 78.11% degradation of paraquat dichloride, respectively. The enhanced photocatalytic activities of ZrO₂-TiO₂ NTs can be attributed to the synergistic effects caused by the intimate interaction of ZrO₂ with TiO₂</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
199	Morteza Mohsenipour, Universiti Teknologi Malaysia; Kumars Ebrahimi, University of Tehran; Shamsuddin Shahid, Universiti Teknologi Malaysia; MAHIUDDIN ALAMGIR, UNIVERSITI TEKNOLOGI MALAYSIA; Eun Sung Chung, Seoul National University of Science and Techn NUMERICAL SIMULATION OF GROUNDWATER NITRATE POLLUTANT IN POROUS	NTs leading to efficient charge separation and an increase in the overall quantum yield. The global population has been projected to increase by 30%, from over 6 billion in 2000 to 7.8 billion by 2025. More food will be required to feed the growing population. Nitrogen fertilizers are most important for the growth of plants and hence, are used in highest proportions globally. A significant portion of this nitrogen seeps into deeper layer of soil due to percolation, and ultimately joins the groundwater. In many countries of the world, it is the only source of potable water. This indicates that groundwater will continue to play a crucial role in agro-economy and people's livelihood in many countries of the world. Therefore, the objective of this study was numerical modelling of nitrate movement in saturated porous media. Two different methods, Alternative direction implicit (ADI) and Galerkin finite difference scheme, were used to solve two-dimensional governing equation and empirical Richard's equation to simulate nitrate movement, respectively. The results showed that good agreement between both methods of nitrate movement simulation and experimental results. Furthermore; the results revealed that ADI method simulation had better agreement to experimental data. Therefore, it can be remarked that the numerical simulation program developed in the present study is capable to estimate nitrate concentration. It is expected that the findings of the present study will help in groundwater monitoring, pollution control and management.
200	Mu'azu Musa, UTM Johor Bahru; Sudin Shahdan, UTM Johor Bahru; Zaharuddin Mohamed, UTM EFFECT OF DRAG FORCE ON INDIVIDUAL VEHICLE OF HETEROGENEOUS CONVOY	The importance of study of air drag force on a vehicle cannot be over emphasize due to its significant effect on the overall dynamics in heterogeneous vehicle convoy. This paper describes the effect of air drag force with respect to change in vehicle mass. Newton's second law and hook's law were both used to define the vehicle motion through the concept of mass, spring and damper architecture. The vehicle model was built on Maple and MapleSim2015 multi-body platform to permit parametrization, real-time visualization of the vehicle behavior and simulation. It was found that the mass of a vehicle in motion is inversely proportional to air drag force on the vehicle, which can be justified from Figures 1-3 and the vehicle dynamics analysis. This alone shows the necessity to include the effect of air drag

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		force on any moving object for better and more precise result.
201	Stella Orakwue, WCC; Razali Ngah, Universiti Teknologi Malaysia; Norhudah Seman, Universiti Teknologi Malaysia PERFORMANCE OF ANTENNA ARRAY WITH BUTLER MATRIX AT 2.6 GHZ 4G AND 28 GHZ 5G APPLICATIONS	This paper presents the gain bandwidth characteristic of antenna array with Butler matrix (BM) beamforming network (BFN) designed at 2.6 GHz 4G and 28 GHz 5G applications. In the study, 1 _ 2 and 1 _ 4 antenna array with 2 _ 2 and 4 _ 4 BM BFNs respectively are designed both at 2.6 GHz and 28 GHz frequency bands and their radiation characteristics compared. From the results, the designs at 2.6 GHz have narrow band operation of conventional BM, while the designs at 28 GHz frequency band achieved wide gain bandwidth across the band of operation in terms of 10 dB return loss criteria. Array gain up to 15.9 dBi can be achieved at 28 GHz by increasing the radiating element. Therefore BM BFN is a promising solution to wide bandwidth, high gain beam steering at millimeter wave frequency band.
202	Auwal Mahmoud Fabrication of FTO coated glass into modified conductive electrode via electrochemical deposition of PAni/Fe3O4 nanocomposites for immobilization of biomarker	Magnetic PAni composites have been a good choice to construct advanced composite materials owing to their catalytic, magnetic and electrical properties. These properties can be used for signal transduction. A modified electrode was constructed by modification of an FTO glass with PAni/Fe3O4 nanocomposites synthesize through ultrasonic irradiation method. Cyclic voltammetry was used for the deposition of PAni/Fe3O4 onto FTO coated glass. The experiment outcome indicated that a thin layer of 60nm thick was form on the FTO glass at range of -1.5 to 0.5 V at 0.10Vs-1 for 10 cycles in a solution of 120 Åµl of PAni-Fe3O4 nanocomposites. The nanocomposites are found to be stable and electrically conductive. Electrochemical impedance changes occur only after PAni/Fe3O4 bound to surface of bare FTO, confirming the deposition and indicating that the new modified electrode can be used as a transducing matrix for the immobilization of biomarker.
203	Mohamad Nizam Bin Arshad Nizam, Universiti Teknologi Malaysia; NOOR AZEAN BINTI ATAN ATAN, Universiti Teknologi Malaysia; ABDUL HALIM BIN ABDULLAH ABDULLAH, Universiti Teknologi Malaysia; Mahani Mokhtar, Universiti Teknologi Malaysia; Mohd-Salleh Abu, Un LEARNING THE STRATEGY OF REASONING THROUGH MARZANO	Reasoning skills are very important in encouraging students to think more critically and logically, as depicted in the Malaysian Education Development Plan (2013-2025). Therefore, this study looked into improving the level of reasoning skills among students for a topic in the Additional Mathematics subject, known as Differentiation, through reasoning learning strategy. The study participants consisted of a total of 31 students from a

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	<p>DIMENSIONAL MASTERY LEARNING MODEL AMONG FORM FOUR STUDENTS FOR THE TOPIC OF DIFFERENTIATION</p>	<p>secondary boarding school in Johor, selected through a purposive sampling method. A pre-test was carried out for the participants, from the advanced level, followed by a number of repetition tests, before the post-test assessment was conducted. The data collection for this study employed a set of Reasoning Test Questions on Differentiation (RTQD) and 10 sets of learning activities on Differentiation based on modified Marzano Rubric for Specific Task of Situations (1992). This dimension involved four types of reasoning skills, namely, comparison, classification, inductive, and deductive. The survey data, through paired samples t-test, revealed a significant difference between the mean scores in pre-test and post-test ($p < 0.05$). In addition, the paired sample t-test showed a significant difference on the level of reasoning among students from each construct in the reasoning skills before and after using this module. In conclusion, the Marzano Model of Dimensional Learning (1992) is a thinking skill model that can help improve students' reasoning skills. The model covers analysis aspects of what has been learned by implementing the process of identifying reasons, which will help students to add and expand their knowledge. The findings also implied that, the processes of teaching and learning play an important role in ensuring students' capability to emphasize on the implementation process of reasoning skills. KEYWORDS: Reasoning skills, Dimensional model of mastery learning, Topic differentiation</p>
204	<p>MAHIUDDIN ALAMGIR, UNIVERSITI TEKNOLOGI MALAYSIA; Tarmizi Ismail, Universiti Teknologi Malaysia; Morteza Mohsenipour, Universiti Teknologi Malaysia; Shamsuddin Shahid, Universiti Teknologi Malaysia BIVARIATE FREQUENCY ANALYSIS OF FLOOD VARIABLES USING COPULA IN KELANTAN RIVER BASIN</p>	<p>A copula based methodology is presented in this study for bivariate flood frequency analysis of Kelantan river basin located in Northeast Malaysia. The joint dependence structures of three flood characteristics, namely, peak flow (Q), flood volume (V) and flood duration (D) were modelled using t-Copula. Various univariate distribution functions of flood variables were fitted with observed flood variables to find the best distributions. Cumulative joint distribution functions (CDF) of peak flow and volume (Q-F), peak flow and duration (Q-D) and volume and duration (V-D) revealed that return period of joint return periods are much higher compared to univariate return period. The joint probabilities of occurrence of 0.8, 0.6, 0.4, 0.2 and 0 can be expected when flood duration greater than 65 h, 54 h, 46 h, and 32 h, and the flood volume</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		higher than 0.62 km ³ , 0.33 km ³ , 0.25 km ³ , and 0.22 km ³ respectively.
205	Sunday Olajide, UTHM TRIANGULAR CONSEQUENCES OF RESIDENTIAL NEIGHBOURHOOD CRIME	<p>TRIANGULAR CONSEQUENCES OF RESIDENTIAL NEIGHBOURHOOD CRIME S. E. Olajide¹, M. Lizam² and K. B. Akinbola³ 1, 2,3 Department of Real Estate, Faculty of Technology Management and Business, Universiti Tun Hussien Onn Malaysia, (UTHM) Parit Raja, Batu Pahat, Johor., Malaysia. (E-mail: gp140026@siswa.uthm.edu.my; lizam@uthm.edu.my; akbolayemi@gmail.com)</p> <p>ABSTRACT The responses of government, public, researchers and professionals alike could have been boosted in the need to tenaciously tackle property crime if there are enough research and publication on the diverse consequences of property crime. It is the intention of this article to critically evaluate the consequences of residential neighbourhood crime. This was done with reference to existing relevant published research works in this direction. The review revealed a triangular nature of the consequences in that it burdens on the property and its environs; on government and its agencies and thirdly on the residents. This paper agrees with the position that the evil effect of property crime could be alleviated only when the stakeholders concerned are awake to its consequences thereby enhancing housing sustainability. KEYWORDS: Consequences; Government; Property; Residents; Residential neighbourhood crime.</p>
206	Mohammed Abdulhameed, Universiti Teknologi Malaysia; Emad Hussien, University Of Kerbala; Mohd Othman, Universiti Teknologi Malaysia POROUS CERAMIC HOLLOW FIBER MEMBRANE SUPPORT PREPARED FROM LOW-COST MATERIALS	<p>In this work, the hollow fiber supports have been prepared from local kaolin and carbonate calcium by phase inversion and sintering technique. The choice of these raw materials due to its common occurrence and good forming. A suspension was prepared by mixing of Malaysian kaolin and carbonate calcium with an organic solvent (N-methyl-2-pyrrolidone) and a polymer binder (polyethersulfone). The suspension was subsequently extruded through a spinneret with water used as the coagulant bath to solidify the suspension into hollow fibres. The prepared hollow fiber supports were sintered at 1300 °C. The sintered hollow fiber supports were characterized by bending test, gas permeation, porosity and scanning electron microscopy analysis. Our findings demonstrate that the carbonate calcium (CaCO₃) addition to kaolin has a positive effect on the porosity of supports compared to those prepared from</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		kaolin alone in term of high flux through the membrane. Moreover, the porosity ratio of sintered support was 55%. According to the results, the sintered hollow fiber support (porosity of 55% and mechanical strength 67 Mpa with high gas permeability $85.43 \times 10^{-5} \text{ mol. m}^{-2} \cdot \text{Pa}^{-1} \cdot \text{s}^{-1}$) was consider as promising support for membrane applications.
207	Ahmad Qushairi Mohamad, Universiti Teknologi Malaysia; Ilyas Khan, Majmaah University Saudi Arabia; Nor Athirah Mohd Zin, Universiti Teknologi Malaysia; Zulkhibri Ismail, Universiti Malaysia Pahang; Sharidan Shafie, Universiti Teknologi Malaysia EFFECT OF RAMPED WALL TEMPERATURE ON UNSTEADY MIXED CONVECTION FLOW OF ROTATING SECOND GRADE FLUID IN POROUS MEDIUM	The effects of ramped wall temperature, rotation and porosity on mixed convection flow of incompressible second grade fluid are studied. The momentum equation is modelled in a problem of rotating fluid with constant angular velocity subjected to initial and oscillating boundary conditions. The energy equation is also introduced. Some suitable non-dimensional variables are used to write equations into non-dimensional form. Laplace transform method is used to solve these equations in order to obtain the analytical solutions of velocity and temperature profiles. Computations are carried out and presented graphically to analyse the effect of second grade fluid parameter, rotation parameter, porosity parameter, Prandtl number and Grashof number on the profiles. It is found that, for larger values of porosity parameter, the fluid velocity will increase for both primary and secondary velocities. The results also show that, velocity and temperature for ramped wall temperature are lower compared to isothermal temperature. It is worth to mention that, the exact solutions obtained in this study can be used to check correctness of the results obtained through numerical schemes.
209	Ahmad Firdaus Yosman, Universiti Teknologi Malaysia; Markus Holzer, University of Glessen; Bianca Truthe, University of Giessen; Fong Wan Heng, Universiti Teknologi Malaysia; Sherzod Turaev, International Islamic University Malaysia Two Variants of Bonded Parallel Insertion Systems and Their Generative Power	Insertion is an operation in formal language theory that generalizes the operation of concatenation of words in a language, where its variants allow words to be added into any place in another word in different ways. Parallel insertion is a variant of insertion that simultaneously adds words between all letters of a word and also at the right and left extremities. In previous research, restrictions have been imposed on the rules of the operation of insertion to introduce a new variant, called bonded insertion systems, which include bonded sequential and parallel insertions. Motivated by the atomic behaviour of chemical compounds in the process of chemical bonding, the generative power of bonded insertion systems has been investigated where a language hierarchy was obtained. In this paper, we introduce new variants of bonded

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		parallel insertion systems, namely bonded Indian parallel insertion systems and bonded uniformly parallel insertion systems. Here, some results regarding the generative power of these new systems are presented and a language hierarchy is constructed.
211	Waseem Alkelani, UTM; Hadina Habil, Universiti Teknologi Malaysia Cross-Cultural Adaptation And competence among international students in UTM	Most of the previous studies attempted investigate intercultural communication and competence from the students? perspectives. Other studies were done on adaptation and adjustment reporting the experiences of expatriates in this regard. However, the current study is one of the few studies investigating adaptation through the period of intercultural communication. For that purpose, in addition to investigate Intercultural communication and competence from the perspectives of local and international students, international students are going to be classified into three groups based on the years they have spent in Malaysia. The majority of studies in this field used either qualitative or quantitative approaches; however, this study is adopting the mixed method approach to come up with rich data by using both questionnaires and in-depth interviews. The current study is systematic in terms that it will use the theory of cross-cultural adaptation as the theoretical framework to investigate the issues in hand. Three components of the cross-cultural communication model are going to be highlighted and investigated in the study namely: social communication, personal communications and predispositions. Using thematic analysis, the study is expected to result in a model of cross-cultural adaptation clarifying the different phases of adaptation through the different stages of development.
212	NUR FATIN SULAIMAN, UNIVERSITI TEKNOLOGI MALAYSIA; Wan Azelee Wan Abu Bakar, Universiti Teknologi Malaysia; Rusmidah Ali, Universiti Teknologi Malaysia PHYSICOCHEMICAL AND CATALYTIC ACTIVITY STUDY OF CALCIUM BASED METAL OXIDE IN TRANSESTERIFICATION REACTION OF LOW-GRADE COOKING OIL TO BIODIESEL	Biodiesel is commonly produced by transesterification of vegetable oil that was synthesized using homogeneous base catalysts such as NaOH and KOH. These catalyst, however, dissolved into the vegetable oil and a large amount of water is required to remove the homogeneous catalyst. As a result, saponification sometimes occurs and can lower the biodiesel quality. This research thus focused on the use of heterogeneous base alkaline earth metal oxide incorporate with transition metal oxide catalyst supported on alumina that make the biodiesel easily separated, low cost and environmental friendly. The bimetallic oxides catalyst supported on alumina were prepared by wet impregnation

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>method varied with different temperatures, number of alumina coatings and dopant ratio to based. The prepared Cr/Ca/Al₂O₃ samples were characterized using Brunauer Emmett Teller (BET), Field Emission Scanning Electron Microscopy (FESEM) and CO₂-Temperature Programmed Desorption (CO₂-TPD). CO₂-TPD results showed higher basicity occurs when the catalyst, Cr/Ca/Al₂O₃ was calcined at 700°C which gave 3.38146 mmol/g. Cr/Ca (10:90)/Al₂O₃ with calcination temperature of 700°C had been found to be the potential catalyst for the transesterification reaction of biodiesel. The production of biodiesel was analyzed by using Gas Chromatography-Flame Ionization Detector (GC-FID). From this observation, the optimum conditions for transesterification reaction achieved with 6 wt.% catalyst loading at 3 hours with 1:18 ratio oil to methanol which gave the highest percentage yield of biodiesel, 97.9%.</p>
213	<p>Mohamed Elaghazli Hamza Khalil RADIO PROPAGATION AND TROPOSPHERE PARAMETERS INFLUENCE FOR MICROWAVE LINKS IN SUDAN</p>	<p>Microwave links have to be designed such that propagation effects do not reduce the quality of the transmitted signals. Measurements and the derived propagation parameters are analysed and discussed. Metrological parameters data(Visibility, Temperature, Relative humidity and Atmospheric Pressure) gotten from the Sudan Meteorological Authority (SMA) are used to calculate the daily averages of refractivity for last twenty a year™s 2006 -2015. The meteorological data collected were computed to obtain the refractivity and earth radius factor. The results of the diurnal variation of refractivity based on assessment of relative humidity, dust cloud, rain rate, temperature and atmospheric pressure made across of covered all-region in Sudan, Port Sudan (18° 25' N, 37° 25' E), Khartoum (15° 33' N, 32° 31' E), Dongla (19° 10' N, 30° 29' E), Elfashir (13° 28' N, 25° 21' E), and Wad Madani (14° 23' N, 33° 32' E), is presented in this study. Radio refractivity and attenuation signal strength are inversely related with ranges of 390 and 405 annual in different stations respectively. Results obtained ascertained that each atmospheric parameter has a role to play in refractivity with humidity as the major factor that is having more influence than other factors. The main contribution of this study improves future planning of the radio links in the study area.</p>
214	<p>Norhasyimah Mohd Kamal, UTM; Wan Azelee Wan Abu Bakar, Universiti Teknologi</p>	<p>Production of biodiesel is a promising sustainable renewable energy resource that can</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	Malaysia; Rusmidah Ali, Universiti Teknologi Malaysia SYNTHESIS, CHARACTERIZATION AND CATALYTIC ACTIVITY STUDY OF Ni/Mg/Al₂O₃ FOR TRANSESTERIFICATION OF LOW GRADE COOKING OIL	be used to solve the problem of fossil fuel depletion and environmental pollution. This study was aimed to synthesize and characterize series of heterostructure Ni/Mg/Al ₂ O ₃ catalysts with different parameters to test their effectiveness towards the catalytic transesterification reaction. All the catalysts were synthesized by wet impregnation method supported on alumina. Three parameters were studied namely calcination temperatures, dopant ratios to based and numbers of alumina coating. The activity of the catalyst in transesterification reaction was evaluated at operating condition of reaction temperature 65_C, 3 hours reaction time, catalyst loading 6% w/w and oil to methanol molar ratio was 1:24. The potential catalyst was characterized by BET, TEM and CO ₂ -TPD analysis. Furthermore, the performance of the catalyst was evaluated by GC-FID analysis. From the results, it showed that, Ni/Mg(20:80)/Al ₂ O ₃ catalyst calcined at 800°C and 3 times alumina coating was revealed as the most potential catalyst which gave 92.53% biodiesel conversion.
216	Wong Keng Yinn, Universiti Teknologi Malaysia; Haslinda Mohamed Kamar, Universiti Teknologi Malaysia; Nazri Kamsah, Universiti Teknologi Malaysia; Fazila Mohd Zawawi, Universiti Teknologi Malaysia; Md Nor Musa, Universiti Teknologi Malaysia; Muhd Suhaimi FIELD MEASUREMENT OF CLEANROOM PARAMETERS IN HOSPITAL'S VASCULAR INTERVENTIONAL RADIOLOGY LABORATORY	Vascular Interventional Radiology (VIR) laboratory is one of the hospital facilities which requires cleanroom criteria to reduce infection risks. In the VIR laboratory, laparoscopic surgery or known as minimally invasive surgery is performed with the use of video imaging. This paper describes a standard practice of conducting field measurements in an ISO Class 8 VIR laboratory. The field measurements have been carried out at a rest condition which complies with ISO 14644-1 standard. The lab is equipped with High-Efficiency Particulate Air (HEPA) filters and a vertically downward unidirectional flow system. A TSI 9310-02 airborne particle counter was used to measure three different sizes of particles namely PM 0.5, PM 1.0 and PM 5.0. Whereas, an Alnor EBT 731 manometer was used to measure the average airflow velocity and pressure differential. The recorded values of PM 0.5, PM 1.0 and PM 5.0 concentrations are 923351 particles/m ³ , 56963 particles/m ³ , and 551 particles/m ³ , respectively. While, the average supply air velocity and pressure differential are 0.43 m/s and +0.79 Pa, respectively.
217	MUNA YOUSUF, UTHM; Eta Wahab, UTHM	Mobile banking is among the latest in a series of recent mobile technological wonders. Although automated teller machine (ATM) and

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	<p>TRUST OF MOBILE MONEY IN DEVELOPING COUNTRY: CASE OF SOMALILAND MOBILE BANKING</p>	<p>Internet banking offer effective delivery channels for traditional banking products, but as the modern delivery channel established by retail and banks in many developed and developing countries, mobile banking is likely to have significant effects on the market. However, mobile banking like other online transactions involve great uncertainty and risk, thus, customers need to build trust to alleviate perceived risk and facilitate their transactions. Owing to its significant role, trust has received considerable attention in information systems (IS) research. However, little research has been done the success of this technology, especially when investigating customer satisfaction. This study investigates the impact of company reputation and structural assurance on customer satisfaction with trust playing as a key role. The target population is the users of mobile banking in Somaliland where mobile banking is at peak prevalence. Partial Least Square (PLS) is the analysis tool of choice. The findings shown that company reputation and structural assurance have significant direct effect on trust. Theoretical contributions of the findings are discussed and suggestions for future research are presented.</p>
218	<p>MUNA YOUSUF, UTHM; Eta Wahab, UTHM MODELING CUSTOMER SATISFACTION IN MOBILE BANKING IN SOMALILAND: A REVIEW OF THEORIES ON TECHNOLOGY ACCEPTANCE</p>	<p>Mobile banking is the latest technology offered by service providers that allows customers to conduct banking transactions via mobile terminals. Mobile banking like other online transactions involve great uncertainty and risk, thus, customers need to build trust to alleviate perceived risk and facilitate their transactions. Owing to its significant role, trust has received considerable attention in information systems (IS) research, especially in the e-commerce context. However, little research has been done the success of this technology, especially when investigating customer satisfaction. The main issue for service providers is that the current understanding of determinants of mobile banking customer satisfaction, which affects sustained usage, is limited. In this study, we review the theories and models related to the technology acceptance and success. We propose some modifications to the DeLone and McLean Model (2003) of Information Systems Success in light of descriptive and relational studies, whereby the universal model may be applicable in post adoption customer satisfaction context. Hence, using the findings of this study, service providers in Somaliland</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
219	Fosi Kofal, UTM; Azeman Mustafa, UTM; Ahmad Ismail, Universiti Teknologi Malaysia EXPERIMENTAL STUDY OF PVDF-CACO3 HOLLOW FIBER MEMBERANE CONTACTOR FOR CO2 REMOVAL	<p>can improve their mobile banking strategies to achieve higher retention rates of existing users.</p> <p>Porous hydrophobic polyvinylidene fluoride (PVDF) composite hollow fiber membranes were fabricated via non-solvent induced phase separation by dispersing hydrophobic calcium carbonate (CaCO₃) nano-particles in the polymer matrix with lithium chloride (LiCl) as a pore-forming agent. The effect of nano-particle loadings on the morphology, structure and performance of the spun membranes were investigated. The fabricated membranes showed an asymmetric structure of a sponge-like layer sandwiched between two finger-like layers. The incorporation of hydrophobic nano-particles into the polymer matrix enabled the formation of more abundant narrower finger-like pores in composite membranes compared to plain PVDF membrane. Moreover, the addition of nano-particles had significantly enhanced the contact angle, porosity and critical entry pressure of water of the composite membranes. As a result, the membranes exhibited high permeability and hydrophobicity which are the desirable characteristics of membranes to be applied in contacting processes. In addition, the CO₂ absorption performance of the fabricated membranes was evaluated using a gas-liquid membrane contactor system. The CO₂ absorption flux was improved by increasing the mixing ratio of CaCO₃ and PVDF. Peak absorption performance of 1.52 Å— 10⁻³ mol m⁻² s⁻¹ at the absorbent flow rate of 300 ml/min was achieved.</p>
223	Yunusa Badiru, UTM -Johor CONSOLIDATING THE CONSTRUCTION INDUSTRY THROUGH THE INCORPORATION OF BUILDING INFORMATION MODELLING TO HIGHER EDUCATION	<p>Building Information Modelling (BIM) as a powerful set of design, construction and management technical knowledge process, tools and technology, that its application are significant in project delivery lifecycle. This have been identified as an antidotes for problems bedevilling the construction industry for ages. Conversely, lack of the knowledge of BIM and industry readiness for its adoption has been identified as a major hindrance that limits it wider adoption. To consolidate the construction industry to take maximum advantage of this technology, the higher education must be part of the paradigm shift, in order to equip the immediate and next generation of graduates with BIM knowledge. This paper look into prominent works of researchers in order to have a good account of problems bedevilling the adoption of BIM in the industry, efforts made so</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>far and effective antidotes to easy out these problems. Also for this study, a survey carried out among the practitioners in the construction industry also revealed that BIM adoption solely rest on the effective BIM inclusion in higher education. This paper therefore, submits that BIM integrated into higher education is a tool for the consolidation of construction industry to earn maximum advantages of BIM that have been unfolding.</p>
224	<p>Nurhidaya Mohamad Jan, Universiti Teknologi Malaysia STRUCTURAL SUBCLASS OF PLACE-LABELLED PETRI NET CONTROLLED GRAMMARS: STATE MACHINE</p>	<p>A place-labelled Petri net controlled grammar is, in general, a context-free grammar equipped with a Petri net and a function which maps places of the net to productions of the grammar. The languages of place-labelled Petri net controlled grammar consist of all terminal strings that can be obtained by parallel application of the rules of multisets which are the images of the sets of input places in a successful occurrence sequence of the Petri net. In this paper, we investigate the structural subclasses of place-labelled Petri net controlled grammar which focus on the state machine. We also establish the generative power of state machine of place-labelled Petri net controlled grammars.</p>
225	<p>Muhammad Falihin Jasmi, Uitm Shah Alam ANALYSING THE POTENTIALS AND VALUES OF PUBLIC ART IN THE URBAN ENVIRONMENT: STAKEHOLDERS? PERSPECTIVES (CASE STUDY IN JOHOR BAHRU CITY CENTRE).</p>	<p>Public art encompasses variety of forms, materials and processes. In Malaysia, there is presently an unprecedented interest on public art and its installation being commonly found in the major cities. Notwithstanding the increasing interest, however, the locality and rationale of public art integration are widely debatable. Therefore, this paper aims to explore the impacts of public art on the urban environment towards liveable city, while preserving the cultural and heritage values in Johor Bahru City Centre. The research methodology design is constructed on data gained from both quantitative and qualitative method; (i) survey questionnaires for public and (ii) in-depth interview with related organizations. Results shown that public were not acquainted with the term of 'public art' itself, inversely they agreed that it significantly contributed to the city and the community. The representative of local authority agreed that structuring guidelines for public art will be the most effective approach to sustain those artworks. The outcome of this paper is hoped to provide a better understanding on public art among the stakeholders and its rationale on urban environment cooperatively. Consequently, it could assist multi-disciplinary</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		professionals to integrate appropriate artworks and approaches towards an improved urban environment and experience.
226	Mohammed AL-SHARAFI, UMP UNDERSTANDING ONLINE BANKING ACCEPTANCE BY JORDANIAN CUSTOMERS: THE EFFECT OF TRUST PERCEPTIONS	Trust is essential for all online transactions adoption and usage including online banking. In this paper, online banking trust was addressed through empirical evidence from the survey conducted in Jordanian commercial banks. An extended Technology Acceptance Model (TAM) framework used in this study. Partial Least Squares (PLS) to analyze the data, which was composed of 198 questionnaires conducted with bank's customers in Jordan. The results confirm that trust increases if users perceive online banking to be useful whereas perceived ease of use fails to predict Jordanians' intention to accept and use online banking. The findings from this study are useful for policy makers, banking sectors and financial practitioners to enhance the use of online banking services among Jordanians.
227	Azlina A.Rahman, UTM; Norasykin Mohd Zaid, Universiti Teknologi Malaysia; Hasnah Mohamed, Universiti Teknologi Malaysia; Zaleha Abdullah, Universiti Teknologi Malaysia; Baharuddin Aris, Universiti Teknologi Malaysia THE EFFECTIVENESS OF STUDENTS' ENGAGEMENT IN FLIPPED CLASSROOM	Flipped classroom, the 21st century learning has proven itself to be effective in its implementation in the field of education, particularly at the secondary school level. However, not many studies have been conducted to measure the students' overall engagement in the implementation of the method, for Mathematics. Thus this study was carried out to measure the said involvement of students in behavioural, affective and cognitive terms, based on a modified questionnaire. The findings were analyzed, based on overall students and also gender. The study found that the majority of students were engaged in the behavioural aspect. Surprisingly however, the implementation of the flipped classroom study was also able to get a minority of the students involved in all the three aspects of behavioural, affective and cognitive construct. The conclusion derived from this study was that, the implementation of the flipped classroom was capable of providing active learning by getting the students involved in the classroom, regardless of gender.
228	Baheih Mohajeri, UTM Challenges to Women's Participation in Senior Administrative Positions in Iranian Higher Education	The study explored the challenges of women's participation in senior administrative positions from the perspective of Iranian women administrators in higher education. Data were collected based on semi-structured interviews with 20 women academician administrators in senior

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>administrative positions. The findings indicated that challenges ranged from organizational to, societal, and individual factors, Individual factors were related to personality traits such as, work-family balance issues, and a lack of self- confidence. At the organizational levels, difficult relationships at work and the old boysâ€™™ network, discriminatory organizational culture and human resource practices were perceived to be a hindrance, while at the societal level, gender role stereotypes and social attitudes towards women were viewed as key challenges to women participation in senior administrative positions.</p>
229	<p>Nadzirah Mohamad, UTM The Effect of Environmental Stress Physiology on Nannochloropsis sp. Cultivation Growth Rate</p>	<p>The environmental stress is causing effects towards downstream and upstream process of microalgae. Previous studies identified that environmental stress such as temperature, light intensity and salt concentration were able to provide changes in growth rate of microalgae. Thus, this research was carried out to investigate the effect of environmental stress towards the growth rate of Nannochloropsis sp. in a cultivation process. The cultivation of Nannochloropsis sp. was performed indoor (18 _ 21 °C; fluorescence; distilled water; 24:0 light-dark; 500 ml conical flask) and outdoor (24 _ 33 °C _ day & 22 - 25 °C night; solar; 12:12 light-dark; 10 L container) for 12 days. The growth rate results obtained from optical density (spectrometer) and number of cells analysis (cell count by using a microscope). The results showed that indoor cultivation has better growth rate compared to outdoor. This experimental work results also larified that the environmental stress obtained a more consistent growth rate of Nannochloropsis sp. although it does not elevate its value. It was suggested to alter several related experimental variables in order to increase the growth rate of Nannochloropsis sp. The findings managed to prove that environmental stress is one of the important factors that need to be considered in deciding location and cultivation conditions for microalgae.</p>
231	<p>Cici Maarasyid, Universiti Teknologi Malaysia; Ida Idayu Muhamad, Universiti Teknologi Malaysia; Nik Azmi Nik Mahmood, Universiti Teknologi Malaysia; Zulfansyah Muchtar, University of Riau THERMOGRAVIC ANALYSIS OF EUCALYPTUS LEAVES AS A SOLID FUEL FEEDSTOCK</p>	<p>Eucalyptus leaves (EL) from the litter fall of Eucalyptus plantation could be an important sources of biomass energy. In the present work, thermochemical properties of EL were investigated using thermogravimetric analysis (TGA). It was determined by heating samples from room temperature to 850 oC at heating rate of 10 oC per minutes under nitrogent</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>atmosphere. The ultimate and proximate analysis revealed that EL has high volatile matter (VM) content and caloric value (CV) was 17.26 MJ/kg. Furthermore, TGA result indicated that ignition temperature of EL was lower than other biomasses. Devolatilization of EL commenced at 119 oC with a peak of devolatilization temperature at 326 oC which is resulting in 68% of weigh loss.</p>
237	<p>Norhaslina Jumadi, UNIVERSITI TEKNOLOGI MALAYSIA THE POTENTIAL OF SUSTAINABLE COHOUSING TO SUPPORT SOCIAL INTERACTION FOR ACTIVE AGING NEIGHBORHOOD: A CONCEPTUAL FRAMEWORK</p>	<p>Malaysian will be expected to reach ageing population status by year 2030 where the numbers of citizen age of 60 and over will recorded nearly at 15%. It may result to the various sectors in preparing their needs including to provide the best settlement. Cohousing can be considered as an alternative for intentional living community yet to resolve the problems of isolation and loneliness within ageing neighborhood. There are numbers of scholars deliberate this model as a modern housing concept and yet to be believes as one of the sustainable medium in enhancing social interaction. However the successfulness of the implementation to this cohousing model and the potentialities of its elements to support the social outcome and sustainable living for active aging community are need to elucidate. This article draws attentions on how cohousing can support the social interaction in community neighborhood and provide a conceptual framework in implementing this model for active aging community. This research will gain existing literature on cohousing and social interaction through contents analysis and assess data from various dimensions, such as the concept, elements and the successfulness criteria of cohousing model to neighbourhood design. The findings will illustrated in the form of conceptual framework model and will be useful for all property practitioners to enhance their understanding of cohousing approach in supporting social interaction among the neighbourhood especially for active aging community.</p>
240	<p>Pang Elvin, UTM; Nik Intan Norhan Bintin Abdul Hamid, UTM OWNERSHIP STRUCTURE, CORPORATE GOVERNANCE AND FIRM PERFORMANCE</p>	<p>With intention to identify the important components that applied in the reforms of the Malaysia corporate governance, a study is needed as a tool to proof whether the ownership structures and corporate governance practices are truly influenced firm performance. The purpose of the study is to investigate the relationship between firms' ownership structures, corporate governance practices and</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>firm performance. Specifically, this study narrows the ownership structures categories into; institutional, government, family, foreign, managerial and concentrated. Besides, this study focuses on ten corporate governance components which include board structure, CEO duality, board size, independent board of directors, directorsâ€™™ professionalism/qualification, board meeting, board committee, directorsâ€™™ remuneration, transparency and disclose, merger and acquisition. Firm performance will be measured in the aspect of accounting profitability- return on asset and return on equity; and market performance- Tobin-Q, price to earnings and price to book value. The participating firms of this study are non-financial public firms that are actively listed in the main market of Bursa Malaysia during the five years period (2010 to 2014). The sample will be tested and analyzed by using empirical quantitative method, linear regression, multiple regression and panel data regression analysis.</p>
241	<p>Sharifah Annirah Syed Abdul Rahman, Universiti Teknologi Malaysia; Dayang Norulfairuz Abang Zaidel, Universiti Teknologi Malaysia; Priit V_ljam_e , University of Tartu, ESTONIA HYDROLYSIS OF CELLOOLIGOSACCHARIDES BY TRICHODERMA REESEI CELLOBIOHYDROLASE 7A</p>	<p>The objective of this study was to analyse the hydrolysis of cellooligosaccharides (cellotriose, cellotetraose, cellopentaose and cellohexaose) catalyzed by Trichoderma Reesei Cellobiohydrolase 7A (TrCel7A). The sugar concentration produced from the hydrolysis of cellooligosaccharides was determined. Purification of TrCel7A from Celluclast? and the analysis of purified TrCel7A were performed. Hydrolysis of cellooligosaccharides DP 3 to 6 by TrCel7A was conducted to produce glucose, cellobiose, and cellotriose which was analysed by HPLC. The result shows that when the soluble cellooligosaccharides (DP 3 to 6) were subjected to hydrolysis by TrCel7A, they were completely hydrolyzed to glucose and cellobiose. Also, cellotriose was formed as a result of hydrolysis of the substrate with DP higher than 4. It is apparent from the data shown that the highest amount of product cellobiose are achieved for all substrates, followed by cellotriose (in the case of DP 5 and 6) and glucose. However, cellobiose concentration for substrate with DP 3 is not able to quantify due to an aggregated peak.</p>
244	<p>Muhammad Azwan Sulaiman, Universiti Tun Hussien Onn Malaysia Management Of Missing Person?S Properties In Maqasid Syariah Dimensions</p>	<p>The missing person issue has recently become the issue of the world, especially after the Malaysian Airlines MH370 tragedy a few years ago. In Islam, the missing person is known as ?Al-Mafqud?. One of the largest issue is how</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>the management of missing person?s properties which can also affect country and their heirs. Management of missing person?s properties is different as compared to management of inheritance properties. Uncertain status of person?s life or death creates the conflict and their property needs to be frozen due to law constraints either in Malaysia civil or syariah law. This phenomenon raises many issues and problems that become increasingly critical and extremely difficult to resolve. Besides, if the muslim?s properties do not develop, it can cause detrimental effect to the muslim community. In Islam, the wastage of wealth resource is highly discouraged because it will cause significant impact to the Muslims. Moreover, if the property is used wisely, it will give a positive impact to the society, economy and education. On that matter, in 1982 National Fatwa Committee has already given the decree that the government has the right to acquire or use any form of property that is not used for public interest. But until now, no effective measures have beentaken by the government to ensure that these issues can be dealt with properly. Hence, this research addresses the management of missing person?s properties in the Maqasid Syariah dimensions</p>
245	<p>Nur Najwa Alyani Mohd Nabil, Universiti Teknologi MARA Lattice Energy Of Urea: Application Of Systematic Cluster Method With Inclusion Of Dispersion Correction</p>	<p>Lattice energy is the energy needed to form crystals of a compound from the individual molecules. It is related to the stability of a compound in the solid state. In this study, systematic cluster method has been applied to obtain the lattice energy of urea. Using this method, the effect of solid state environment is included in a systematic way. Starting from the small clusters containing a few molecules, the largest cluster we studied contains 40 molecules. In order to improve the cluster method results using Gaussian 09 program, correction using the D3 program were included. The results show that, when compared to the experimental value, the lattice energy obtained were under-estimated for all the theoretical levels considered. Generally, application of the systematic cluster method shows decrease in calculated lattice energy as more molecule were included in the clusters and become closer to the experimental value of urea. Of all the levels considered, B3LYP/DEF2-TZVP with correctional terms provide the closer values to the one from the experiment</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
246	<p>Nor Ain Fathihah Abdullah, Universiti Teknologi MARA; Lee Sin Ang, UiTM</p> <p>Effects of Different Deprotonated States of Chelating Agents in The Chelation of Ba, Y and Zr</p>	<p>Perovskite is a class of materials that has received tremendous attention due to its potentials in many technology-related applications. Previous report on the one-pot synthesis of perovskite BaCe_{0.54}Zr_{0.36}Y_{0.10}O_{2.95} (BCZY) did not consider the microscopic interactions between the chelating agents and the metal cations. In this study, we set out the objective to determine the stability of possible structures between the resulting complexation of the two components during the formation of BCZY at microscopic level. Theoretical calculations using Density Functional Theory (DFT), in the level of theory B3LYP with 6-31G and Universal Gaussian Basis Set (UGBS) have been carried out at different deprotonated states of chelating agents. This is according to the results from previous experiments that the formation of the high purity perovskite is more preferable at pH 9, which translates into deprotonated state of more than one H atom for the chelating agents. In our present study, the metal cations of Barium (Ba²⁺), Yttrium (Y³⁺) and Zirconium (Zr⁴⁺) were attached at strategic positions in the chelating agents of citric acid (CA), triethylenetetramine (TETA) and ethylenediaminetetraacetic acid (EDTA). From the resulting binding energies, it was found that, while the chelating agents with deprotonated one H atom can bind the metals, they interact best with metal cations in the form of CA³⁻, TETA⁴⁻ and EDTA⁴⁻ states which is equivalent to pH 6_7 (CA³⁻) and 10_12 (TETA⁴⁻ and EDTA⁴⁻) in the real system. Furthermore, the role of TETA as the chelating agent is probably to bind all metals as all the metal cations considered are found to complex preferably with TETA.</p>
249	<p>Siti Norazimah Bachok, Universiti Teknologi Malaysia; Samira Albaty Kamaruddin, UTM KL</p> <p>Solar Radiation Effect On Indoor Thermal Environment Of Multi-Dwelling Unit In Malaysia</p>	<p>Malaysia is a hot and humid country that receives plenty of sunlight throughout the year. This condition can cause the side of a building that has bad orientation and poor design to become overheat. This paper aims to determine the effects of solar radiation on indoor thermal environment of a selected multi-dwelling unit (MDU) in Nilai, Negeri Sembilan. The hourly global solar radiation (GSR) data from the nearest weather station (KLIA) were obtained from the Malaysian Meteorological Department (MMD). The indoor thermal data of the MDU were measured and then analysed using statistical functions in Excel and Kilog software.</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>The statistical results revealed that solar radiation was higher than indoor temperature in early morning and late afternoon, and the highest solar radiation were recorded within 1 pm to 2 pm. The average recorded solar radiation and indoor temperature were 1.33 MJm⁻² and 29°C, respectively. Even though the average recorded outdoor and indoor humidity during this study were 82% and 74%, respectively, the outdoor humidity is generally lower than the internal moisture. The findings are useful for the benefit of future cooling systems? requirement and restoration. This study significantly investigated the cause and effects of solar radiation on the MDU thermal condition in providing the best solution in maintaining a healthy and sustainable environment. The findings of this study are also beneficial for home buyers in reducing the cost of electricity consumption.</p>
250	<p>Nyangwarimam Ali, University Of Technology Malaysia.; Mohamad Rijal Hamid, Universiti Teknologi Malaysia Tunable Bandpass Filter Using Open-Ended Tapped Stub With Switchable Vertical Resonators</p>	<p>This paper proposes a tunable bandpass filter using an open-ended tapped stub with switchable vertical resonators. The key advantage of using vertical resonators for switching is the simplicity and low insertion loss it provides. The structure used is an open-ended stub attached on one end to the transmission line ($\lambda/2$) to form a T-shaped resonator ($\lambda/4$) having vertical resonators placed across. A pair of the T-shaped resonator is placed on parallel sides of the transmission line. By switching the two vertical resonators on either sides of the transmission line, both the center frequency and the transmission zero can be tuned. The proposed filter was designed with the aid of CST. The design concepts have been verified by fabrication on a low cost FR4 board and measured results. The proposed filter can be tuned to four different frequencies while maintaining a good rejection and low insertion loss of 0.15dB _ 1dB. This filter is suited for modern day communication applications since it shows good rejection and can be operated in four different frequency bands.</p>
251	<p>Muryani Arsal, Universiti Teknologi Malaysia; Nik Intan Norhan Bintin Abdul Hamid, UTM The profit Efficiency of Indonesia Islamic banking</p>	<p>This study investigates the profit efficiency of Indonesia Islamic banks during the period 2011-2014. The sample comprised of 11 domestic and foreign Islamic banks. We employ non parametric Data Envelopment Analysis (DEA) method to compute the profit efficiency levels, through of intermediation approach. Furthermore, this study considering input and output oriented measures while deposits, labour</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>cost and fixed assets are taken as an input variable while output variables are price of profit operation. We find that only three Islamic banks which have been profit-efficient, while another eight Islamic banks are classified as profit-inefficient. The finding of this study are expected to contribute significantly to the existing knowledge on the operating performance of Islamic banks, Islamic bank's management, and decision-making for regulators of Islamic banks in Indonesia. Key words: Profit Efficiency, Islamic Banks, Indonesia.</p>
252	<p>Ernest Egba, UTM Electrochemical Impedance Spectroscopy Pattern Of Reinforced Concrete Under Natural Climate Environment In Tropical Region</p>	<p>The Electrochemical Impedance Spectroscopy (EIS) has been proved to be the most reliable technique of monitoring corrosion activity in reinforced concrete. There have been investigations to measure the EIS of reinforced concrete specimens exposed to artificially controlled environment. This paper disclosed the EIS pattern of reinforced concrete specimen exposed to the natural tropical climate environment in Johor Malaysia. Several reinforced concrete specimens were exposed to the natural climate environment under different exposure conditions. The EIS measurements were conducted on the specimens over periods of time. The results indicated that the exposure condition influenced the rate of shift of the spectra inflexion point towards the positive value of the real impedance. Also, the shift of the spectra inflexion point towards the positive value of the real impedance increased with an increase in the abruptness of the change of temperature and/or relative humidity. The findings would be useful for proper calibration of the effects of corrosion induced damage in reinforced concrete.</p>
254	<p>Nurul Syazwani Ismail, Universiti Teknologi Malaysia; Jamalluddin Harun, Universiti Teknologi Malaysia; Shaharuddin Md Salleh, Universiti Teknologi Malaysia; Megat Aman Zahiri Megat Zakaria, Universiti Teknologi Malaysia Implementation Of Problem Based Learning In Mobile Learning Environment: A Meta-Analysis</p>	<p>The use of mobile technology in teaching and learning is an alternative strategy in education nowadays. In relations to this, cognitive skills, or better known as the 21st century skills in education, such as problem-solving, critical thinking and information media and technology skills are emphasized to the students in their learning process. However, the successful implementation of mobile technology in education could not be achieved, if it is not integrated together with appropriate pedagogy to produce students who are able to meet the challenges of the world today. Problem-Based Learning (PBL) is one of the teaching strategies that can generate students with higher-order</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>thinking skills. Nevertheless, it is still less due to a number of factors. While PBL is usually carried out in group work, where it requires the active involvement of students in the discussion session, mobile learning focuses more on individual learning and mobile presentation. Thus, the aims of this meta-analysis were, to identify the way PBL could be integrated in the mobile learning, to assess the aspects of cognitive skills and to make suggestions for future research as a guide for further improvements in the effective implementation of PBL in the mobile learning environment. From the meta-analysis carried out, it could be concluded, that some researchers integrated PBL with other learning theories, strategies and technologies in implementing PBL in mobile learning environment, with the major cognitive skills emphasized and investigated in these studies being problem-solving skills. From the meta-analysis, it was also found that, device and implementation aspects were limitations to be overcome by PBL in mobile learning environment.</p>
259	<p>Somayeh Asadi Haris, UTM; Shafinaz Shahir, UTM; Zaharah Ibrahim, Utm Isolation, Identification and Characterization of Metal and Antibiotic-resistant Psychrotrophic Bacteria (Pseudomonas) from Arctic Soil Sample</p>	<p>IGCESH2016 Universiti Teknologi Malaysia, Johor Bahru, Malaysia 15 -17 August 2016 ISOLATION, IDENTIFICATION AND CHARACTERIZATION OF METAL AND ANTIBIOTIC-RESISTANCE PSYCHROTROPHIC BACTERIA (PSEUDOMONAS) FROM ARCTIC SOIL SAMPLE Somayeh Asadi¹, Zaharah Ibrahim² and Shafinaz Shahir³ ^{1,2,3} Department of Biosciences and Health Sciences Faculty of Biosciences and Medical Engineering, Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor, Malaysia Corresponding author: shafinazshahir@utm.my ABSTRACT Over the years, with the development of the industrial progress, the pollution with toxic heavy metals is increasing throughout the world along with industrial progress. The aim of this study was to investigate the isolation, identification and characterization of heavy metal resistant bacteria from soil sample collected from Svalbard in the Arctic Ocean. Five psychrotrophic bacteria were isolated and then the isolated bacteria were tested for their resistance to antibiotic (Ampicillin, Tetracycline, Chloramphenicol, Kanamycin) and heavy metals (K₂Cr₂O₇, Cd(NO₃) and NaAsO₂) using different concentrations on mueller hinton agar</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>by the Kirby-Bauer Test and low phosphate medium by the agar diffusion method, respectively. The isolate 10C5 was selected based on high level of heavy metal and antibiotic resistances and then the minimum inhibitory concentration (MIC) of heavy metals were investigated for that. The isolate exhibited high resistance to heavy metals As³⁺, Cd²⁺ and Cr⁶⁺ with MIC in 3450 mg/l, 300 mg/l and 75 mg/l, respectively. On the basis of morphological, biochemical, 16S rDNA gene sequencing and phylogeny analysis revealed that, the isolate was authentically identified as <i>Pseudomonas veronii</i> FB15. Key words: Psychrotrophic Bacteria, <i>Pseudomonas</i>, Heavy metal</p> <p>INTRODUCTION The land surface of the Earth is predominately a cold environment-including extremely cold areas such as the Arctic and Antarctic, as well as moderately cold areas at higher alt</p>
263	<p>Nur Hazwani Zakaria, Faculty of Education, UTM Students Perception Toward Mobile Computer-Based Physics Laboratory (MCPL)</p>	<p>Students learn better with various teaching strategies, relate to contextual way and involvement of technology. Low interest among students caused by students' perception toward Physics and conventional teaching approach. Besides, laboratory malfunctions and destructible apparatus lead to less number of experiments that can be carried out by the students. Students' low achievement in Physics reflect low understanding in concepts and experiments should be able to engage the students' interest in Physics. Therefore, Mobile Computer-based Physics Laboratory (MCPL) was implemented to 105 form four students in Kluang and Kota Tinggi. A survey was carried out using The Instrument to Measure Students' Perception toward MCPL (IMP-MCPL) which consisted 18 items. The instrument was administered to the students after six weeks of MCPL intervention. Interview were carried out and data triangulation was analyzed to know the students' perception in depth. The MCPL gave positive impact to students' learning, experimenting skills, grow ideas and interact with other students in learning process. As a conclusions, MCPL is a way that can be implemented at any place and convenient to teaching and learning.</p>
265	<p>Athirah Rosli, Universiti Teknologi MARA; Abidah Mat Taib, Universiti Teknologi MARA; Wan Nor Ashiqin Wan Ali, Universiti Malaysia Perlis</p>	<p>Escalation of Internet-of-Thing (IoT) may cause internet users being exposed to IPv6 security issues. End-to-end connection feature in IPv6 can be misused by attackers to flood targeted</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	<p>Demonstrating the Use of Enhanced Risk Assessment Equation in Handling UDP Flooding Attack</p>	<p>host. Using User Datagram Protocol (UDP), attackers can certainly congest the network by injecting UDP packets during network communication. This will introduce risk if there is no precaution step taken. Enhanced risk assessment equation can be adopted to mitigate the risk. Thus, this paper presents the use of enhanced risk assessment equation to identify risk value that is caused by UDP flooding attack. The attack was simulated using OMNeT++ simulation software. The inputs that were considered in the enhanced equation are based on the features of the tested network scenarios. The obtained risk value can be used in determining appropriate mitigation techniques that help the organization in maintaining and strengthening their network. It also offers organization to secure their network resources and assets. Furthermore, this paper also reveals that the enhanced risk assessment equation is flexible to be used in any situation. Hereafter, more IPv6 based protocols will be tested to measure the capability of using the enhanced equation.</p>
268	<p>Suhail Abdullah Determination Of Moisture Content, Ph And Ripeness Levels Of Pineapple Using Horn Antenna-Based Reflectometer</p>	<p>This paper presents a microwave horn antenna based sensor to predict the moisture content of N36 pineapple, pH concentrations of such pineapple for specific growing stages and ripeness level according to that moisture and pH values. The moisture measurements are statistically correlated to the reflected voltage of the horn based sensor. The system is consist of USB stick synthesizer to generate the signals, Directional coupler to collect the reflected signal from the horn antenna, and RF diode detector to detect the reflected signal from the sample (pineapple) under test. Measuring the pH, Moisture content using microwave system this will increase the quality of the fruit of industrial products due to fast measurement. A wide band horn antenna and directional coupler are used for purpose of wide resolution range of investigation. It is seen that by increasing the power at $f = 10$ GHz the $V_{reflected}$ will be highly correlated equation with moisture content. Matlab 2014b is used for statistical analysis.</p>
269	<p>Mohd Mokhzani Ibrahim , Universiti Teknologi Malaysia The Process Of Self-Directed Learning In Blended Problem-Based Learning: The Roles Of Teacher And Students</p>	<p>Problem-based learning (PBL) is one of the effective learning approaches in enhancing students' self-directed learning towards the development of 21st century learning skills. Realizing the fact that PBL have a few drawbacks in its implementation, the integration of face-to-face and online learning known as</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>blended problem based learning (BPBL) is potentially effective in improving PBL and enhancing students'™ self-directed learning. Thus, this research aims to investigate the process of self-directed learning in BPBL by using a basic qualitative approach. Data were collected from observation, interview and document (FILA chart) during the implementation of BPBL. By using purposive sampling, twenty-five (25) students and a teacher from a school in Johor district were selected as the sample. The students were divided into five groups. At random, data from two groups were chose to be analyzed. Due to the lack of monitoring and evaluating skills, only one group showed improvements in formulating learning issues as the impact of online learning (discussion forum). As a conclusion, the integration of online learning should be aligned with the role of facilitator in stimulating students'™ self-directed skills.</p>
271	<p>Ali Bavafa, UTM Evaluating safety climate of construction workers in Iran</p>	<p>In developed and developing countries the construction safety and health is regarded as one of the vital issues. According to the statistics proportion of accidents on construction sites are relatively high in Iran and after steel industry the highest accident rate is related to construction sector. Considering this situation, this research aims to conduct a survey on safety climate to determine the attitudes and perceptions of the workers in the Iranian construction industry with regards to safety and health. An extensive literature search on various dimension of safety climate was carried out in publications and a list of safety climate statements was determined to calculate their rank and importance. The methodology applied in this paper was questionnaire survey. The questionnaires were distributed among construction workers in 8 different construction projects. After data analysis, it is found that construction workers have positive attitude and perception towards safety climate. The highest ranked factors by all workers were found ?The accident prevention must be everyone responsibilities?, ?I am capable of identifying potentially hazardous situations? and ?There is involvement of workers in reporting important safety issues to the management?. On the other hand, ?A contractor sacrifice his profit by investment on safety? and ?Safety publications and posters have little influence on the workers</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		awareness and behavior? are perceived as low ranked factors.
273	<p>Nur Afiqah Badli, Universiti Teknologi Malaysia Johor Bahru; Rusmidah Ali, Universiti Teknologi Malaysia; Wan Azelee Wan Abu Bakar, Universiti Teknologi Malaysia; Leny Yuliati, Universiti Teknologi Malaysia</p> <p>The Effect Of Transition Metal Oxide On Titania Photocatalyst For Photodegradation Of Paraquat Dichloride</p>	<p>The titania was frequently used as photocatalyst based due to their effectiveness for degrading the variety of organic compound and good chemical stability. This study, transition metal oxide (MO)-doped titania (TiO₂) was used as an effective photocatalytic activity for the degradation of paraquat dichloride in aqueous solution. A series of MO (M= Ni, V, Sc and Zr)-doped TiO₂ photocatalysts at different calcination temperatures were synthesized using a modified sol-gel method. Mainly, this work was concentrated on the effect of dopants and calcination temperatures on the photocatalytic degradation of paraquat dichloride. The optimum degradation was obtained using Zr⁴⁺/TiO₂ photocatalyst at the calcination temperature of 750°C which gave 76.61% degradation of paraquat dichloride. The photocatalytic activity was increased might be due to the better thermal stability of the anatase phase TiO₂ photocatalyst that was present at the higher temperature as well as larger specific surface area as compared to the single TiO₂ that was synthesized and calcined at same calcination temperature. In overall the Zr⁴⁺/TiO₂ photocatalyst calcined at 750°C showed the best photocatalytic degradation of paraquat dichloride under UV irradiation within four hours reaction time.</p>
274	<p>Rohani Abd Wahab, Universiti Teknologi Malaysia; NOOR AZEAN BINTI ATAN ATAN, Universiti Teknologi Malaysia; ABDUL HALIM BIN ABDULLAH ABDULLAH, Universiti Teknologi Malaysia; Mahani Mokhtar, Universiti Teknologi Malaysia; Mohd-Salleh Abu, Universiti Tekno</p> <p>The Effect Of Learning Geometry Through Sketchup Make To Enhance Visual Spatial Skills Among Students</p>	<p>This study was conducted to determine if a Learning Strategy for 3-Dimensional Plan and Elevation using SketchUp Make, or its acronym, LSPE-SUM, could enhance visual spatial (VS) skill among male and female secondary school high achievers in learning Geometry. VS skill refer to the abilities of rotating, viewing, transforming, and cutting mentally. Hence, a quasi-experimental single group time series design with repeated measurement; pre-, post1-, post2-, and post3 -tests, was conducted on a number of Form Five students. The students had attended their traditional class prior to the interventions. The study was held for six weeks and it involved a total of 34 students; 20 females and 14 males. In addition, VS skill were tested by employing standard Spatial Visualization Mental Test: Purdue Spatial Visualization Tests of Rotation (PSVT:R), Purdue Spatial Visualization Tests of View (PSVT:V), Transformation 3D to 2D test (T3D2DT), and Mental Cutting Test (MCT). The</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>findings obtained from the Pre-, Post1-, Post2 -, and Post3- tests exhibited a positive increase in the overall VS abilities, where the mean score increased as the cross-evaluation was conducted. In addition, SPANOVA test for repeated measurements was carried out, where the findings revealed statistically significant interactive relationships between pre- and post-interventions through LSPE-SUM and gender on VS skill. A significant main effect for interventions and a significant difference for gender on VS skill before and after interventions were also statistically obtained. Hence, it can be concluded that, learning using LSPE-SUM could successfully improve secondary school high achievers? VS skill and that, male secondary school high achievers benefitted significantly better than female secondary school high achievers from the interventions.</p>
277	<p>Mazuina Mohamad, Universiti Malaysia Pahang; Dr. Hadi bin Manap, Faculty of Engineering Technology, Universiti Malaysia Pahang; Nor Mazlee bin Norazmi, Green Scientific Enterprise Bilirubin Sensing And A Cross Sensitivity Evaluation With Co2 And O2 Using Optical Fiber Sensor</p>	<p>This paper describes an optical fiber sensor for the monitoring of bilirubin concentration and commonly called jaundice. An open path optical technique is used to analyze the absorption lines of bilirubin within the Ultra Violet/ Visible region. By using a wavelength corresponding to a bilirubin absorption peak, the Beer-Lambert Law can be used to relate the concentration of bilirubin surrounding the sensing portion to the amount of absorbed light. In the initial experiment, the absorption cross section for MAS bilirubin a product from Thermo Scientific was investigated and compare with theoretical data. an empty cuvette was used to measure incident intensity when the light passes through the empty cuvette. Then a cuvette was filled with bilirubin sample before measured the transmitted intensity. The theoretical absorbance of bilirubin shows maximum absorption in the range of 400 nm to 500 nm. The experimental result shows the absorption line for measured MAS bilirubin is in similar pattern and the maximum absorbance shows in range 400 nm to 500 nm. Cross sensitivity evaluation would be carried out to study the cross sensitivity of bilirubin absorption spectrum with other human blood molecules like oxygen (O₂) and carbon dioxide (CO₂) to yield the best wavelength for the absorption.</p>
279	<p>Muhamad Arshad Mohamad Amir, Universiti Teknologi Malaysia; Faizah Mohamad Nor, Universiti Teknologi Malaysia</p>	<p>Reading-comprehension problem are relatively common and is often unrecognized in the classroom. In trying to comprehend texts, learners would employ strategies to ease the</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	<p>The Effect Of Focused Reading Comprehension Training On The Use Of Skimming And Scanning Skill</p>	<p>process. However, it is often seen that the learners of a second language have the tendency to rely too much on translation. This reliance has made learners not able to form a global understanding of a reading comprehension text. Skimming and scanning are two strategies that are used to speed up the reading comprehension, fostering global understanding of a text. The aim of this study was to find out if focused training of skimming and scanning affects the learners' usage of the skills. This study employed a quantitative research method. A Think Aloud Protocol (TAP) was carried out before and after training. The data was analysed using descriptive statistics. The respondents of this study were 6 form 4 students of a government school. The results showed a tendency of using more scanning strategy after training, with only one respondent showing more skimming strategy use. They utilised more scanning strategy to get more information from the text. This study would help educators to know how focused training can affect the use of skimming and scanning strategies.</p>
280	<p>Javad Hamzehalipour Almaki, University Technology Malaysia; Rozita Nasiri, Universiti Teknologi Malaysia; Ani Binti Idris, Universiti Teknologi Malaysia; Fadzilah Adibah Abdul Majid, Universiti Teknologi Malaysia; Mahtab Nasiri, Islamic Azad University</p> <p>INFLUENCE OF POLYETHYLENE GLYCOL MOLECULAR WEIGHT ON PHYSICO-CHEMICAL CHARACTERISTICS AND BIOCOMPATIBILITY OF COATED γ-Fe₂O₃</p>	<p>Polyethylene glycol (PEG) is a biodegradable and biocompatible polymer which has sufficient properties for drug delivery applications. In this study, the influence of PEG molecular weight on physico-chemical characteristics and biocompatibility of PEG-coated γ-Fe₂O₃ nanoparticles were investigated. Two different molecular weights of PEG were used, i.e. 6 kDa and 2 kDa. Comparison of synthesis and characterization of the two PEG-coated nanoparticles, including FTIR, TEM, FESEM, XRD, DLS and VSM were reported. As well as the analytical characterization of the PEG-coated nanoparticles, the cell lethality was measured in HSF 1184 (Human skin fibroblast cell line). Both PEG2-SPIONs and PEG6-SPIONs were not harmful to viability of the cell. PEG2-SPIONs were smaller in size and showed higher magnetic properties so that it has been concluded that PEG2-SPIONs is superior to PEG6-SPIONs for biomedical application particularly drug delivery and hyperthermia therapy.</p>
281	<p>Nor Delyliana Admon, Faculty of Education UTM Skudai</p> <p>Students' Perception On The Level Of Higher Order Thinking Skills In</p>	<p>Most lessons in schools in Malaysia do not sufficiently have constructive thinking engaged. Rather, recalling facts and lower order thinking are the preferred methods which still dominate the teaching and learning processes for all</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	<p>Probability, Based On Outside Classroom Learning Environment</p>	<p>subjects, including Mathematics. Even though, Mathematics is indirectly related to developing higher level skills, such as reasoning, independent thinking, analyzing, as well as critical and creative thinking, thinking skills portrayed by Malaysian students at the international level had been rather poor. Thus, this study investigated the students' perceptions on the level of higher order thinking skills (HOTS) in Mathematics, focusing on the topic of Probability. For that purpose, outside classroom approach was selected as the learning environment, in order to provide a different mode of learning Mathematics. The instrument used was a set of questionnaire, comprising a total of 27 items, based on the three levels of HOTS, namely, analyzing, evaluating, and creating. The data collection involved a total of 45 Form 5 students in Johor. A descriptive analysis was carried out by using Statistical Package for Social Science (SPSS 20.0) to obtain the mean value for each category. The results obtained pertaining to the respondents' perceptions were as follows: a) level of analyzing (mean value = 2.09), b) level of evaluating (mean value = 2.05), and c) level of creating (mean value = 1.98). It was found that, there was a correlation between analyzing and evaluating of students' perception on HOTS using Spearman's rho analysis, with $r = 0.504$ and a significant p value = 0.000, indicating moderate relationships. However, no correlations were found between analyzing and creating ($r = 0.154$, $p > 0.05$) and between evaluating and creating ($r = 0.143$, $p > 0.05$). The overall results showed that, Malaysian students were at the moderate level in HOTS, especially in an outside classroom learning environment. Therefore, immediate remedial actions must be t</p>
284	<p>Muhamet Abdullahu, University Technology Malaysia A Holistic Approach Of Reassessing University-Industry Collaboration In Malaysia From The Change Readiness Perspective</p>	<p>A massive body of work has been done in assessing University-Industry collaboration in Malaysia context. As a result, different sets of barriers and issues that impede the collaboration have been highlighted and recommendations have been proposed by researchers. However, up to date there is little critical review that looks into the subject matter from the lenses of change readiness and specifically from the micro level perspective. This review paper will re-assess the current position of University-Industry collaboration in Malaysia and will suggest a model that will pave</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		the way to a better understanding of University-Industry collaboration from the readiness perspective.
285	Farah Nadia, UTM Management And Maintenance Issue Of Waqf Asset: A Literature Review	Fundamentally, an effective management of properties has been established as a healthy way of increasing the value and benefits of real estate. The sources of awqaf (pl;waqf) are quite rich. However, the issues on sustainability of waqf asset has not yet been explored especially with regards to sustaining and enhancing the value through sound principles of property management. Thus, this paper presents a literature review about the causes and effect of the factors contributing to the failure over performance of waqf management practice prior as such actions had been undertaken. From the review of literatures, among contributors for inefficient management and maintenance in waqf asset are insufficient fund, expertise, registration and lack of available information. It's clearly indicated that there is no ample study in the area of maintenance issue of waqf asset in Malaysia. Therefore, it strongly suggested that there is need to fill the gap of the study of which operation management function shall be included in waqf management practice as well for achievement an optimum waqf asset investment.
286	Eliza Mohamed Zalehan, Malaysian-Japan International Institute of Technology (MJIT) Investigation on effect of host polymer for multiwalled-carbon nanotubes based passive saturable absorber	Investigation on effect of host polymer for multiwalled-carbon nanotubes based passive saturable absorber Eliza Amira Mohamed Zalehan ¹ , Fauzan Ahmad ¹ , Mohd Haniff Ibrahim ² , Sulaiman Wadi Harun ³ ¹ Department of Electronic System Engineering, Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia, 54100 Kuala Lumpur, Malaysia. (elizaamira92@gmail.com, fauzan.kl@utm.my) ² Faculty of Engineering, Universiti Teknologi Malaysia, 81310 Johor Bahru, Malaysia. (hanif@fke.utm.my) ³ Department of Electrical Engineering, University of Malaya, 50603 Kuala Lumpur, Malaysia (swharun@utm.edu.my) ABSTRACT Two water soluble host polymer namely polyvinyl alcohol (PVA) and poly ethylene oxide (PEO) had been demonstrated to embed Multiwalled-Carbon Nanotubes MWCNTs as passive saturable absorber through solution casting approach. The performance of PVA host polymer is superior compare to PEO where the opaque properties of PEO based host polymer only work in small range of input pump power. When both of the SA integrated in the

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>ring laser cavity with Erbium doped fiber as gain medium, pulse laser in Q-switched regime was generated. The maximum input pump power for MWCNTs-PVA based passive SA of 245.2 mW produce maximum repetition rate of 125.0 kHz with the shortest temporal pulse width of 3.4 μs. The maximum instantaneous peak power and pulse energy around 10.3 mW and 37.4 nJ. Meanwhile, the MWCNTs-PEO based passive SA operates within the range of pump power from 60 mW to 72 mW and the range of repetition rate from 9.9 kHz to 20.8 kHz with shortest pulse width of 17.8 μs. The calculated maximum peak power and pulse energy is around 1.5 mW and 29.4 nJ. Keywords: Pulse laser, Multi-walled carbon nanotubes, Q-switched laser</p> <p>INTRODUCTION Short Pulse laser have become grandness in most field of application ranging from optical communication to medical diagnostics, industrial material processing, spectroscopy and imaging [1]. Furthermore an energetic Q-switched F</p>
287	<p>Nur Hidayah Muhamad Apandi, MJIT UTM DEMONSTRATION OF Bi₂Se₃-PVA BASED PASSIVE Q-SWITCHER</p>	<p>We demonstrate a passive Q-switched by integrating a Bismuth (III) Selenide (Bi₂Se₃) dispersed in Polyvinyl Alcohol (PVA) as passive Q-switcher. The Bi₂Se₃ was dispersed in PVA by solution casting approach and then dried at ambient temperature to develop a Bi₂Se₃-PVA film. The integration of the passive Q-switcher is by attaching a small portion of the developed Bi₂Se₃-PVA film at the end of fiber ferrule in the laser cavity with ring configuration to generate pulse laser. The experimental works show that the proposed Q-switcher operates at input pump power ranges from 21.69 mW to 140.03 mW with central operating wavelength of 1564.7 nm. We observe the tunable repetition rate from 28.69 kHz to 104.4 kHz with the shortest pulse width of 2.97 μs. The laser produce maximum instantaneous output peak power and pulse energy of 13.91 mW and 43.96 nJ. Key words: Bismuth (III) Selenide, Polyvinyl alcohol, Q-switched laser,</p>
288	<p>Muhammad Gohram Khan, UTM BUILT ENVIRONMENT Communities Perception On Flood Disasters And Management In Pakistan</p>	<p>Evidence shows that disaster experience and risk perception of the people has great impact on flood preparedness and mitigation. Awareness of and preparedness for disasters by the communities are essential for improved disaster management. In recent decade, Pakistan has had major flood disasters which greatly affect vulnerable communities. This paper examines the communities' experience of disaster and their perceptions on disaster</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>risks in order to gauge their preparedness. Questionnaires were administered to 385 respondents using convenience sampling approach in seven flood prone districts of Pakistan. The results showed that the communities are moderately aware of flood risk. The study also indicates that there is positive correlation between risk perception and experience. For disaster preparedness, education indicates significant level of influence on risk perception. The paper concludes that effective communication of information and knowledge is critical to assist vulnerable communities as part of the whole disaster management strategy.</p>
290	<p>Diyana Jamari, Universiti Teknologi Malaysia; Norasykin Mohd Zaid, Universiti Teknologi Malaysia; Zaleha Abdullah, Universiti Teknologi Malaysia; Hasnah Mohamed, Universiti Teknologi Malaysia; Baharuddin Aris, Universiti Teknologi Malaysia Type Of Scaffolding To Support Ill-Structured Problem Solving</p>	<p>Provision of an alternative instructional platform has encouraged students' involvement in online social collaborative learning that could potentially enhance problem-solving (PS) skill. There are many types of scaffoldings proposed by researchers to inculcate this skill, however, concern arises with the conjunction of an ill-defined problem. Besides being complex than a well-defined problem, its uniqueness originates due to the integration of domains in a problem and multiple solutions that can be generated out of it. This study aims to identify dominant type of scaffold use to guide ill-defined PS, to determine the common platform used and education level where ill-defined PS mostly studied. Search and review of relevant articles were done through online databases, journals and Google Scholar using keywords of scaffolding problem solving, ill-structured problem, scaffolding ill-defined problem and support in PS. The findings revealed that metacognitive scaffolding (MS) is dominant in supporting ill-structured PS. MS assist in realigning the thinking of an individual to ensure proactive measures taken in the process of PS. Nevertheless, majority of the previous studies of MS were carried out in higher institutions instead of schools and within formal platform e.g., Learning Management System (LMS). Thus it is hoped this review will give insights and idea to the educators to inculcate MS and improve PS skill in schools and within use of new platform of social media.</p>
292	<p>NUR BALQISHANIS BINTI ZAINAL ABIDIN, UNIVERSITI MALAYSIA PAHANG; Mohd Rashid Bin Abdul Hamid, Universiti Malaysia Pahang</p>	<p>The purpose of this study is to empirically validate the Innovation Excellence Framework (IEF) in Malaysian Higher Education Institutions (HEIs). The structural equation modelling (SEM) was used to analyse the structural relationships</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	<p>Innovation Excellence Framework In Malaysian Higher Education Institutions: An Empirical Study</p>	<p>of latent constructs in the framework namely, objectives and strategy, change management, best practices, resource management, and innovation. A total of nine hypotheses have been put forward to test the relationships amongst the constructs of innovation excellence. The data was collected from a survey that yielded 467 usable questionnaires through cluster and stratified sampling technique on the specified universities. The findings revealed that all the hypothesized relationships are significant at t-value > 1.96, two-tailed test by using 5000 bootstrap samples except for the relationship of objectives and strategy towards innovation which resulted in a non-significant relationship.</p>
293	<p>Kumalasari Kipli, UTM Skudai Exploring The Success Of Pfi Projects Through Implementation Of Knowledge Management</p>	<p>The Private Finance Initiative (PFI) procurement model is a complex system which include long-term commitment; customer satisfaction and through-life collaborative working. Despite of the advantages bring out by the PFI projects, there are few setbacks which PFI said to have its weaknesses in term of the performance. This papers aim to explore the framework model that relate the KM elements with the performance of PFI projects which using collaborative knowledge as moderating factors. The quantitative methodology using survey were use to get the feedback from the respondents which are the professionals involved in 5 PFI projects in Malaysia. The paper then derived the element of knowledge management as important elements in the success of PFI projects. Finally, the paper proposes recommendations to improve the performance of PFI projects with the enhancement of knowledge management especially by using collaborative knowledge.</p>
297	<p>Ngui Geok Kim, Institut Pendidikan Guru Kampus Gaya; Lay Yoon Fah, Universiti Malaysia Sabah The Mediating Effect Of Self-Efficacy On The Relationship Between Resilience And Perceived Practicum Stress Among Student Teachers</p>	<p>THE MEDIATING EFFECT OF SELF-EFFICACY ON THE RELATIONSHIP BETWEEN RESILIENCE AND PERCEIVED PRACTICUM STRESS AMONG STUDENT TEACHERS G. K. Ngui¹ and Y. F. Lay² 1Gaya Teacher Education Institute, Kota Kinabalu, Sabah, MALAYSIA. (E-mail: nguigeokkim@hotmail.com) 2Faculty of Psychology and Education, Universiti Malaysia Sabah, Sabah, MALAYSIA. (E-mail: layyoonfah@yahoo.com.my) ABSTRACT Self-efficacy is an important attribute of student teachers as it has the ability to improve one's resilience against practicum stress. This study focuses on determining the extent to which the</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>three dimensions of self-efficacy (instructional strategies, classroom management, and students? involvement) mediate the relationship between resilience and student teachers? perceived practicum stress. The study involved 200 student teachers selected via a purposive sampling technique from a teacher education institute in Sabah, Malaysia. In this quantitative study, survey method with questionnaire (which contains three main scales: the 25-item Resilience Scale, the 12-item Teacher Self Efficacy Scale and the 10-item Perceived Stress Scale) was used to collect data. IBM SPSS 23.0 was used for descriptive analysis while SmartPLS3.0 was used for inferential analysis. The results showed that all research variables were perceived moderately. There are significant relationships between all the constructs except the relationship between student involvement with stress and the relationship between instructional strategies with stress. Classroom management was found a significant mediator of the relationship between resilience and perceived practicum stress. The study results implied that there is a need to improve on instructional strategies and student participation among student teachers to enhance their resilience against stress during practicum. Key words: Self-efficacy, Resilience, Perceived practicum stress, PLS-SEM</p>
298	<p>Edo Ojoko, Universiti Teknologi Malaysia; Bruno Tanko, Universiti Teknologi Malaysia; Jibrin Musa, Federal Polytechnic Nasarawa; Oga Ojoko , Federal Polytechnic Nasarawa; Wallace Enegbuma, Universiti Teknologi Malaysia Project Delay Causes And Effects In The Construction Industry</p>	<p>Delays, with its adverse effects on project delivery, have over the years remained the biggest problem in the construction industry. The objective of this study, therefore, is to identify and proffer solutions to delay causes and effects. Literature reviewed and responses obtained through questionnaire from stakeholders? (client, consultant, and contractor), revealed a total of thirty-four delay causes and ten effects. The delay causes were thereafter classified into eight major groups. The data were analysed using the weighted mean score method. The results suggest that Client-related factors (interim payment and changed order) and Contractor-related factors (poor financing, poor planning and scheduling) are the most significant causes of project delay. The three leading effects on project delivery are Time overruns, Cost overruns, and Claims. To mitigate causes of delays and their effects on projects, it is suggested that clients promptly honour verified interim certificates and take measures to minimise incidences of the change</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>order. It is required of the contractor to undertake adequate budgeting and proper project planning right from the tendering stage. To overcome the limitations of this study, further studies could explore stakeholders' perception of exact project type (building or civil), either public or private projects only and in other geo-political zones not covered in this paper.</p>
299	<p>Kazeem Akinbola, UTHM Torchlighting The Robustness And Dynamism Of Land Administration System In Surmounting Formal Land Acquisition Challenges In Nigeria.</p>	<p>Nigeria is at a point in the annals of her history as a nation, to as a matter of urgency and sheer commitment, takes it upon herself to overhaul all her systems, especially those that drive the socio-economic development of the country, such as lands. It is against the above simple analogy, that Nigeria's land administration and management system, like never before, must be thoroughly understudied to apparently gauge their level of functional-dynamism and administrative robustness towards surmounting past, present and potentially-emerging challenges that bedevil formal land acquisition, and also to ensure the comparative competitiveness of the country's land administration system, as well as being attuned with global best practices. Therefore, in a bid to establish the truism or otherwise in respect of how functionally-dynamic and administratively-robust Nigeria's land administration system is, that this study was conducted to measure it against the following benchmarks, thus: foresight, penetration, judgement, coverage, flexibility, precision, capacity, capability, responsibility, reliability, drive, output, quality, promptness and discretion. A total of 115 well-structured questionnaires were distributed among all stakeholders in all ministries, departments and agencies, committees and boards whose mandates border on land use, control and development decisions as well as independent land consultants and land users in the southwestern Nigeria, out of which 92 were retrieved for analyses with the use of simple statistical tools of descriptive and inferential colourations, via 5 point Likert scale of measurement as the foundation.</p>
302	<p>Jibrin Suleiman, UTM Socio-Economic Attributes on Residential Building Energy Consumption</p>	<p>Buildings plays an important role in providing shelter and offices for occupants daily needs globally. However, these structures contributes negatively in terms of energy consumption, this is due to its contribution heavily to global warming. Despite the campaigns on global energy awareness and mitigation of GHG emissions in the last 40 years, there was more</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>than 100% growth in CO₂ emissions annually in Malaysia. This research is aimed at providing solutions in minimizing energy wastage in the residential buildings sector. Data was collected in the state of Johor, Malaysia using a 5-point likert scale questionnaire. Descriptive statistics was employed in analysing the collected data using path analysis. The findings from the study shows that occupants understanding on socio-economic attributes to building energy consumption is significant. However, 3 out of the 6 attributes use in the study did not support the study. In line with this, it is hoped that the result of this study will assist in this field through better understanding of energy behavior practice by residential building occupants.</p>
303	<p>Noor Hayati Mohd Zain, Universiti Teknologi Malaysia; Norafida Ithnin, Universiti Teknologi Malaysia An Overview Of Data Center Disaster Management Approach</p>	<p>Data center is a place where a lot of data and information stored together. Pooling all data in one large place called data center will make management work become complex and hard to be manage. Threats become one major problem which can cause disaster to data center. Disaster management is one important step that need to be done in reducing disaster impact and disaster loss when threats attacked or strike to data center. This paper presents an overview of Data Center Disaster Management (DCDM) approach as one propose solution. The features of disaster management is listed and compared in evaluating the suitable DCDM mechanism to improve the previous disaster management processes. Based on all selected features, a comparison of features from existing DCDM approach are analyzed and the selected features was identified toward a better development of the new DCDM approach.</p>
305	<p>Siti Zubaidah Mohd Zain, Universiti Malaysia Terengganu (UMT); Zuriana Abu Bakar, Universiti Malaysia Terengganu (UMT); Noor Maizura Mohd Noor, Universiti Malaysia Terengganu (UMT) The Minimalist Design Principles For Entrepreneurs' Website</p>	<p>Minimalist interface is a way to deliver information in the simplest and aesthetically pleasing way. A number of studies revealed that users were more likely to prefer simple and clean interfaces. In contrast, visually complex interface are consistently rated as less beautiful than their simpler counterparts. This study intends to investigate the minimalist design concept for the entrepreneurs? websites. An entrepreneur is a person who organizes any business with considerable initiative risk. Thus, it is important for their websites could assist the users to get satisfied on what they are delivering on that web page and been accepted well. Then, this study proposes a study on minimalist design concept for entrepreneurs? websites.</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
306	NOR MARINA ROSLI, Universiti Teknologi Malaysia A Review On The Conditions Of Domestic Subcontract In The Malaysian Construction Industry	<p>Construction contract general conditions which are also known as standard form have major influence on the likelihood and degree of project success. First essential requirement for a standard form is that it should be drafted with clarity so that it is possible to easily ascertain from the wording just where the risk falls. In Malaysian construction industry, there are several choices of standard forms of main contracts and nominated subcontracts. Nonetheless, there has never been any published standard form of domestic subcontract in Malaysia. Most of the subcontracts to be employed between main contractor and domestic subcontractor are unpublished "in house" contracts, ad-hoc or "one-off" contract. Domestic subcontracts are frequently entered into on an informal basis. Such contracts have provoked fierce criticism from trade associations representing subcontractors, as being one-sided to the point of unfairness. Through selected published articles from established academic journals in construction management and related field, detailed coverage of these issues have been systematically reviewed with the aim to examine the attributes and crucial conditions of domestic subcontract. The outcome of this paper may provide a platform for both researchers and industrial practitioners to appreciate the attributes of domestic subcontract and subsequently apply them their own subcontract forms.</p>
307	Khatereh A Malekian Determinants of Burnout and Stress on Student Health: A Study of Iranian Expatriate Students	<p>Current research delve into examining the prevalence of stress and burnout among Iranian international students and the relationship of stress and burnout to their health status. The findings suggests that stress and burnout among international students is a valid occurrence. Upon investigation, study workload to be the prime stressor. Due to the close association burnout and stress have with health status of the participants, ways of decreasing the international students' workload and assist with emotional exhaustion advised before it leads to a detrimental degree of burnout. Results failed to determine any association among demographic characteristics of participants and their stress/burnout occurrence.</p>
309	Mohammmd Khairul Shaleh Md Asari, Universiti Tun Hussein Onn; Abdul Mutalib Leman, Universiti Tun Hussein Onn	<p>The Malaysian law under OSHA 1994 at section 15 and 17 stated that the employer must ensure that the worker and the workplace are is safe</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
	<p>Systematic Approach For Hazard Identification, Risk Assessment And Risk Control (HIRARC) In Workplace According To Dosh Guidelines</p>	<p>working environment. Therefore it is necessary to conduct the HIRARC activities. The objective of this article is to explain the process of risk management in the view of HIRARC (hazard identification, risk assessment and risk control in DOSH guidelines. The article will explain in the practical manner how to conduct the HIRARC activities in the workplace. The stages involve is performing the activities were reveal and illustrated step by step. The study find that there are three main activities in the process that are hazard identification, risk assessment and risk control. All the activities are meant to each of this option that are eliminate and reduce the risk involves by implementing risk control.</p>
310	<p>Latifah Abdul Raub, UTM; Mohammad Yusof Arshad , Universiti Teknologi Malaysia; Mohd Shafie Rosli, Universiti Teknologi Malaysia; Nurbiha A Shukor, Universiti Teknologi Malaysia Chemistry Literacy Achievement Among High-Achiever Students In Malaysia</p>	<p>The main challenge in chemistry education is to nurture students' knowledge in developing abstract chemistry concept. Proficiency in chemistry literacy is the foundation in mastering basic concepts of chemistry, such as chemical interactions at microscopic, macroscopic, symbolic and process level as well as to understand and describe phenomenon scientifically. Objective of this study is to investigate chemistry literacy attainment at nominal, functional, conceptual and multi-dimensional level among high-achiever students in Malaysia. An exploratory research was carried out involving 105 students from high-achiever schools from a state in Malaysia. Students' levels of chemistry literacy was analyzed and measured using Chemistry Literacy Test. The study found that students' nominal and functional chemistry literacy were at satisfactory levels in terms of basic chemistry concepts. Yet, their achievement on conceptual and multi-dimensional levels were unsatisfactory. These results are discussed in relation to the problem-solving skills and interpretation skills of scientific investigation based on real-life situations and chemistry literacy.</p>
311	<p>Noor'Ain Zainal Abidin, Universiti Teknologi Malaysia; Mohamad Syazli Fathi, Universiti Teknologi Malaysia; Mohd Yusof Md Daud, Universiti Teknologi Malaysia; Harmi Izzuan Baharum, Universiti Teknologi Malaysia Project Manager's Competency: Current Context</p>	<p>Construction industry nowadays is becoming complex and dynamic in nature. Furthermore, the emergence of technology, such as Building Information Modeling (BIM), changes the way the project is being managed. Therefore, the need for the right competency is essential for those involved in the project. The study investigated the required competencies based on the current context. A case study was carried out at a technical organization in</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>Malaysia. Questionnaires were distributed to the respondents during a training session, a workshop and talk. The data were analyzed to evaluate which type of competencies was perceived importance by the respondents. In addition to that, the awareness and motivation levels towards learning were also measured. The results stated that the rank of competencies based on the project practitioners? perception were behavioral, technical generic, generic, technical, functional, information, communication and technology (ICT) and language competencies. The respondents also recognized the need for training and self-learning to improve their competencies. With these results, the organization could plan on its human resource development more effectively by implementing focused training. Hence, keeping the organization competitive. Lastly, project practitioners were required to keep abreast of any changes in managing the project and in order to do so, continuous learning is a necessity</p>
312	<p>Bosede Edwards, Universiti Teknologi Malaysia; Yahya Samian, Universiti Teknologi Malaysia; Nurbiha A Shukor, Universiti Teknologi Malaysia; Baharuddin Aris, Universiti Teknologi Malaysia Working Backwards To Effectiveness: A Critical Review Of Studies In Outcome-Based Education (OBE)</p>	<p>Outcome-Based Education or OBE has been lauded by its advocates and supporters as the way to go in 21st-century education. The approach, focused on a backwards design of instruction had been implemented across many regions. However, strong criticisms still trail the concept and it has been debated, suspended and cancelled in some areas due to protests and criticisms in spite of the strong opposing claims of its supporters. This study provides a critical review of studies in OBE. In addition, it highlights how qualitative analysis software can be employed for such purposes. An inductive content analysis was conducted on 24 studies selected based on preset criteria in line with the research objectives using the NVivo 10 CAQDAS. Findings show that most studies available are descriptive in nature; only about a fifth (20.8%) of reviewed studies was empirical, and focused within few subject areas. Key implementation demands include capacity building, leadership and curriculum mapping; thus requiring focused planning and huge investment. Criticisms border majorly around principles and religion. Teacher overload was also identified and findings further show that implementation has not been reported in any of North, East or West African regions.</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
313	Badr Alsolami, UTM The Influence Of Personal Factors On Hajj Crowd Perception Among African Pilgrim Group In Mina	<p>Devotional and ritual observance by African pilgrims to Hajj has a long standing history dating back to the early years of Islam in Africa through the Sahara desert. However, crowding during Hajj results from the large number of pilgrims visiting Mina at a given time. Hajj rituals are performed at Mina for a minimum of three days. Therefore, provision of adequate amenities by Hajj authorities requires constant assessment to enable pilgrims perform their rituals in optimum psychological state. Hence, this paper examines the effects of personal factors (expectation, control, sociability and mood) on perceived crowding levels among African group of pilgrims. Data was collected via self-administered questionnaire from 156 African pilgrims to Hajj. The data was analysed using SPSS for descriptive analysis and AMOS for Structural Equation Modeling (SEM). Internal consistency of the developed research instrument, Kaiser-Meyer-Olkin measure of sampling adequacy and exploratory factor analysis revealed that the research instrument was suitable. Among the African pilgrim group measurement model, control and sociability had the highest correlation while expectation and perceived level of crowding had the lowest correlation. Furthermore, control personal factor had the least insignificant impact on perceived level of crowding. Expectation and mood personal factors were both significant factors in this study. Policy formation on managing crowd levels and perception will invariably be strategic via incorporating the findings of this paper. Future research will be extended to assess the effects of other factors such as physical factors Hajj pilgrims.</p>
316	Muhammad Izzuddin Mohd Sofi, FKM,UTM Energy Absorption Capability Of Multi-Cell And Single Tubes Under Lateral Loading	<p>Thin-walled structure is widely used as an energy absorption system due to low cost, easy availability and light weight. Furthermore, the energy absorption performance of multi-cell thin walled has been reported to perform better compare to single thin walled structure. This paper addresses the energy absorption capacities of multi-cell and single thin-walled circular tubes under quasi-static lateral loading. The quasi-static compressive lateral loading test was performed to identify the deformation behaviour and energy absorption of multi-cell and singular thin-walled circular tubes. Thin-walled circular tubes are made of mild steel with 1.8mm thick, 60mm diameter and width 20mm was undergoes compression test to validate the</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		FE model. From the results, its show that the energy absorption performance of multi-cell thin-walled circular tube is perform significantly better than single thin-walled circular tube.
318	Mohd Adnan Kaus, UTM The Family Roles In Learning Physics Problem Solving From The Perspective Of Social Support	Problem solving has become one of the main objective of the Physics Curriculum all over the world. While having this skill, students were hope to manage and solve the daily problems, as long as a preparation for the tertiary level of education, and the problems they are facing at the work place after they graduated from universities. Even though this aim were realized by us, but previous studies showed that, the ability of the students in solving physics problem are still weak. So this study was conducted in order to explore what are the roles of family in order to help the students in learning physics problem solving from the perspective of social support. This study was conducted qualitatively towards a number of families (parents and siblings) by using semi-structured interviews protocol with face-to-face interviews in order to get the data. After the analysis, this study showed a number of social supports have been given to their children in order to learn problem solving in physics effectively.
319	Murtala Umar, UTM; Khairul Anuar Kassim, UTM; Zaharah Ibrahim, UTM RESIDUAL SOIL IMPROVEMENT USING LIME AND UREOLYTIC BACTERIA	Microbial Calcite Precipitation (MCP) is a technique that utilizes the concept of microbial involvements in calcium carbonate precipitation within the soil matrix structure. This leads to the cementation of the soil particles and consequently improving the strength and stiffness of the soil. In this study microbial carbonate precipitations were induced in tropical residual soil via urea hydrolysis. An isolate of urease active strain with similar properties to <i>B. Megaterium</i> was used to precipitates calcite into the soil with the aim of improving the engineering properties of the soil. Bacteria concentrations of 2.9_106 cfu/ml and 0.5 M cementation reagents concentrations were used to evaluate the strength and hydraulic conductivity of the soil. Curing temperatures of 40, 45 and 50oC and treatment durations of 24, 36, 48 and 60 hours were used in the study. The results obtained indicated a general increase in the strength and reduction of hydraulic conductivity of the treated soil as the curing temperature increases. Likewise, more strength improvements were reported with the introduction of lime in addition to the bacteria. The results so far obtained revealed that the higher the amount of calcite

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		precipitated the more the strength improvement up to 48 hours treatment duration; while the hydraulic conductivity continue to decrease up to the 60 hours duration.
320	Nusrat Jahan, UTM; Muhammad Arshed javed, UTM; Mudassir Israr Zaidi, University of Balochistan Biological screening of a medicinal plant <i>Acropitilon repens</i>	Biological assays of crude extract of <i>Acropitilon repens</i> (A.repens) family Asteraceae showed to be highly efficacious. Antibacterial, antifungal, insecticidal, phytotoxic and cytotoxic activity of the ethanolic extract of this plant was carried out. A.repens shown significant sensitivity against <i>Salmonella typhi</i> . No activities were shown against other bacterial strains. Sixty five percent inhibitory effects against one fungus <i>Macrosporium canis</i> was observed. Non-significant activity was shown against a common grain pest <i>Tribolium castaneun</i> . The crude extract <i>Acropitilon repens</i> (A.repens) also showed significant phytotoxicity inhibited 55% growth of plant <i>Lemna acqinoctialis</i> at high dose of 500?g/ml. A.repens was found to be mildly toxic and killed 16% shrimps at highest concentration of 1000_g/ml.
322	Rozita Nasiri, Universiti Teknologi Malaysia; Javad Hamzehalipour Almaki, University Technology Malaysia; Mahtab Nasiri , Islamic Azad University of Najafabad; Fahrul Zman Huyop, Universiti Teknologi Malaysia CHARACTERISTICS OF NOVEL DEHALOGENASE BACTERIA CAPABLE OF DEGRADING DALAPON ISOLATED FROM THE AGRICULTURAL AREA LOCATED IN UNIVERSITI TEKNOLOGI MALAYSIA	In agriculture, 2,2-dichloropropionic acid (2,2 DCP) is normally utilized as herbicide. Besides, it has been globally widespread as halogenated organic compounds causing pollution. In this study, a bacterial strain was isolated from contaminated soil where halogenated pesticides applied in Universiti Teknologi Malaysia and it was named ?RN1?. Bacterium RN1 was able to utilize 2,2 dichloropropionate 2,2-DCP or (Dalapon) as a source of carbon and energy. Based on 16S rRNA analysis, the isolate showed 94% identity to <i>Burkholderia</i> sp. TSH72. (Accession number: AB508863.1). The identity score was lower than 98% so that it was suggested to be new organisms that worth for further investigations if it will be proven that this is novel. Therefore, current isolate was designated as <i>Burkholderia</i> sp. RN1. The isolate grew in the minimal media containing 10 mM, 15 mM, 20 mM and 25 mM of 2,2- DCP as the sole energy and carbon source and the best growth rate was in 20 mM as the optimum concentration of 2,2-DCP while bacterial growth was inhibited in medium with 29 mM 2,2-DCP.
323	Mehdi Ghafouri, UTM VERNACULAR HOUSES CONFRONTING WITH MODERNIZATION: IMPACTS ON HARMONY OF CONSTRUCTION WITH SURROUNDING	Vernacular areas of Northern Iran are witnessing the emergence of modern material and technologies in house construction which changing the traditional sphere. However the phenomena may impact on harmonious, the study aimed to find people?s perception about harmony of different construction types both

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>traditional types namely Kali, Lar deh ee and Mud houses and new houses including Load bearing brick wall, Concrete structure and Steel structure houses, with surrounding environment. Five the most important elements of vernacular houses of the region, which are foundation, floor, wall, roof and attachments, are selected and questionnaire prepared about harmony of each of them with surrounded environment. The number of 167 participants, residents of vernacular houses, were asked in structured and open-ended questionnaire followed by informal interviews with 18 experts purposefully selected of them. Results showed that although traditional houses are in more harmonious with surrounded context and environment than new ones, but new lifestyle requires new houses and new material and technologies pave the path. It is to the architects to use the new technology and material in such a way that if not possible to design a house completely in harmonious with surrounded environment harm less.</p>
326	<p>Hadri Hussain, UTM; Chee-Ming Ting, Universiti Teknologi Malaysia; Muhammad Nasir Ibrahim, Universiti Teknologi Malaysia; Mariani Idroas, Universiti Teknologi Malaysia; Alias Mohd Noor, Universiti Teknologi Malaysia; fuad numan, Universiti Teknologi Mala</p> <p>DESIGNING AN AUTOMATIC IDENTIFICATION SYSTEM WITH DIFFERENT BIOMETRIC SIGNALS</p>	<p>Biometric signal has now been used to heighten up security in biometric system compared to traditional method using pins id tags and keys. Biometric system itself has evolved even further over the years for each category of the biometric characteristic structure from behavioural, physical and biosignal biometric. In this paper, behavioural and biosignal biometric is used. Behavioural biometric signals use is speech signal and biosignal signals used are electrocardiogram (ECG) and Heart Sound (HS). ECG and HS the signal itself is unique and still new to be used as biometric. The biosignal data involved in the proposed biometric system is initially segmented, for each segment Mel Frequency Cepstral Coefficients (MFCC) method is exploited for extracting the feature. Hidden Markov Model (HMM) is used to model the clients and classify the unknown input with respect to the modal. Client identification (CID) system involved training and testing session. This paper proposed three different type of biometrics signals for CID, with the best performance come from speech with an accuracy of 93.93%.</p>
327	<p>Ahmad Fathur Rahman Hasmiy, Faculty of Education</p> <p>PROMOTING METACOGNITIVE KNOWLEDGE THROUGH ONLINE SOCIAL LEARNING ENVIRONMENT</p>	<p>Metacognition plays an important role in studentsâ€™ learning. It represents studentsâ€™ knowledge about their own thinking and their ability in monitoring their thinking processes. There is also a handful of</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>research which shows that studentsâ€™ with high metacognitive abilities would perform well in academics. However, [1] reported that many learners have difficulty in performing metacognitive abilities spontaneously, which could have resulted in their lower performances. As mentioned earlier, metacognition involved a critical component called metacognitive knowledge. Metacognitive knowledge is one of the component of metacognitive abilities which refer to the individual own knowledge or ability to understand, control and manipulate their cognitive processes [6]. Assessing studentâ€™s metacognitive knowledge in learning is fundamental as the information will lead educators to gain insights into understanding studentâ€™s thinking processes. The extensive usage of technology in teaching and learning will lead educator in assessing studentâ€™s metacognitive knowledge in learning consistently. [13] reported that there has been an on-going discussion over the potential of social networking site in supporting teaching and learning through socializing. One of the most famous online social networking is Facebook. Facebook can be a platform for student to have an on-going discussion with proper guided by instructors. This concept paper discusses the types of metacognitive knowledge and suggests ways of promoting metacognitive knowledge that further could elevate studentsâ€™ performance through online social learning environment.</p>
328	<p>Nabihah Hussin COMPARISON OF PULSE LASER PERFORMANCE USING GRAPHENE BASED PASSIVE SATURABLE ABSORBER IN WATER SOLUBLE</p>	<p>We demonstrate a performance comparison by using electrochemically exfoliated graphene embedded in two different water soluble host polymer (polyvinyl alcohol (PVA) and polyethylene oxide (PEO)) as passive saturable absorber (SA) for Q-switched pulse generation in fiber laser. The recorded laser performance using graphene-PEO are 35 mW, 1564.2 nm, 13.38 kHz-24.54 kHz, 18.2 μs, 10.18 nJ, 0.53 mW and 38 dB. Meanwhile the recorded data for graphene-PVA are 39 mW, 1530.76 nm, 41.7 kHz-108.8 kHz, 1.82 μs, 2.1 nJ, 0.64 mW and 30 dB. The performance of both host polymers is comparable in term of threshold pump power, operating wavelength, maximum peak power and signal to noise ratio. Graphene-PVA based SA performance is superior to graphene-PEO in term of range of repetition rate and the generated shortest pulse</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		width. The range of the generated pulse laser with graphene-PVA is around 41.7 kHz to 108.8 kHz with the shortest pulse width of 1.82 μ s, compared to graphene-PEO which works in the range of 13.38 kHz-24.54 kHz with the recorded shortest pulse width of 18.2 μ s. Graphene-PEO based SA is producing the maximum pulse energy of 10.18 nJ compared to 2.1 nJ by graphene PVA based SA.
329	Azizah Yusof, Universiti Teknologi Malaysia; Babakura Mamman, Universiti Teknologi Malaysia; Hassan M M AbuHassna, Universiti Teknologi Malaysia; Hanan Aly, Universiti Teknologi Malaysia; Turki A. Al-Ahmadi, Universiti Teknologi Malaysia; NOOR AZEAN BI A Meta-Analysis on Design and Learning Strategies in MOOC	Massive Open Online Courses (MOOC) is now at the center stage of all facet of educational endeavor. It has led to the neutralization of the congested nature of conventional institutional learning setup, and caters for the yearning and aspiration of distance learners by providing a strategic opportunity through open educational resources (OER). Thus, there is a need to investigate the strategy that best suit learners? self-directed learning. Therefore, this article examines the design and learning strategy used in MOOC that can match self-regulated learning among MOOC student. The method employed in this paper was based on the search of relevant literature through online database such as IEEE Explore, ProQuest, ScienceDirect and ResearchGate. The keywords in the search for the relevant literature include MOOC and learning strategy, MOOC and design strategy, MOOC and self-directed or self regulated learning. The result of the meta-analysis revealed that MOOC and factors like self-efficacy and self-regulated learning are the most frequently used learning strategy to foster self-directed learning among those enrolled into the opened online course. Similarly, the most dominant design strategy employed in designing MOOC in most higher learning institution was found to be the blended MOOC. Finding of the review will greatly help facilitate MOOC designers to adopt the best strategy that would effectively suit MOOC learners who sought for a self-directed learning.
331	Zuraida Zaini Rijal, University Teknologi Malaysia BOND STRESS-SLIP BEHAVIOR OF DEFORMED STEEL BAR EMBEDDED IN STEEL FIBER REINFORCED CONCRETE	The function of steel fibers is well renowned to enhance the structural ductility by increasing the material toughness. In order to determine the behavior of hooked end fibers to restrain the concrete, the experimental study was carried out. Pullout tests on cylinder specimens with deformed steel bar embedded for a fixed length were performed under monotonic loading. The parameters used in this study were the different volumetric fraction of fibers of 0%, 0.25%, 0.5%, 0.75%, 1% and deformed steel bar diameters of

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>16mm and 20mm. The pullout tests outcomes disclosed that the fibers contribute to upturn the peak bond stress and also improve the ascending branch of the bond stress versus slip curve. The bond stress-slip response of the embedded bar in concrete restricted by the deformed steel bars and hooked end fibers were compared. It was demonstrated that the concrete confined by the 1% volume fraction of fibers showed better performance, in terms of toughness and peak bond stress; flexural strength and splitting tensile strength. Since the deformed steel bar with concrete fiber provides higher bond strength as compared to bond in normal concrete, therefore the use of steel fibers in concrete is suitable for the catenary action to work effectively in precast concrete beam-column connection for maximum efficiency and deformability in order to minimize the progressive collapse.</p>
333	<p>Oluyinka Solomon, University tun hussein onn malaysia; Wallace Enegbuma, Universiti Teknologi Malaysia EVALUATION OF CUSTOMER PERCEPTION TOWARDS INTERNET BANKING USING TRUST EXTENDED THEORY OF PLANNED BEHAVIOUR</p>	<p>Customer trust of a system leads to effective adoption and usage. This will aid ease of conducting commercial transactions and uplift satisfactory services. Internet banking in Nigeria is constantly facing challenges of distrust which invariably leads to hampering of increased adoption. The theory of planned behavior (TPB) examines how customers cope with new systems. This paper seeks to examine how trust is related to TPB and internet banking. Data was collected via a self administered questioner from 391 bank customers. The data was analysed using SPSS for descriptive and AMOS for multivariate analysis. The results showed that subjective norm had the highest effect on internet banking (0.61), attitude (0.29), perceived behavior control (0.24) and trust (0.21) respectively. This significant path will help policy makers to direct policy affecting internet banking.</p>
335	<p>Syuhada Mohammad Shahuddin, Universiti Teknologi Malaysia; Raja Zahilah Raja Mohd Radzi, Universiti Teknologi Malaysia DEVELOPMENT OF FAULT MANAGEMENT METAMODEL IN NETWORK MANAGEMENT</p>	<p>The expansion and complexity of network scale, management and maintenance has become critical and network management is an important component of the network. Network Management System is a combination of software and hardware that is designed to control, monitor and improve the network efficiency which supervised by network manager. Network devices (e.g. as routers, switches and servers) need fault monitoring to detect, analyze and recover errors that may occur on the device. There are varieties of fault types and some of the problems require human</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>intervention and some can be solve by automated computer program. Therefore, this research will identify the components of a network management system in order to develop a metamodel that serves as a reference for the network manager. The metamodel is focused on Fault Management in Network Management System. The development of the Fault Management Metamodel follows 8 Steps of Metamodelling Creation Process. A generic metamodel showing the fault process is reported in this paper.</p>
336	<p>Bablu Mandal, UMP; Shaheen Sarkar, UMP; Lutfor Rahman, UMP; Hasbi Rahim, UMP Kenaf Cellulose Supported Highly Active Poly(amidoxime) Palladium Complex as a Reusable Heterogeneous Catalyst for Allylic Arylation reactions</p>	<p>A highly active kenaf cellulose supported poly(amidoxime) palladium catalyst was synthesized and characterized with FTIR, UV-Vis, FESEM, XPS and TEM analyses. The catalyst (65 mol ppm to 6.5 mol ppm) was found to promote efficiently the allylic arylation of allylic ester with sodium tetraarylborates in ethanol at 60 °C temperature. Outstanding yields of the corresponding products as well as significant reusability of the catalyst were obtained. The total turnover number (TON) and frequency (TOF) were 144615 and 9641 h⁻¹ respectively.</p>
337	<p>Amirul Islam, UMP; Cheewai Woon, Universiti Mlaysia Pahang; Baranitharan Ethiraj, Universiti Mlaysia Pahang; Chin kui cheng, Universiti Mlaysia Pahang; Abu Yousuf, Universiti Mlaysia Pahang; Maksudur Khan, Universiti Malaysia Pahang Prolonged stability of air-cathode microbial fuel cell performance by inhibiting aerobic microbial growth using platinum and carbon nanotube (Pt-CNT) nanoparticles as a cathode catalyst</p>	<p>The inescapable growth of heterotrophic aerobic bacteria on the surface of air cathodes is an important factor causing oxygen depletion and substrate loss thus reduce the performance stability of air cathode single-chamber microbial fuel cells (MFCs). In this study, the possible use of platinum and carbon nanotube (Pt-CNT) nanoparticles as an antimicrobial agents as well as cathode catalyst for air-cathode MFCs was examined. The biomass content on carbon air-cathodes (CACs) was substantially decreased by 38.2% with Pt-CNT treatment after 26 days of MFCs operation. As a result, the oxygen reduction catalytic performance of the Pt-CNT treated CACs was much stable whereas the fast performance decline of the untreated cathode. Consequently, a quite stable electricity production was obtained for the MFCs with the Pt-CNT treated CACs, alternatively with a 22.5% decrease in maximum power density of the MFCs observed with the untreated cathode. Based on these results, it can be concluded that (1) the growth of oxygen-consuming heterotrophic microbes could be inhibited by Pt-CNT, (2) Pt-CNT could be applied as a cathode catalyst for oxygen reduction, thus (4) the MFC</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		with the Pt-CNT -coated cathode led to the enhanced stable current generation.
338	Mohamad Abu Bakar, UTM Public Engagement In Malaysia Highway Development: Key Issues	Concessionaires (also known as highway operators) often face numerous problems beginning from the initial stages of highway development. Be it - commercial, residential or amenities, categorized under the private or government land, concessionaires shoulder the responsibility of acquiring land to ensure the finest alignment of the highway development project from the public with the least amount of rejection. To do so, feedback from external stakeholders such as members of the public is highly desirable. Emphasizing on the proposed highway project in urban areas such as Kuala Lumpur where traffic is at a standstill, this study will focus on the analysis of feedback from affected residents and the public at large. It will address the major issue of the occurrence of traffic congestion although numerous highways have been constructed in the past.
341	Nabilah Zainal Abidin, Universiti Teknologi Malaysia; Fawazul Khair Ibrahim, Universiti Teknologi Malaysia; Raja Nafida Raja Shahminan, Universiti Teknologi Malaysia Redefining Furniture of the Traditional Malays	This paper discusses on the defining characteristics used in order to identify the various types of furniture used by the traditional Malays that are found in Traditional Malay Houses (TMH) of Malaysia. The scope of this research encompasses both the built-in and loose categories of furniture used in the daily lives of the traditional Malays. The findings of this study indicates that the traditional Malays define furniture differently than what is used today, therefore subsequently providing a substantial amount of items that can be defined as furniture which has not been discovered in previous researches.
342	NOR ASNI AZIZAN, STUDENT UTM KL; SAMIRA ALBATI KAMARUDDIN, UTM KL; NOR FARINA NADZIF, UTM KL; ZULHILMI ISMAIL, UTM SIMULATION OF STEAM-ENHANCED REMEDIATION FOR A PETROLEUM REFINERY CONTAMINATED SITE	This study presents the results of simulation for migration of light non-aqueous phase liquid (LNAPL) contamination at Port Dickson petroleum refinery and a remediation by steam injection using T2VOC numerical model. A kerosene leak of 20 years period from the distributing pipelines has caused a serious LNAPL contamination in the subsurface environments. Site investigations were conducted to identify the source of leak and to delineate the contaminations plumes. The numerical simulation investigates the distribution of LNAPL and remediation within economical and shorter timeline. In this study, T2VOC is used to simulate a three-phase non-isothermal single component flow in a partially saturated homogenous media for the injection of 876.5 kg of o-xylene in a two-dimensional

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>model. The model generated a distribution of LNAPL at a distance of 10 m for 5 years of injection period, while site investigation showed a migration plume of 100 m for 20 years of leak period. Verification with the formulation computed a plume length of 19.9 m. The simulation of remediation with steam injection showed that 90% of the LNAPL saturation was removed in 20 days of treatment. The result has therefore demonstrated the effectiveness of steam injection process for this study.</p>
344	<p>Fawaz Noman, UTM; Haslinda Mohamed Kamar, Universiti Teknologi Malaysia; Nazri Kamsah, Universiti Teknologi Malaysia Assessment of Thermal Comfort in the Mosque</p>	<p>Most of the mosques in countries with a hot and humid climate use a combination of natural ventilation and mechanical fans to provide thermal comfort to the occupants. However, in some cases the ventilation system is not capable of providing a thermally comfortable environment to the occupants. This article presents the results of a field measurement carried out on the Al-Jawahir Mosque located in Johor Bahru, Malaysia, during the time of Friday prayer of 11.30 a.m. to 3.00 p.m. The purpose of the study is to obtain the magnitudes of the air temperature, airflow velocity and air relative humidity inside the main prayer hall of the mosque. The measured values were compared to the corresponding limit specified in the ASHRAE Standard-55. It was found that the air temperature is about 35% higher than the range recommended in the ASHRAE Standard-55. The airflow velocity inside the prayer hall satisfies the requirement for a good thermal comfort. The air relative humidity inside the prayer hall however exceeds the limit stipulated in the ASHRAE Standard-55, by a significant margin. These findings suggest that the existing air ventilation method is not quite capable of providing adequate thermal comfort to the occupants.</p>
345	<p>Anthony Adjei-Twum, Universiti Teknologi Malaysia; Maimunah Sapri, Universiti Teknologi Malaysia; Sheau Ting Low, Universiti Teknologi Malaysia; Eugene Okyere-Kwakye, Koforidua Polytechnic DETERMINANTS OF HIGHER EDUCATION RESIDENTIAL STUDENTS? IRONING BEHAVIOUR: A QUALITATIVE STUDY</p>	<p>Ironing is one of the household activities that consume considerable amount of energy with high financial and environmental implications. Even though ironing has adverse impact on energy consumption, studies on ironing concerning energy usage are limited, specifically, in the context of higher education residential students. Hence this paper reports on an exploratory study that aim at understanding ironing behaviour of higher education residential students, that is, practising bulk ironing in order to save energy or ironing clothes as and when needed, and the factors that influence students? ironing behaviour. Data</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>for the study were obtained through focus group technique and analysed using qualitative content analysis in MAXQDA 12 qualitative analysis software. The results of the study revealed that majority of students in residential facilities do not practice bulk ironing which was attributed to both internal (personal) and external factors. Key internal factors identified to influence students? ironing behaviour included attitude (e.g. uncertainty, inconvenience) perceived behavioural control (e.g. time), social factors (e.g. norms, roles, self-motivation and demotivation) and habit. Also, the main external factors were physical factors (e.g. lack of storage facilities), availability of power, and background of the individual students.</p>
346	<p>Che Lukman, UTM Razak School of Engineering and advanced Technology; Mohamad Syazli Fathi, Universiti Teknologi Malaysia; zainai mohamed, UTM Razak School of Engineering and advanced Technology THE SCENARIOS-BASED METHOD OF CYBER-PHYSICAL SYSTEMS INTEGRATION FOR UNDERGROUND UTILITIES NETWORKS MANAGEMENT</p>	<p>The information visualisation in underground utilities networks management has a potential to change how people work and interact with their surrounding environment. Nowadays, the project team faced with various problems on-site mainly involves the management of underground utilities. This is because it involves a network of existing underground utilities that should be given special attention before any work carried out on the construction site. Often, there is uncertainty position of underground utilities network that ultimately pose a risk during the work on site is carried out. This paper focuses on describing the scenario-based method in technology of CPS-Integration with virtual reality and augmented reality for underground utilities networks management. The adoption of scenario-based method opens industry practitioners? eyes to a vast future construction landscape focus on long-term stories about the future. It also has been identified as a useful means of conducting strategic construction industry planning. Finally, the discussion of the CPS-Integration described to fulfill the requirements of industry practitioners regarding their reliability and how the proposed concept would enhance into practice. In other way, the existence of information visualization and communication technologies, offers the potential opportunities for enhancing the CPS-Integration in the underground utilities networks management.</p>
347	<p>ADILAH ABDUL KADIR, IPASA UTM JB ENVIRONMENTAL FLOW FOR SUNGAI JOHOR ESTUARY</p>	<p>Sungai Johor estuary is a vital water body in the south of Johor and greatly affects the water quality in the Johor Straits. In the development of the hydrodynamic and water quality models</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>for Sungai Johor estuary, the Environmental Fluid Dynamics Code (EFDC) model was selected. In this application, the EFDC hydrodynamic model was configured to simulate time varying surface elevation, velocity, salinity, and water temperature. The EFDC water quality model was configured to simulate dissolved oxygen (DO), dissolved organic carbon (DOC), chemical oxygen demand (COD), ammoniacal nitrogen (NH₃-N), nitrate nitrogen (NO₃-N), phosphate (PO₄), and Chlorophyll a. The hydrodynamic and water quality model calibration was performed utilizing a set of site specific data acquired in January 2008. The simulated water temperature, salinity and DO showed good and fairly good agreement with observations. The calculated correlation coefficients between computed and observed temperature and salinity were lower compared with the water level. Sensitivity analysis was performed on hydrodynamic and water quality models input parameters to quantify their impact on modeling results such as water surface elevation, salinity and dissolved oxygen concentration. It is anticipated and recommended that the development of this model be continued to synthesize additional field data into the modeling process.</p>
350	<p>Abdilahi Liban, Al-Madinah International University; Shadi Hilles, Al-Madinah International University Latent Fingerprint Enhancement based on Hybrid Model</p>	<p>Latent Fingerprint Matching assists for law enforcement agencies to identify criminals. Even-though considerable progress done in both rolled and plain fingerprint images, latent fingerprint enhancement still a challenging problem and existing issue in the current research. This is due to the existence of poor quality images in latent fingerprint with unclear ridge structure and various overlapping patterns together with presence of structured noise. Prior to latent fingerprint segmentation and feature extraction, latent fingerprint image enhancement is necessary step to suppress different noises and improve the clarity of ridge structure. This paper reviews the current techniques used for the latent fingerprint enhancement. Thus, it proposes hybrid model which is combination of Edge Directional Total Variation Model (EDTV) and quality image enhancement with lost minutia reconstruction technique based on reliable frequency estimation and orientation field. NIST SD27 database is used to test the proposed technique. To measure the performance RMSE</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		and PSNR are deployed. The result of the proposed technique shows enhancement of clarity of input latent fingerprint images and denoising of good, bad and ugly images of latent fingerprint with slight differences.
351	Ernie Mohd Yusof, Universiti Teknologi Malaysia; Mohd Shahizan Othman, Universiti Teknologi Malaysia & Faculty of Computer Science and Information Systems; Ahmad Rizal Mohd Yusof, Universiti Kebangsaan Malaysia ENHANCED DASHBOARD FOR OPERATIONAL DECISION SUPPORT IN MANUFACTURING BASED COMPANY	A manufacturing-based organization needs fast and effective decisions in its operation that is handled by the order management section. The Key Performance Indicator (KPI) of the section is to meet the products delivery to customers. Presently there are manufacturing systems that collect operational order management data but the data are in high volume due to numerous customer orders. Having a lot of data without a tool to analyze and extract valuable information will increase the employees' time spent on the data. This leads to delay in the decision making process, resulting in the delay of product delivery to the customers. To overcome this problem, an Operational Dashboard (OD) framework and its characteristics were developed and studied. The OD system was successfully implemented whereby more than 95% of the on-time product delivery performance of the organization was achieved. The characteristics of the OD that are required in supporting the decision making process were real-time, graphical, drill-down function and displayed operational status of data. The design of this OD framework was an extension of previous OD frameworks. In conclusion, this OD system is determined as effective in improving the decision making process of the order management section of the manufacturing organization.
352	SURAIYA MUHAMAD, UTM JOHOR BAHRU; Jamalluddin Harun, Universiti Teknologi Malaysia; Johari Surif, Universiti Teknologi Malaysia & UTM; Noor Dayana Abdul Halim, Universiti Teknologi Malaysia; Siti Salbiah Omar, Faculty of Education; Muhammad Umar Khan, Fa PROBLEM SOLVING COMPETENCY FOR OPEN-ENDED PROBLEM IN LEARNING ELECTROLYSIS: A CASE STUDY OF MALAYSIAN SECONDARY SCHOOL CHEMISTRY STUDENTS	This paper discusses a preliminary study which was undertaken to develop a model of authentic chemistry problem solving competency in learning chemistry. Recent poor performance of Malaysian students in the Programme for International Students Assessment (PISA) on problem solving test could be due to a pervasive pattern of low application of higher order thinking skills in solving the open-ended problems in Malaysian teaching and learning scenarios. Hence, this study investigated how secondary school students solve open-ended problems in learning electrolysis and what are the underlying factors of their problem-solving competency. Five chemistry students from a secondary school in Sarawak were selected as the participants. Semi-structured interviews and think aloud protocol (TAP) were conducted to

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>investigate their problem solving processes practice. Quite similar findings have emerged: participants that scored with good score in chemistry problem solving ability test (CPSAT) have higher scientific knowledge and problem solving skills compared to low achieving participants. Scientific knowledge competency and problem solving skills have been identified as the major independent variables to develop chemistry problem solving competency. Outcomes from this study shall be used to design a module for one selected topic in chemistry and to develop a ?Model of Authentic Chemistry Problem-solving Competency? for school students in general. Keywords: Problem-solving competency, Higher order thinking skills (HOTS), Open-ended problem</p>
353	<p>Muhammad Aizi Mat Salim, University of Malaya; Harith Bin Ahmad, University of Malaya; Saaidal Razalli Azzuhri, University of Malaya; Sulaiman Wadi Harun, University of Malaya TUNABLE WAVELENGTH GENERATION IN 1-MICRON REGION INCORPORATING 16-CHANNELS ARRAYED WAVEGUIDE GRATING (AWG)</p>	<p>A tunable single and dual-wavelength ytterbium-doped fiber laser, incorporating 16-channels arrayed-waveguide grating is proposed and demonstrated. The SMSR or side mode suppression ratio from the proposed setup had an average value of 52.97 dB (single-wavelength generation) and 58.19 dB (dual-wavelength generation). Tunable dual wavelength ranging from 1039.98 nm to 1047.48 nm with wavelength spacing ranges from 0.50 nm to 7.5 nm. The stability test from the experiment showed a power variation of 0.8 dB and wavelength fluctuation of 0.02 nm indicates a stable and reliability of the proposed work.</p>
354	<p>Humaira Abdul Latif, Universiti Malaysia Pahang (UMP) Exploratory study of the awareness on diabetes mellitus</p>	<p>Diabetes is a steadily growing problem in Malaysia and the increase of diabetic?s patients in Malaysia is worrisome. The cause of diabetes is a mystery, although both genetics and environment appear to play roles. Therefore, this study aimed to test Diabetes Mellitus Awareness Model (DMAM) that consists of several latent factors i.e. knowledge, attitude, environment, symptom and diabetes awareness. Ten hypotheses have been proposed to test the relationship between five indicators in the model. Partial Least Squares-Structural Equation Modelling (PLS-SEM) technique was used by using the SmartPLS software to analyse the model. The study was conducted at two health clinics under Ministry of Health (MOH) in Pahang. A convenience sample of 441 adults was obtained for this study. The result shows that knowledge has a significant impact on environment, attitude and awareness. Likewise, environment significantly</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>influences the attitude and attitude significantly influences awareness. However, the study also found that there was no significant relationship between knowledge towards symptoms, environments towards awareness and symptom, attitude towards symptoms and symptoms towards awareness. Overall, this study concludes that the relationships that are statistically significant should be taken due care by the health authorities in order to raise diabetes awareness through indicator in the model.</p>
355	<p>NAJIYU ABUBAKAR, UTM OPTIMAL PERFORMANCE OF IN-SITU REINFORCED CONCRETE BRIDGE DECK SLAB ON PRESTRESSED CONCRETE BEAMS</p>	<p>This article explains an economical design details in achieving a desirable performance in bridge deck slab supported by a wide flanged T-beams. The method was used to evaluate the ultimate capacity and modes of failure of the supporting beams. The carrying capacity of the slab deck is expected to be enhanced by the stiffness and rigidity of the beams. Factors affecting the ultimate capacity and modes of failure were investigated and used as a basis for the provision of a modified design approach. The results obtained from full scale-test on flanged beam highlights a positive response of the wide T-beam flange capacity in bearing the bridge vehicular loadings. The approach would necessitates the use of reduced amount of steel reinforcement present in bridge deck slab which in turn reduces the total construction cost and a lesser frequency of maintenance activities and costs.</p>
356	<p>Nurhashimah Za'ba, Universiti Teknologi Malaysia A Review on Research in Development of TPCK Among Mathematics Teachers</p>	<p>The challenge in mathematics education is to make mathematics teachers to integrate technology during their teaching and learning session. Therefore, many researchers were investigating the solutions to solve the problems in the phenomenon of teachers integrating technology into their pedagogy. TPCK (Technological Pedagogical Content Knowledge) was introduced as a framework as well as a guideline for the researchers who's working to implement technology integration among teachers in schools. This framework is usually used by the researchers to construct a teacher professional development program. The aim of this paper is to review some of the mathematics teacher professional development program projects which implemented TPCK on their construct of the projects. The projects were studied along with the rationale and impact of all components to pre-service mathematics teachers? practices during the</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>program. Several research papers were selected and meta-analysed. Based on the findings, TPCK is used as a model to construct conceptual frameworks for mathematics teachers to gain knowledge of content, pedagogy and technology. TPCK framework is also used to make instruments in assessing teacher's knowledge. From the review, it can be concluded that TPCK framework is a valuable tool to design and assess mathematics teacher's knowledge.</p>
357	<p>Parviz GHOJOGH NEJAD, UTM Approach To Environmental Sustainability And Green Campus At University Technology Malaysia: A Review</p>	<p>Urban environmental quality and environmental pollution are complex and changing. University campuses are linked to cities through transportation, land use, landscape design, storm water runoff, energy use, and operational activities. Green House Gasses (GHGs) are emitted into the atmosphere each day due to electricity use, travelling on campus by staff and students, and through solid waste. The release of GHGs, especially CO₂ into the atmosphere, results in climate change, or global warming. Significant needs for information on GHGs emissions and the growing number of proposals for legislation to control these emissions peoples clearly showed that there is a need for methodology in addressing GHGs emissions, and their environmental impact. This paper focus is on the emission of CO₂ from energy use within the campus of Universiti Teknologi Malaysia. This study will review the application of compliance plans and methods toward controlling and monitoring the environmental sustainable categories and parameters. Three parameters and major sources of energy consumption were identified, namely: electricity, transport and solid waste due to campus environmental sustainability. Data are collected from thesis at the Perpustakaan Sultanah Zanariah (PSZ) library UTM. Each parameter was evaluated using the proposed model based on the information from the representatives and researchers. The performance of each model to reflect their sustainability achievement goal was determined by information from the respondents. Some constraints to the practice of sustainability concepts and measures to improve the dormitories sustainability level are suggested. It is concluded that universities should adopt the criteria set in the UI Green Metric World University Ranking to achieve better sustainability in their campuses and improve quality of life of their stakeholders.</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
358	Huma Basheer, Universiti Tun Hussein Onn Malaysia (UTHM); Azme Khamis, Universiti Tun Hussein Onn Malaysia (UTHM) Forecasting Of Crude Palm Oil Price Using Hybrid Model Of Group Method Of Data Handling With Wavelet Decomposition	Forecasting of Crude Palm Oil (CPO) is one of the most important and the largest vegetable oil traded in the world market. This study investigates the forecasting of Crude Palm Oil (CPO) price using a hybrid model of Group Method of Data Handling (GMDH) with discrete wavelet decomposition. The original time series of Crude Palm Oil (CPO) were decomposed into the spectral band. After that, these decomposed subseries were given as input to the GMDH model to forecast the Crude Palm Oil (CPO). The performance of the hybrid GMDH is compared with that of the conventional GMDH. The performance measures, the mean absolute error (MAE) and the root mean square error (RMSE) shows that the hybrid GMDH algorithm gives more accurate predictions than the conventional GMDH.
359	Leila Ezzat Zadegan, Leila Ezzat Zadegan; Noor Azian Morad, MJIT; Rubiyah Yusoff, MJIT Neuro-Fuzzy Modeling To Pronostigate Bio-Ethanol Concentration In Fermentation Process	The use of bioethanol as a renewable energy source is getting more attention in recent years due to rising concerns over depleting fossil fuel, rising oil prices, and climate change. Oil palm plantation generates a large amount of oil palm trunk in Malaysia. Fermentation process as a big challenging step in producing bio-ethanol depends on several factors like: fermentation time, temperature, PH. In this study a hybrid Neuro-fuzzy model (ANFIS) that has been used as a powerful tools for system modeling in many fields was developed to prognosticate bio-ethanol production from oil palm trunk sap (OPTs) in fermentation process. Quantity of achieved correlation coefficient (0.92) and root mean square error (0.2465) for validation of model demonstrate the model reliability. The optimization result by using particle swarm optimization (PSO) method indicated that the maximum bi-ethanol production (34.26 g/l) is possible by using Saccharomyces cerevisiae as a strain with 47.84 hours fermentation time at 27.2 °C. The ANFIS method can be used in large scale bio-ethanol production.
361	Nurul Abd Karim, UTM Application Of Ground Penetrating Radar On Soil Water Content Estimation: An Overview	Understanding the patterns of soil water content (SWC) distribution is helpful to an extensive variety of organizations concerned with the climate and atmosphere, soil preservation, rural creation and scene administration. However, the immense heterogeneity in the spatial and transient dissemination of soil water and the need of standard strategies to estimate this property restrict its measurement and use in research. Even though the past researchers

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>have been trying various techniques and methods on soil water content estimation, the results is still in point of debate. Ground-penetrating radar (GPR) is a geophysical techniques that have been used by a number of previous researchers to characterize soil water content. This reviews evaluate the GPR measurement techniques on soil water content estimation. Advantages of GPR complex to conventional technique and modern technique. To distinguish the methodologies for SWC by using GPR. Three methodologies of GPR (i.e.,borehole, groundwave, reflection) is discussed for SWC estimation. This reviews will be helpful to reviewers, researchers, agricultural scientists in finding the best methods and techniques to estimate soil water content.</p>
362	<p>NYANGWARIMAM ALI, UNIVERSITY OF TECHNOLOGY MALAYSIA Bandwidth Controllable Vivaldi Antenna Using Pin Diodes</p>	<p>This paper proposes a bandwidth controllable Vivaldi antenna. The Vivaldi antenna is incorporated with two pairs of resonator slots for the purpose of switching. Pin diodes are used to switch ON/OFF the resonator slots one pair at a time. A DC biasing network is formed around the antenna to aid switching. The bandwidth of the Vivaldi antenna can be controlled from a wideband (1.08GHz to 3GHz) to two varying narrower bandwidths at 2.6GHz. The design is simulated in CST microwave studio using FR4 substrate and has been confirmed through fabrication and measurement. This antenna is good for applications requiring bandwidth control.</p>
364	<p>Sani Lawan, Universiti Teknologi Malaysia Intensity Loss Equalization In Optical Fiber Link</p>	<p>Attenuation or intensity loss causes pulse degradation this limits the distance of signal transmission along the fiber. Technique of optical fiber equalization using a span of amplifying fiber is used to alleviate the problem of attenuation. The Nonlinear Schrödinger Equation is approximated to represent attenuation effect and it is simulated in Matlab environment. The results show that pulse intensity loss increase with increase in the transmission distance along the fiber and the proposed amplifying fiber is used to regenerate the signal.</p>
365	<p>Aslinda Abas, Faculty Of Education A Meta-Analysis On Teachers' Teaching Practices And Self-Efficacy</p>	<p>This paper was designed to analyze teachers? teaching practices and the level of self-efficacy in the implementation of learning in schools. The analisis was done to identify the variety of teachers? teaching practices based on different subjects and samples. However, some findings have not clearly shown the relationship between teachers? teaching practises and the level of</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>self-efficacy. The findings shown some teachers have planned their lesson plan, however, in term of implementation, there were some differences regarding the modifications of the syllabus. To achieve the maximum level of self-efficacy, teachers used the highest levels of knowledge, understanding and application. The finding of the reserach regarding teachers? teaching practices found the improvement of teachers? knowledge through guidance and training will be able to increase the teachers? quality and the level of self-efficacy. Thus, elements such as class improvement and arrangement and complete teaching aids should be improved to fit the process of teaching and learning. Key words: Teachers? teaching practices, self-efficacy, teaching and learning</p>
367	<p>Umar Abdul Hanan, Universiti Teknologi Malaysia; Shukur Abu Hassan, Centre For Composites, UTM; Mat Uzir Wahit, Centre For Composites, UTM; Siti Jamal, FKM, Centre for Composites UTM Mechanical Recycling of GFRP Waste as Reinforcement in Polyester Composites</p>	<p>Fibre reinforced composites from thermosetting polymers are not easily recyclabe because they are cross linked and not able to remoulded, unlike thermoplastics which can be remelted. However, several techniques can be used to breakdown these waste materials such as thermal recycling, chemical recycling and mechanical recycling. The purpose of this study was to determine the mechanical properties of glass fibre recyclates (rGF) reinforced unsaturated polyester composites. Raw rGFs were produced by mechanical recycling of glass fibre reinforced polymer (GFRP) waste. Different weight percentage of raw rGFs consists of 5, 10, 15, 20 and 25 wt.% were mixed into unsaturated polyester (UP) and formed into composites plate using compression moulding. In this study, three types of rGFs was used which is coarse, fine and raw (not sieved). Raw rGF was wash and sieved into coarse and fine grade to improved the tensile properties of the composites. The tensile strength of Raw rGF-UP was half of pure UP regardless of rGF weight percentage. Compared to raw rGF, sieved rGF has better tensile strength due to better fibre distribution of rGF and uniformed fibre length. Coarse rGF composites which contains relatively larger aspect ratio has better tensile properties than Fine rGF.</p>
369	<p>Zulhelmi Zulkpli, UTM; Mohini Mohamed, UTM Teaching Thinking Skill: Teachers' Knowledge On Malaysian Mathematics Teacher</p>	<p>Teachers? knowledge is the main pillar in the success of carrying out Thinking Skills in teaching and learning mathematics. However, some studies claims that teachers are confused and not ready and to teach thinking</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>skills due to insufficient knowledge of thinking skills. Thus, this quantitative study aimed to identify the level of teachers' knowledge in teaching thinking skills. A total of 199 mathematics teachers were selected as the respondents in this study. All collected data were analysed inferentially to identify the levels of teachers' knowledge teaching thinking skills across school categories. Results showed that primary school mathematics teachers have relatively lower levels on knowledge in teaching thinking skills than secondary school mathematics teachers. This study to create the awareness, and enhance teacher's thinking skills in teaching Mathematics. Furthermore, this paper will also encourage teachers to promote teaching higher order thinking in their teaching classroom.</p>
370	<p>Ali Ado Siro, USM Pulau Pinang, Penang Police Force and Urban Kano Security Management: Prospects and Challenges</p>	<p>Domestic insecurity management in developing societies has been one of the key elements following United Nations Summit in 1994. This problem becomes a common characteristic of some northern Nigerian states in the contemporary times. Being in the affected region, urban Kano suffers from this ailment calling for public total concentration in ameliorating the situation. However, police Agencies are always central to security management the world over. The main thrust of this research is to elucidate the prospects and challenges of the force toward urban Kano security management. The study utilised the qualitative data collected through in-depth interviews with the five selected police officers in the state headquarters. The results indicated that, although trying their best in protecting the lives and properties of the civilian populace, the agency faces some serious challenges. These include; inadequate personnel and working tools, poor welfare, lack of motivation, nepotism and corruption. Collaborative efforts from both government and the public are therefore needed if the police force is to work efficiently in safeguarding the security of the civilian populace.</p>
371	<p>Yahya Al-dheleai, UTM Social-Based Learning Interaction Through Social Media That Enhances Students' Academic Performance</p>	<p>The purpose of this study is to examine the affordance of social networking tool Facebook to facilitate instructor-student and student-student course-related interaction and its impact on students' academic performance, additionally, the study will identify the patterns of students' social presence of Facebook. Furthermore, students' perception of instructor-</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>student and student-student course-related interaction on Facebook will be investigated. In methodology part, current study will use qualitative and quantitative research methods for data collection and analysis as it will employ questionnaire and Facebook transcript as instruments of data collection. The respondents of this study will be master student in one of Malaysian public universities. The questionnaire data will be analyzed using SPSS software. On the other side, Facebook transcript will be analyzed using content analysis technique. Finally, it is hoped that the findings of this study will encourage instructors, students, and higher education institutions to adopt Facebook as a medium of online interaction to overcome some of the limitations of current learning management system.</p>
372	<p>Muhammad Murad Khan, Universiti Teknologi Malaysia Classification of Facebook related academic research with respect to required privileges</p>	<p>Among existing social medias, social network has biggest share and Facebook dominates it by being world's biggest social networking platform. Facebook aim to host all multimedia information related to its users e.g. posts, comments, pictures, videos etc. therefor it has always been center of interest for researchers from diverse perspectives. This study aims to identify existing research areas that use Facebook as research subject and classify them according to appropriate privileges. Four set of privileges were identified on Facebook, and primary studies are classified accordingly, among which 'user data permissions' were most detailed and widely utilized by researchers. Although user data permissions dominated academic research, they also pose threat of user personal information breach. This cause hesitation among research subjects and influence results. Another set of permissions i.e. 'Events, groups and pages' is partially public in nature, has been researched scarily but provide similar information as 'user permissions'.</p>
376	<p>MANSIR DODO, UNIVERSITI TUN HUSSEIN ONN MALAYSIA; NARIMAH KASIM, UNIVERSITI TUN HUSSEIN ONN MALAYSIA; INDERA SYAHRUL MAT RADZUAN, UNIVERSITI TUN HUSSEIN ONN MALAYSIA Factor Exploration Of Disaster Risks For The Sustainable Conservation Of World Heritage Sites In Malaysia</p>	<p>Several hazards which culminate into disaster have left devastating effects at World Heritage Sites (WHS's). The protection of WHS's (otherwise termed conservation) as such, calls for the proactive reduction of Disaster Risks so that the effects of such hazards culminating to disasters will bring about minimal devastation. Although there exist researches on Disaster Risks (DR's) within the context of threats to WHS's in Malaysia, not much is available in literature on exploring the interplay between</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>such hazards culminating to disasters at WHS?s and the other two variables (vulnerability and capacity) which alongside hazards, collectively define DR?s. This research as such aim to examining the interplay of Hazards, Vulnerability and Capacity so as to develop a Disaster Risk Assessment (DRA) framework for the sustainable conservation of WHS?s in Malaysia. Data fetched by means of a Pilot Survey at Melaka WHS and analysed by means of an Exploratory Factor Analysis using IBM SPSS Statistics 21 resulted to the extraction of 10 factors which upon grouping, defined the variables for this study. Collectively, these variables form the items of the framework that will hopefully be used for DRA in WHS?s. This study is a build-up of an ongoing Ph. D. research.</p>
377	<p>Hashim Ali, Hashim; HASHIM ALI, HASHIM Develop Algorithm For Change Detection Of The Salinity From Landsat-8 Images</p>	<p>The main Iraq?s water resources are based on two rivers, Euphrates and Tigris Rivers. They are flowing from north to south until they joined to form marshes such as AL-Hawizeh marsh. It is one of the major marshes southern Iraq. This marsh is covered an area of 2,500km²-3,000km². It considered as a settlement area for birds and fishes, therefore it represents an important source for fishing and irrigate farmland. The domestic and industrial pollution sources as well as a hydroelectric power generation along the Euphrates and Tigris rivers have led to reduction and deterioration of water quality in this marsh. Salinity in the Tigris and Euphrates rivers near their discharge point at the marsh ranges from 0.5 to 2 parts per thousand. This gives 74% of irrigated land suffering from certain degree of salination. Optical remote sensing sensors such as Landsat-8 (OLI/TIRS) have showed excellent promises for salinity change detection. This is because their abilities to determine spectral signature of any object on the ground and water bodies. The aims of this study to develop mathematical algorithms for the salinity change detection from Landsat-8 data as well as to determine the concentrations and distributions patterns for salinity during four seasons. The combination between remote sensing and geographic information system for evaluating water quality parameters such as the salinity. Moreover using geographic information system to map the spatial variation of salinity distributions within AL-Hawizeh marsh southern Iraq during four seasons in 2013.</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
378	Abdurrahman Garba, University Tun Hussein Onn Malaysia MODELING OF LEAD (II) ADSORPTION ON A TREATED RICE HUSK: FIXED_BED STUDIES	The treated rice husk has been evaluated as a biosorbent for removing lead (II) from aqueous solutions in fixed-bed studies. In this paper, the effects of flow rate (3 and 9 mL/min), bed depth (0.9, 1.8 and 2.8 cm) and influent lead concentration of (5 and 20 mg/L) on the adsorption capacity of the adsorbent in a fixed-bed column were investigated. The highest adsorption capacity (78 %) on a 20 mg/L Pb (II) solution was achieved within a flow rate of 9 mL/min and a bed depth of 2.8 cm. The experimental data obtained from the adsorption process was correlated with the Thomas, Adams_Bohart and Yoon_Nelson models. The results of the parameters indicated Yoon _ Nelson model fitted well over the other models.
381	Noor Adibah Najihah Mat Noor, UTM OVERVIEW OF NON-PHOTOREALISTIC RENDERING TECHNIQUES	Non-photorealistic Rendering (NPR) covers one part in computer graphics that caters towards generating many kinds of 2D digital art style from 3D data, for instance output that looks like painting and drawing. NPR includes the painterly, interpretative, expressive and artistic styles, among others. NPR research deal with different issues such as the stylization that are driven by human perception, the science and art that were brought together and being harmonized and the techniques used. This paper discusses some of approaches used in NPR and the proposed plan for hybridization of NPR techniques. Based on findings from the review, we conclude this paper with a proposed hybrid technique to create interesting results.
382	Abdul Rauf Abdul Rasam, USM GIS Model for Identifying High Tuberculosis Risk in Urban Areas of Shah Alam, Selangor	Ministry of Health Malaysia may need an innovative method to enhance existing tuberculosis (TB) detection in the local risk areas such as at Section U19 of Shah Alam, Selangor. A geographical information system (GIS) based index model is an alternative proposed for determining potential risk areas of local TB. It is a multi-criteria decision making (MCDM) method employed for ranking environmental risk factors for TB using a five score class. The score values are then combined with an expert weight value to produce a risk map. It is revealed that the potential risk areas in the Section are 71.43%, including a medium to a very high class areas. This predictive result is also consistent with the current cases in 2015 with 76.00% accuracy. It is identified tuberculosis infection would be easily transmitted in urban and crowded environments, while a GIS-based index model

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
383	Muhamad Faizal Mohd Yusuff, Universiti Teknologi Malaysia CRUSH ANALYSIS OF DOUBLE-HAT SECTION LONGITUDINAL FRONTAL RAIL	<p>has capabilities to be applied in local TB screening and vulnerability monitoring.</p> <p>Crashworthiness performance has become a major factor that should be seriously considered in structural design requirement. Demand for level of safety on energy absorbing devices especially during impact event has led to considerable research on the energy absorption system. As frontal rails are the main components to absorb energy during collision, the analysis for this structure energy-absorbing characteristics have been examined. The aim was to determine the crush response and energy absorption capacity of double hat section under impact loading. In this work, the finite element model was validated by comparing with the experimental results to determine its reliability. The validated finite element model were then used to study the crush response and energy absorption capability. Such performance was determined by varying various parameters namely thickness of the tube, number of spot-weld and draft angle. The results show that the energy absorption response can effectively be controlled by using those parameters. From this study, the understanding is gained on how the geometry and loading parameters can be used to control the absorbed energy. Overall the outcome of this research can be used as the design guidelines for the use of double hat section tubes in crashworthiness applications. Keywords : Crashworthiness, finite element model, validate, parameters</p>
385	Suria Mohd Samdin, Politeknik Ibrahim Sultan A STUDY ON DRIPPING TIMES OF LATEX AND FORMIC ACID IN COAGULATION PROCESS USING MIXER MACHINE	<p>ABSTRACT A semi-automatic mixer machine of latex and formic acid is designed to produce better uniformity of a rubber sheet, as well as to reduce injuries due to chemical reagent handling during the coagulation process. This study aims to investigate the dripping times of latex and formic acid to produce a standard size of rubber sheet. The volumes of latex and formic acid required in preparing a standard rubber sheet are 6 liters and 0.4 liters, accordingly. A micro-controller type INFIDUINO UNO R3 was used to control the servo motors that activate the valves of latex and formic acid. The constant flowrate of both materials was measured at 2.34×10^{-4} m/s using Wolfram Interactive Demonstration Software. The optimum dripping times of latex and formic acid were calculated at 25.67 s and 1.17 s, respectively. As a conclusion, this mixer</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>machine could be an innovation to Malaysian rubber industry to reduce the wastage of resources and prevent hazards during the rubber sheet preparation process. Key words: Latex, Formic Acid, Coagulation process, Dripping time, Rubber sheet</p>
387	<p>Samira Rastbod, UTM WHICH EFFECTIVE ATTRIBUTES OF PUBLIC SPACE ELEMENTS RAISE QUALITY OF NEIGHBOURHOOD PARKS</p>	<p>There is a strong relationship among people, the social environment and also physical environment. Therefore, this paper examined the effective physical and social elements in public spaces, which can attract and satisfy people to being there. The results of this paper show that positive correlation was established between satisfaction with the park's attributes and people activities.</p>
388	<p>Faysal Ahmed, Universiti Teknologi Malaysia Ensuring Sustainable Working Environment in an Organization through Highest Level of Employee Satisfaction by Human Resources Department (HRD)</p>	<p>This conceptual paper makes a strong relationship between employee satisfaction and sustainable working environment. Employee satisfaction is mostly desire to keep the organization's operation as long as they want. In the competitive market, employee satisfaction helps to maximize profits with the least amount of resources by retaining them in the organization. Sustainable working environment is the key to achieve long term goals and objectives by the effective workforce. Nowadays, both large and small companies are learning that sustainable business practices not only help with the environment, but also can improve profitability by making greater efficiency, less liability exposure, less waste and better community with harmonious employee-employer relationship. Adopting a high-performance culture creates employee satisfaction and they put their best effort with high motivation to ensure success of the organization. As a responsible and an important part of the organization, Human resource department can ensure mutual interest between employee and employer. Employee satisfaction at work that totally comes from the fair HR practice and the ultimate results goes to organizational sustainability for the long-run marketplace.</p>
389	<p>Zatul Iffah Mohd Fuza, Fab, Utm; Hairul Nizam Ismail, UTM; Sulaiha Mohd Isa, UiTM Terengganu PATTERN ON INFORMATION COMMUNICATION TECHNOLOGY (ICT) ADOPTION: A TOUR OPERATORS EXPERIENCE IN THE EAST COAST REGION MALAYSIA</p>	<p>Vast ICT development has led to the reduction of traditional succour for Tour Operators (TOs) professional travel consultation and other requirements in assisting consumers' travel arrangements. This is caused by penetration of online services which enables consumers to reach travel suppliers directly. Such advancement has impacted in the drastic changes of these consumers behaviours to</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		<p>arrange travel plans and other related services on their own. Hence, to ensure competitive existence of TOs as middleman, this paper aims to investigate the pattern of ICT adoption among TOs to remain competitive in the market, particularly in East Coast Region, Malaysia and cross examine the extent of ICT used in line with Malaysia's Digital Communication Plan 2013-2014. Descriptive research design were applied using questionnaire data collection method to investigate TOs ICT adoption pattern. Random sampling method were used to distribute the questionnaires via face to face or through online survey targeting TOs in the state of Pahang, Terengganu and Kelantan. SPSS and SEM-PLS were further employed to analyse quantitative information. The result indicates that both mobile devices and e-commerce categories are the most trending types of ICT adopted by TOs in East Coast Region, Malaysia as a competitive weapon to remain in the industry.</p>
390	<p>Dedy T. Suprayogi Wave Spectral Energy Study of Fishing Boats Generated Waves in River Area</p>	<p>Boat generating waves can cause banks erosion and also make disturbance of parking boats. The waves are critical if occurred in river as this area is restricted between the banks and also shallow water. Boat generated waves are dependent on and affected by environmental factors and vessel parameters. In this paper considered the environmental factor as tidal and for vessel parameter as speed. The paper will describe the result of a full-scale experimental work to measure wave heights and wave spectral energy of fishing boat in the Mersing river. The boat with a typical size of 14.05 ? 4.35 ? 1 m (length ? width ? draft) and run at speeds between 6 to 10 knots. The comparison of wave spectral and energy at various parameters such as tidal condition and the speed of fishing boat will be presented.</p>
392	<p>Buhari Mamman Hassan, UTMH Malaysia; Muhammad Mahadi Abdul Jamil, UTHM; Mohamad Nazib, Adon INVESTIGATION OF PULSE ELECTRIC FIELD EFFECT ON WOUND CLOSURE RATE OF HT-29 CELL LINE</p>	<p>Pulse electric field exposures on human cancer cells have shown an alternative towards drug-free wound treatments. The previous investigations have shown interesting findings on the usage of this electrical means generated via high voltage pulse generator system. Hence, the aim of this study is to examine the pulse electric field effect on the wound closure properties of HT29 cells line. The HT29 cells were treated with an electric field of 600V/cm for 500us. The result of cell wound closure process showed that pulse electric field has an</p>

LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		influence on the wound closure speed of HT29 cells line. The non-electroporated (NEP) cells repaired the wound in 240 minutes, at an average closure speed of 0.24_m/min. Whereas the electroporated cells were found to repaired the wound completely in 105 minutes, at an average closure speed of 0.50_m/min, indicating a 108% increment in average closure speed over NEP. Thus, this study can further be investigated for the use of the pulse electric field in facilitating wound healing process.
393	Abdirahman Shire, UTHM; Abdul Talib Bin Bon, UTHM THE ROLE OF PERSONAL RESOURCES IN THE JOB DEMANDS-RESOURCES MODEL: A REVIEW OF THE IMPLICATIONS FOR JOB PERFORMANCE ENHANCEMENT	ABSTRACT In this paper, the role of personal resources (self-efficacy, organizational-based self-esteem, and optimism) in the Job Demands-Resources (JD-R) model was discussed. The present study reviews the assumptions and development of the JD-R model, including personal resources and presents an overview of important findings obtained with the model. The present study proposes that high job demands lead to strain and health impairment (the health impairment process), while high job resources and personal resources lead to increased motivation, higher productivity (the motivational process) and enhanced job performance. Specifically, it has been suggested that an individual's personal resources play a significant role in determining employee motivation, work-related attitudes and behaviors in the JD-R model. For example, personal resources are related to job satisfaction and job performance, as well as, other important organization-related attitudes and behaviors. Although these findings largely support the model's assumptions, there are still several important unresolved issues regarding the JD-R and personal resources, including the model's epistemological status, the definition of and distinction between demands? and ?resources,? the incorporation of personal resources, the distinction between the health impairment and the motivational processes, the issue of reciprocal causation, and the model's applicability beyond the individual level. The paper concludes with explanations for these effects and directions for a future research. Key words: Job Demands-Resources, personal resources, health impairment process, motivational process & job performance.
276	Suhail Abdullah	In this paper, the nonlinear effect of Stimulated Raman Scattering (SRS) been studied on next generation network WDM-PON which can deliver huge bandwidth to customer premises.



LIST OF ACCEPTED ABSTRACTS

ID	Author / Title	Abstract
		The simulation been done using OptiSystem software, the results has been shown for multiple input powers, it is observed that the power penalty becomes higher at higher input power, higher number of channels and higher bit rates used for transmission.