PROGRAM BOOK

7th ICEBIT 2023

7TH INTERNATIONAL CONFERENCE ON EDUCATION, BUSINESS, ISLAMIC AND TECHNOLOGY 2023

&

2nd WESTEC 2023

2ND WORLD ENGINEERING, SCIENCE AND TECHNOLOGY CONFERENCE 2023

14-15 October 2023

Organized By:

GAE
GLOBAL ACADEMIC EXCELLENCE

Golden Sands Resort
PENANG
By Shangri-La

TABLE OF CONTENTS

WELCOME NOTE

Bismillahirrahmanirahim.

Assalammualaikum warahmatullahi wabarakatuh and Salam Sejahtera.

On behalf of GAE, it is my great pleasure to welcome all the delegates to **7th International Conference on Education, Business, Islamic and Technology 2023 (7th ICEBIT 2023) and 2nd World Engineering, Science and Technology Conference 2023 (2nd WESTEC)**. The conferences will be held at Shangri-La Golden Sands, Penang, Batu Feringgi Beach, 11100 Penang, Malaysia on 14th – 15th October 2023. The conferences provide a platform for scholars, intellectuals, professionals, academicians and researchers from various fields and disciplines to share and generate forum on the current local and global issues, address solutions to the problems and to provide opportunity for participants to exchange and share knowledge and information, establish business or research relationships and find global partners for future collaboration.

The conferences will be held through Face-to-Face and Online Video Presentation (OVP). You may refer on tentative programme, timetable schedule and OVP and non-presenter information below to know about the conference. Whereas, for the publication process you will be informed through email after the conferences. All delegates also will receive the e-certificates through email within two (2) weeks after conferences.

Here, I also to give profound thanks go to the whole committee of conferences for the impressive work they have done. Nothing would be possible without the excellent work of a very hard-working committee. Additionally, I would like to warmly thank all the authors who, with their presentations, generously contributed to the lively exchange of knowledge and information that is so vital to the endurance of these conferences.

Thank you and my best wishes to all.

MUHAMAD FIRDAUS ABDULL RAZAB
CEO
Global Academic Excellence (M) Sdn Bhd

TENTATIVE PROGRAM

14th October 2023 (Saturday)	
Time	**Activities / Program**
8.30 am – 9.00 am	Registration
9.00 am – 9.15 am	Welcoming Address by Global Academic Excellence (M) Sdn Bhd
9.15 am – 9.30 am	Photography Session
9.30 am – 10.30 am	Session 1
10.30 am – 10.45 am	Tea Break
10.45 am – 12.45 pm	Session 2
12.45 pm – 2.00 pm	Break / Lunch
2.00 pm – 4.00 pm	Session 3
4.00 pm – 4.30 pm	Closing Speech and Award Recognition
4.30 pm – 5.00 pm	Tea Break / End Session

15th October 2023 (Sunday)	
Time	**Activities / Program**
9.00 am – 5.00 pm	Online Video Presentation (YouTube/Facebook)

Notes:

- Each presentation will be 20 minutes, 15 minutes for presentation and 5 minutes for Q & A sessions
- Face-to-face presenter may use PowerPoint slide to present their paper.
- Face-to-face presentation will be schedule on 14th October 2023.
- Online Video Presentation will be schedule on 15th October 2023. The link of each video and slide presentation will be available on 15th October 2023 in conference website.
- Participant can view Online Video Presentation Slot through our YouTube Channel _ Global Academic Excellence GAE (https://www.youtube.com/channel/UCY0GQiQ5qY0kDT1VooKLrLw) and Facebook (https://www.facebook.com/GAExcellence/)
- Participant can respond if there is any comment in the video. Presenter should answer any comment/question from audience.

PRESENTATION TIME TABLE

SESSION 1 (9.30 am – 10.30 am)
MODERATOR: ASSOC. PROF. DR. RAZANA JUHAIDA JOHARI

NAME	TITLE
Marina Abdul Majid	Prioritizing Health Concerns and Environmental Protection Equally in Addressing Space Debris from Outer Space through the Principle of Integration of Sustainable Development
Siti Sarah Baharuddin	School Ecosystem Efficiency of Orang School Ecosystem Efficiency of Orang Asli School in Malaysia using Data Envelopment Analysis
Nur Hanim Hassan	Analisis Keperluan Pembangunan Kerangka Literasi Membaca Teks Bahasa Arab Berbantukan Teknologi Augmentasi Realiti (AR) untuk Murid Berkeperluan Pendidikan Khas (MBK) di Malaysia Dalam Kalangan Ibubapa.
Dzakiyy Hadiyan Achyar	Socially Responsible Investing (SRI) From Islamic Bank Protects the Economy from Crisis and Negative Market Sentiment

SESSION 2 (10.45 am – 12.45 pm)
MODERATOR: ASSOC. PROF. DR. LIM SIONG KANG

NAME	TITLE
Razana Juhaida Johari	The Influences of Students Learning Support on Students Online Learning Satisfaction in Malaysia
Badariah Ruslan	Pembangunan Gamifikasi "Jawlah Tik
Lee Chin Yee	A Systematic Literature Review on Population Density and Mobility
Munzaimah Masril	Assessing Medan locals' understanding of the Election Supervisory Agency's participatory monitoring program
Wira Zanoramy Zakaria	Detection of Cryptographic Ransomware at Pre-Encyption Stage using API Calls
Yahaya Abd Rahim	Comparison of Countries That Implement Blockchain Technology for National Logistics and Education
Rudy Ansar	Empowering Financial Futures: Examining Malaysia's Millennials' Financial Literacy Post Covid-19

SESSION 3 (2.00 pm – 4.00 pm)
MODERATOR: DR. YAHAYA ABD RAHIM

NAME	TITLE
Maya Genisa	Characterization of Different Bone Quality Based on CT Scan Data Using Imaging Technique
Lim Siong Kang	Enhancing Strength and Impact Resistance of Latex Rubberized Concrete through Steel Fiber Incorporation
Nurul Neesa Idris	Experimental Studies of No Vegetation and Fringing Vegetation Distributions in Surface Flow Constructed Wetlands
Hazrul Abdul Hamid	Multivariate Time Series Analysis to Improve the Accuracy of PM10 Concentrations Prediction
Sarerusaenye Ismail	The Comparative Analysis of Facial Recognition Using Combination of SVM, LBPH And CNN Hybrid Approaches
Vijaylakshmi	Critical Thinking for College Students
Hafiz Muhammad Osama Aziz	Development of Artificial Intelligence based Aircraft periodic inspection Gantt Chart and Stagger

ONLINE VIDEO PRESENTATION INFORMATION

==

Presenter: *Sofian Rizal*
Paper Title: Application Artificial Network from Database Predicted Normalized Temperature and Humidity in Room
Video Link: https://youtu.be/r002Exqnua0
Slide Link:

==

Presenter: *Aldrich June Caraecle*
Paper Title: Assessing Marketing Strategies of Halal Certified Food Manufacturers in Mindanao, Philippines: A Quantitative Analysis
Video Link: https://youtu.be/BS0uG2Q7xCU
Slide Link:

==

Presenter: *Chung Han Lim*
Paper Title: Tacheometric Building Survey: A Comparison Between Photogrammetry and Total Station Survey
Video Link: https://youtu.be/VINVvRPQeQY
Slide Link:
https://drive.google.com/file/d/1GHkSD4kZsP3fuGy2_MWRL6_F4Ip2XY5L/view?usp=sharing

==

Presenter: *Aldrich June Caraecle*
Paper Title: The Influence of Halal Logo on The Purchasing Behavior Of Muslim Filipinos: A Structural Equation Modelling
Video Link: https://youtu.be/grcbyNu9wak
Slide Link:

==

Presenter: *Fadzidah Mohd Idris*
Paper Title: Materials Properties of Lightweight Spiral Hybrid CNT/EPOXY Composites Enhanced Reflection Loss
Video Link: https://youtu.be/BjkrpKnxpgA
Slide Link:

==

Presenter: *Sonayah Guimba*
Paper Title: Determinants of Social Responsibility Performance Among Marawi City Business Enterprises: Basis for The Creation of An Islamic CSR Framework
Video Link: https://youtu.be/6d0WzmF2ZZM
Slide Link:
https://docs.google.com/presentation/d/19PFj1ji3H_RP1QadyF_gRHo1uTQOQlOx/edit?usp=sharing&ouid=115942919083382869857&rtpof=true&sd=true

==

Presenter: *Muhamad Khairul Anuar Zulkepli*
Paper Title: Isu Penguasaan Kosa Kata Bahasa Arab Pelajar UiTM Dan Aplikasi Mufradati
Video Link: https://youtu.be/xygu_UUbCy4

Slide Link:
==

Presenter: *Siti Zaidah Turmin*
Paper Title: Carbon Tax: A Study on The Extent of Knowledge and The Influencing Factors in Malaysia.
Video Link: https://youtu.be/jDu5nUYOqR8
Slide Link:
https://drive.google.com/file/d/180pdAl9UyFGBjahW5r2uc7kX2BKOFsC8/view?usp=sharing
==

Presenter: *Rafidah Abas*
Paper Title: Determinant of Islamic Tourism Stakeholders Incomprehension About Islamic Muamalat
Video Link: https://youtu.be/p0C5jL5Ad4A
Slide Link:
https://drive.google.com/file/d/1HW4x9zLf95ch_SKqvqUdK_pZFOEQzAGe/view?usp=sharing
==

Presenter: *Siti Zakiah Syed Mustafa*
Paper Title: Identifying Crucial Factors on Customer Loyalty Towards SME Brands Among Selangor Residents
Video Link:
Slide Link:
==

Presenter: *Tan Choon Keong*
Paper Title: Analyzing Flipped Classroom Themes Trends in Computer Science Education (2007–2023) Using CiteSpace
Video Link: https://youtu.be/MZ6CtAR7P8M
Slide Link:
==

Presenter: *Dwi Tatak Subagiyo*
Paper Title: Legal Measures to Prevent and Protect Unreasonable Use of Knowledge of Traditional Medicine from Indonesia
Video Link:
Slide Link:
==

Presenter: *Farous Izwan Abdul Aziz*
Paper Title: Improving English Persuasive Writing in Malaysia: A Recommendation
Video Link:
Slide Link:
==

Presenter: *Anand Ryan Thurairajah*
Paper Title: Characterization and Factors Effecting Fibre Properties of Meltblown Polypropylene Fibre and Micro Polypropylene Fibre
Video Link:
Slide Link:
==

Presenter: *Zafirah Ab. Muin*
Paper Title: Assessment of Residential Aged Care Facilities Availability
Video Link:
Slide Link:

===

Presenter: *Zakiah Syamra' Suhaimi*
Paper Title: Supply Chain Digital Readiness Assessment of UK Steel Manufacturing Industry
Video Link: **https://youtu.be/kklkggT9Ows**
Slide Link:

===

Presenter: *Dianta Hasri Natalius Barus*
Paper Title: Electric Vehicle Market Penetration in Southeast Asia From Google Trend Analysis
Video Link: **https://youtu.be/PDbM1nAgXJE**
Slide Link:

===

Presenter: *Sonayah D. Guimba*
Paper Title: Intergenerational Challenges and How They Manifest in The Public Workforce: A Basis
for Designing Effective Performance Management Strategies
Video Link:
Slide Link:

===

Presenter: *Anand Ryan Thurairajah*
Paper Title: Engineering Properties of Cement-Paste with Polypropylene and Carbon Fibres
Video Link: **https://youtu.be/1R5fpmtqevM**
Slide Link: https://drive.google.com/file/d/17ozs-
vh3nIa1qq9HfZGA4bTRLuwGaSfN/view?usp=sharing

===

Presenter: *Dwi Tatak Subagiyo*
Paper Title: Legal Position of CV. Source Makmur Surabaya For Managers Who Died
Video Link:
Slide Link:

===

Presenter: *Sharifah Darmia Sharif Adam*
Paper Title: Cabaran Pendidikan Di Sabah Sebelum Tahun 1963
Video Link: **https://youtu.be/RVbtAugrxFU**
Slide Link:

===

Presenter: *Saifulazry Mokhtar*
Paper Title: Dakwah Bi al-Nafs: Pemangkin Penularan Virus Mazmumah dalam Kepimpinan
Kendiri
Video Link:
Slide Link:

===

Presenter: *Saifulazry Mokhtar*
Paper Title: Hak Persaudaraan dan Persahabatan Menurut Perspektif Islam: Satu Tinjauan Awal
Video Link:
Slide Link:
===

Presenter: *Ismail Maidin*
Paper Title: Peranan Motivasi Dakwah dalam Bidang Keusahawanan: Satu Tinjauan Awal
Video Link:
Slide Link:
===

Presenter: *Mohd Nasrun Mohd Talib*
Paper Title: Pendekatan Rahmah Dalam Kepimpinan Politik Tun Sakaran Dandai
Video Link:
Slide Link:
===

Presenter: *Maya Genisa*
Paper Title: Characterization of Different Bone Quality Based on CT Scan Data Using Imaging Technique
Video Link: https://youtu.be/WcdNp0nJneE
Slide Link:
===

Presenter: *Adele Potgieter*
Paper Title: Heritage Branding as Rebranding Strategy in Higher Education: A Nelson Mandela University Case Study
Video Link:
Slide Link:
===

NON-PRESENTER INFORMATION

===
Participant: *Seri Chempaka Mohd. Yusof*
Paper Title: Determination of The Microbiological Quality and Acceptance of Selected Irradiated Fermented Food During Storage
===
Participant: *Yusuf Gunawan*
Paper Title: Analysis of Student Needs in Tax Law Learning Design
===
Participant: *Pan Bo*
Paper Title: Study on The Influencing Factors of Effective Group Cooperation Mode in Chinese Universities Classroom
===
Participant: *Ahmad Nurfaidhi Rizalman*
Paper Title: Effects of Mixing Sequence on Mechanical Properties of Carbon Fibers Reinforced Cement Paste
===
Participant: *Ahmad Nurfaidhi Rizalman*
Paper Title: Comparison Between Seismic and Non-Seismic Designs of Multi-Storey Buildings
===
Participant: *Hanafe Abdulmalik*
Paper Title: Islamic Human Resource Management Strategic Planning, Practices, Commitment, And Organizational Performance of Bangsamoro Region.
===
Participant: *Zul-Atfi Ismail*
Paper Title: Integrating BIM and Precast Concrete Maintenance Management Practice: Key Findings
===
Participant: *Mohd Fahmi Adnan*
Paper Title: Contextual Knowledge Framework in CAD Education from the Perspectives of Practicing Engineers
===
Participant: *Siti Rahmah Borham*
Paper Title: E-Muhadathah Kit Instrument (i-KEM): Developing Technology Enhanced Language Learning Application
===
Participant: *Le Thuy Ngoc An*
Paper Title: Advanced Computational Tools for Patent Analysis: A Comprehensive Literature Review
===
Participant: *Siti Zakiah Syed Mustafa*
Paper Title: Factors Affecting Purchase Intention on Sustainable Fashion Products Among Adult Fashion Consumers in Cities of Petaling District, Selangor
===
Participant: *Mardhiah farhana Omar*
Paper Title: Application of BIM Technology in Facility Management to Complement the Building Maintenance Performance and Operational Information: A Systematic Literature Review

==

Participant: *Leetwane Anna Ntlhare*
Paper Title: Learners Reading Enhancing Teachers Abilities to Teach Foundation Phase

==

Participant: *Leetwane Anna Ntlhare*
Paper Title: Foundation Phase teachers point of views towards using Social-Constructivism learning theory in Professional Development

==

Participant: *Mustiah Mustiah*
Paper Title: The Impact of Mobile-Assisted Hybrid Dynamic Assessment on Arabic Language Learners' Reading Comprehension Performance

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7th ICEBIT 2023

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Liaison Officer	*Muhamad Firdaus Abdull Razab - Global Academic Excellence, Malaysia*

LIST OF ABSTRACTS

COMPARISON OF COUNTRIES THAT IMPLEMENT BLOCKCHAIN TECHNOLOGY FOR NATIONAL LOGISTICS AND EDUCATION

Yahaya Abd Rahim[1]
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Abstract: Blockchain can be defined as distributed ledger technology that can securely and permanently record transactions between parties. The blockchain uses a shared database among many parties, the blockchain can eliminate the need for intermediaries who need to act as trusted third parties to validate, record and reconcile transactions. Some countries that have used Blockchain technology in various fields can be used as references to compare the implementation of blockchain technology in various fields with several indicators reviewed from several journal literature. In this study reviewed some countries that applied blockchain technology in several fields. Determination of several factors in comparing from the literature review. The results of this study are that the state obtained information in implementing technology which became a reference and motivation to be applied in Indonesia in accordance with the characteristics of the Indonesian state. Based on the comparison of this research, the advantages and disadvantages of the application of blockchain technology, especially in the field of logistics, are implemented in Malaysia.

Keywords: Comparison, Blockchain Technology, National Logistics

APPLICATION ARTIFICIAL NETWORK FROM DATABASE PREDICTED NORMALIZED TEMPERATURE AND HUMIDITY IN ROOM

Sofian Rizal[1]

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Abstract: The Artificial neural network is a mathematical model that tries to simulate the structure and functionalities of biological neural networks. A neural network is a machine that is designed to model the way in which the brain performs a particular task or function of interest. Basic building block of every artificial neural network is neuron. Such a model has three simple

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2nd World Engineering, Science and Technology Conference 2023
14th – 15th October 2023,
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2nd WESTEC 2023 | 7th ICEBIT 2023

sets of multiplication, summation and activation. The purpose of this network is to examine neural network and their emerging applications in the field of engineering focusing on control. The network is implemented by using electronic components and is simulated in software on a digital computer. In this work examined the application of neural network for predicted normalized temperature and humidity in room and the learning process. A neural network derives its computing through its massively parallel distributed structure and its ability to learn and generalize. Generalization refers to the neural network's production of reasonable outputs for inputs not encountered during training or learning. The function of which is to modify the synaptic weights of the network in an orderly fashion to attain a desired design objective. The needs for neural networks, training of neural networks and important algorithms have been discussed. Artificial Neuron is sum function that sums all weighted inputs and bias. At the exit of artificial neuron the sum of previously weighted inputs and bias is passing trough activation function that is also called transfer function. It concluded by identifying limitations, recent advances and promising future research directions

Keywords: *Network, Temperature, Humidity, Learning, Weight*

EXPERIMENTAL STUDIES OF NO VEGETATION AND FRINGING VEGETATION DISTRIBUTIONS IN SURFACE FLOW CONSTRUCTED WETLANDS

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Abstract: *Constructed wetlands (CWs) are established in recent decades to treat sewage efficiently. CWs also have good performance in removing pollutants which are economical in construction, operation, and maintenance. However, there have been reports of CWs failing to remove pollutants at it design capacity. Thus, the performance and effectiveness of CWs must be thoroughly investigated, particularly when attempting to comprehend the CWs long-term viability. Tracer study was conducted to examine the hydraulic efficiency of two different vegetation configurations of CW namely no vegetation, and fringing vegetation. In this paper, full-scale surface flow constructed wetlands was used to evaluate hydraulic performance in terms of short-circuiting (S) and hydraulic efficiency (λ). The aim of this paper is to investigate the hydraulics performance in a full-scale constructed wetlands (CWs) under two different inflows and vegetation distributions experimentally. It is found out that, under 12-hrs residence time, fringing vegetations acquire better hydraulic efficiency, λ = 1.0 as compared to no vegetation λ = 0.83. This phenomenon occurred because fringing vegetation distribution is act as resistance and able to slow down the movement of water from exiting the wetland system. Furthermore, all four series of experimental modelling achieved low short-circuiting value S = 0.32 which indicates the system does not experiencing bypass. It can be understood as the NIS constructed wetland is properly designed with adequate length to width ratio (3:1) with opposite inlet – outlet position. A further suggestion of future studies is to incorporate full vegetation distribution with current outcomes from fringing vegetation and no vegetation distributions.*

THE INFLUENCES OF STUDENT'S LEARNING SUPPORT ON STUDENT'S ONLINE LEARNING SATISFACTION IN MALAYSIA

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Abstract: *Because of the COVID-19 epidemic, which prompted millions of students and faculty members to flee their university buildings and retire to their homes, online learning swiftly became the usual mode of education. There are some obstacles that stand in the way of this transformation, such as unlimited internet access, the availability of computers for online classrooms, students' attitudes towards online learning, the instructor's limited ability to deliver personalised training, and so on. Students will be the most impacted by the changes due to the changes in the teaching and learning process, which will affect their satisfaction with their online learning. Numerous studies have been conducted to address this issue, but relatively few have looked at how the environment impacts or promotes student learning elements. As a result, the current study is justified in investigating the impact of instructional, peer, and technical support on students' satisfaction with their online learning experiences at Selangor's public institutions. This study enlisted the participation of 357 undergraduate students. Data was collected via an online survey using Google Forms, and analysis was performed using SEM - Partial Least Square (PLS) software. While technological support was not shown to be relevant in influencing student learning satisfaction, the other two categories studied—instructional support and peer support—were. These findings can assist academics and institutions in strengthening their efforts to properly serve students while maintaining the continuity of online learning in teaching and learning. In the post-pandemic period, the government can also help design strategic policies to increase user happiness with online learning. Restrictions and suggestions are also taken into account. There is also a discussion of limitations and recommendations.*

Keywords: *Online learning satisfaction; Instructional support; Peer support; Technical support; Students*

CHARACTERIZATION OF DIFFERENT BONE QUALITY BASED ON CT SCAN DATA USING IMAGING TECHNIQUE

Maya Genisa[1*]

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Bazli Bin MD Yusoff[3*]
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Abstract: Indonesia like many other countries, now entering the demographic bonus era, and the population of productive manpower is larger than the unproductive one. However, it is also predicted that, the number of elderly people will become larger. Early preparation to anticipate the problems related to increasing the population of elderly needs to be started as early as possible. One of the most common health problems in the elderly is a decrease in bone quality and quantity which is indicated as osteoporosis or osteopenia. People with osteoporosis or osteopenia have a high risk of bone fracture. Hence, early detection and medical treatment are expected can anticipate the further problem. The purpose of this paper is to discuss the feasibility of utilizing imaging techniques for bone quality characterization based on CT-scan images. CT-scan images were collected from different patient conditions which consist of normal, and osteoporosis cases. CT-scan data are segmented to get bone part only. new images attributes are generated on the selected data sets to see the differences among the groups of normal and osteoporosis case. Two attributes: Roughness and Contrast attributes tends to increase from normal to osteoporosis, while the other two attributes are decreases. Quantitatively, Roughness attribute is the most sensitive one on differentiating normal and osteoporosis follows by Phase, Greyscale, and Contrast attributes. Two attributes (Roughness and Phase) have significance visual difference from original CT-scan images. However direct implementation of this attributes for clinical diagnoses still needs further testing and more experiments to get better calibration, especially in determining the attribute index value.

Keywords: CT-scan, Osteoporosis, Osteopenia, Bone Quality, Attribute, Imaging

ENHANCING STRENGTH AND IMPACT RESISTANCE OF LATEX RUBBERIZED CONCRETE THROUGH STEEL FIBER INCORPORATION

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Le Yi Eng[1]
Jee Hock Lim[1]
Ming Kun Yew[1]
Yee Ling Lee[1]
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Abstract: Rubberized concrete, which incorporates crumb rubber, offers improved impact resistance, toughness, and ductility compared to regular concrete. However, its strength is

typically lower due to weak interfacial transition zones (ITZ) between the crumb rubber and hardened cement paste. This study aims to investigate the potential of steel fiber and SBR Latex in compensating for the strength reduction caused by the inclusion of crumb rubber. Specifically, the research focuses on the effect of incorporating steel fiber into latex rubberized concrete (LRC) on compressive strength, flexural strength, splitting tensile strength, and impact resistance. To determine the optimal mix proportion, trial mixes of LRC and Latex-based rubberized concrete with 15 kg/m3 steel fiber (LRC-15% SF) were tested for their compressive strength, splitting tensile strength, flexural strength, and impact resistance. The selected mix proportion had achieved a minimum of 55 Mpa of 28-day characteristic strength. Experimental results indicated that the inclusion of steel fiber led to improved strength properties in LRC. The optimal LRC-15% SF mixture, with a water-to-cement (w/c) ratio of 0.28, outperformed the control mix (w/c ratio of 0.28) by 3.18%, 10.70%, and 17.94% in compressive, splitting tensile, and flexural strengths, respectively, at 56 days. Additionally, the LRC-15% SF exhibited higher impact resistance, showing a 46.27% and 14.71% increase in the 400 mm and 200 mm span length impact tests, respectively, at 56 days. By incorporating steel fiber into latex rubberized concrete, this research demonstrates the potential to enhance the strength properties and impact resistance of the material. These findings contribute to the development of more durable and resilient rubberized concrete formulations, highlighting their potential for various construction applications.

Keywords: Crumb rubber, Steel Fiber, SBR Latex, Strength, Impact Resistance

DETERMINANTS OF SOCIAL RESPONSIBILITY PERFORMANCE AMONG MARAWI CITY BUSINESS ENTERPRISES

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Sonayah D. Guimba[2*]

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Abstract: Along with the rising number of business enterprises, there is also a growing importance of social responsibility in business. However, there is a lack of visible CSR initiative being implemented among the local business enterprises despite the known importance of CSR to a company's reputation and impact to overall business success. This research sought to determine the various factors affecting the implementation of CSR. This particularly includes the business profile, the level of understanding about the importance of CSR in terms of western and Islamic concepts and the extent of the business enterprise involvement to environmental, ethical, legal and philanthropic initiatives. This study adopted quantitative-correlational research. Data was collected through a questionnaire from a total sample of 246 respondents whose business establishments were visibly operating in Marawi City. The data was analyzed using statistical tools such as Frequency distribution, Weighted Mean, Kruskall-Wallis Test, and Spearman's Correlation Test. Although there appears to be a lack of involvement in CSR at first glance, it is clear from the data that CSR activities are prevalent despite the fact that the majority of the firms operating in the city have a low net income. Consequently, Marawi business enterprises understanding on the importance of CSR in terms of western concept expressed an

7th International Conference on Education, Business, Islamic and Technology 2023
2nd World Engineering, Science and Technology Conference 2023
14th – 15th October 2023,
Shangri-La Golden Sands, Penang, Bate Feringgi Beach, 11100 Penang, Malaysia

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overall slightly agree or fair understanding. The same result also can be gleaned with the business enterprises understanding on the Islamic concept of CSR with an overall response of slightly agree or fair understanding. Further, the business enterprises were often involved with environmental, legal, ethical and philanthropic responsibilities.

Keywords: Social Responsibility, Business Enterprises, Islamic CSR Framework, Marawi City

ISU PENGUASAAN KOSA KATA BAHASA ARAB PELAJAR UiTM DAN APLIKASI *MUFRADATI*

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Abstract: Mastery of Arabic vocabulary is a key element to understanding the language. Vocabulary weakness is associated with the weakness of vocabulary. In fact, the issue of Arabic vocabulary mastery is a traditional issue raised by previous researchers, and it continues until now. This is also seen to happen in institutions of higher learning, especially at UiTM Kedah in particular. In an effort to deal with this problem, it requires a step to unravel the issue of student vocabulary and find a solution to help overcome the problem. This study aims to describe the issue of Arabic vocabulary mastery among UiTM Kedah students and create a special platform for vocabulary learning. This study is based on a quantitative approach, using questionnaires as the main instrument of data collection. A total of 144 students were respondents, and the collected data was discussed descriptively using SPSS software (Statistical Package for Social Sciences) version 28. The results show a moderate to high interpretation of the issue of Arabic vocabulary mastery, which leads to the existence of an Arabic vocabulary platform called Mufradati. The implication of the study is support for learning aids that can be practiced among students.

Keywords: Arabic Vocabulary, Solution, Platform, Mufradati

CARBON TAX: A STUDY ON THE EXTENT OF KNOWLEDGE AND THE INFLUENCING FACTORS IN MALAYSIA

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Abstract: *Carbon tax is a tax levied on the carbon content of fuels that comes from transport and energy. It is part of carbon pricing or carbon emissions trading. The term carbon tax is often relates to carbon dioxide tax, which can be applied to any form of greenhouse gas mixture produced by any sector of the economy. The imposition of carbon tax is believed to be one of the most efficient tools to overcome the environmental problems. The study investigates factors influencing the extent of carbon tax knowledge among individuals in Malaysia. Three factors investigated are level of education, peer influence and carbon tax awareness. Data collected through questionnaire distributed to 200 sample of individuals around Selangor is analysed by using statistical analysis of multiple regression. Result of the study indicates that factor of carbon tax awareness is significant in influencing the extent of carbon tax knowledge of Malaysian individuals, while the other two factors are found to be insignificant. The study provides significant contribution towards knowledge on taxation issues in the context of Malaysia as an emerging economic country in the world.*

Keywords: *Carbon Tax, Education, Peer Influence, Awareness, Malaysia*

PRIORITISING HEALTH CONCERNS AND ENVIRONMENTAL PROTECTION EQUALLY IN ADDRESSING SPACE DEBRIS FROM OUTER SPACE THROUGH THE PRINCIPLE OF INTEGRATION OF SUSTAINABLE DEVELOPMENT

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Abstract: *The controversy surrounding space debris which have re-entered the Earth's atmosphere and caused environmental contamination has been acknowledged by various subsidiary guidelines to the Guidelines for the Long-term Sustainability of Outer Space Activities. Regretfully, most of the subsidiary guidelines barely refer to health concerns explicitly. While certain forms of space debris can cause air, water or ground pollution, such as fuel from the fuel tanks of rockets and nuclear-powered reactors powering satellites, the effect on human health has been downplayed. If sustainable development is to be achieved, the inclusion of health concerns from space debris must be emphasised as non-space-faring states are victims of fallen debris that could harm their population. Therefore, the main objective of this research is to assert that environmental contamination and health concerns arising from space debris left on earth from the outcome of outer space activities must be given equal emphasis in international health law. This is a qualitative study that utilises a textual analysis to interpret provisions and relevant paragraphs of selected outer space agreements and soft law documents to identify wording – such as environmental contamination and pollution,*

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14th – 15th October 2023,
Shangri-La Golden Sands, Penang, Bate Feringgi Beach, 11100 Penang, Malaysia

2nd WESTEC 2023 | 7th ICEBIT 2023

health and public health – in order to judge if these documents have adequately addressed the two components of sustainable development. Secondary resources were also consulted. The results show that outer space law has made some strides by embracing sustainable development with an emphasis on environmental contamination and protection from space debris through non-binding soft law documents which complement outer space treaties; however, it has neglected health concerns. It is therefore necessary for the World Health Organization (WHO) to develop international health law concerning outer space to address toxic fuels besides the hazards posed by nuclear reactors powering some satellites.

Keywords: space debris, International Sustainable Development Law (ISDL), international health law.

DETERMINANT OF ISLAMIC TOURISM STAKEHOLDERS' INCOMPREHENSION ABOUT ISLAMIC MUAMALAT

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Abstract: Worldwide acceptance and demand for Islam as the world's fastest growing religion provides abundant opportunities for halal industry components including Islamic tourism. Nevertheless, despite the positive opportunities, poor understanding about Islamic tourism and the muamalat concept has adversely affected Islamic tourism growth. Thus, the researchers are interested to uncover the determinant of Islamic tourism stakeholders' incomprehension about Islamic muamalat and the effect toward Islamic tourism growth. Contents were analyzed, data was assembled and classified into meaningful information. It was found that both internal and external factors contributed significantly in the misunderstanding about Islamic Muamalat among Islamic tourism stakeholders. Of the variables, demographic profile turned out to be the most dominant factor affecting the incomprehension of Islamic tourism operators about Islamic Muamalat. Lack understanding about Syariah even among Muslim stakeholders has resulted in relatively poor comprehension about Islamic Muamalat. Consequently, the substandard conception has adversely affected the Islamic tourism sector's overall credibility and effectiveness. Thus, clarify the potential business owners' and operators' reticence to embark into the business.

Keywords: Islamic Tourism, Stakeholders, Muamalat, Incomprehension

ANALYSIS OF STUDENT NEEDS IN TAX LAW LEARNING DESIGN

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Abstract: *Education is essentially an activity carried out by students that results in changes in their personalities. This principle implies that what must be prioritized is the learning activities of students rather than something given to students where the educational process leads to attitude formation, intelligence or intellectual development, and development of children's skills as needed. This study aims to analyze the needs of students for the development of learning media in the Tax Law Course at STIH IBLAM, Jakarta where a gap is obtained between the existing conditions that are not in accordance with the conditions that should or expected conditions. Research methods using google form online for questionnaires with qualitative data types. The formulation of the problems of this study are: 1. How is the role of analyzing the needs of students in the learning design of Tax Law Subject? 2. How are the steps of analyzing the needs of students in the learning design of Tax Law Subject? The results of this study are: The learning media used are ordinary while the course material is too much, difficult to understand, requires accuracy and more time in working on taxation questions so that the exam results are not optimal. By analyzing the needs can measure the difference between the conditions that should be expected with the existing conditions and by using the method*

Keywords: *Needs Analysis, Learning Problems, Tax*

ANALYZING FLIPPED CLASSROOM THEMES TRENDS IN COMPUTER SCIENCE EDUCATION (2007–2023) USING CITESPACE

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Abstract: *Flipped classroom (FC) overcomes many drawbacks of traditional teaching and has a wide range of applications in the field of (computer science) CS education. Systematically analyzing the research themes and keywords of the flipped classroom in CS teaching is of great significance in guiding the improvement of the teaching quality of the flipped classroom. In this study, we used CiteSpace to statistically analyze the data of 229 articles published in the core library of Web of Science from 2007 to July 18, 2023, and visualize the collaborative network, author co-citation clustering, and keyword co-occurrence. The results of the study showed that (1) the statistical analysis and collaborative network indicated that the application of flipped classroom in CS education has entered a trough period; (2) based on the*

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Shangri-La Golden Sands, Penang, Bate Feringgi Beach, 11100 Penang, Malaysia

2nd WESTEC 2023 | 7th ICEBIT 2023

collaborative network and clustering analysis of authors, three research themes of CS flipped implementation, online learning, and skill development were identified in this study. (3) Based on the co-occurrence of keywords, this study identified three research hotspots: integration strategies, flipping effectiveness, and challenges faced

Keywords: Flipped Classroom, CiteSpace, Visualization, Web of Science, Computer Science

SCHOOL ECOSYSTEM EFFICIENCY OF ORANG ASLI SCHOOL IN MALAYSIA USING DATA ENVELOPMENT ANALYSIS

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Abstract: Education ecosystem is essential for every country as part of human capital resources. School efficiency plays in important role in ensuring every resources given to the school used optimally. In Malaysia, achievement of aborigines (Orang Asli) in education still low compared to general population. There are various reasons for their poor performance in education. However, there is lack of research in determining their school efficiency in using their resources. Hence, this study intends to measure efficiency level of Orang Asli schools in Malaysia. Data envelopment analysis was used to measure efficiency of 41 out of 98 Orang Asli schools across Malaysia. Results of this analysis showed that 13 schools are efficient with score of 1.0. This results indicate low efficiency performance of Orang Asli schools. Government and related agency have to pay more attention to less efficient school to ensure that they do not left behind in education

Keywords: Education ecosystem; Orang Asli; Aborigines; Data Envelopment Analysis

ISLAMIC HUMAN RESOURCE MANAGEMENT STRATEGIC PLANNING, PRACTICES, COMMITMENT, AND ORGANIZATIONAL PERFORMANCE OF BANGSAMORO REGION

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Abstract: The study's primary goal was to develop a causal model that best links the employees' views on Islamic HRM principles, practices, and work engagement, as well as to determine

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14th – 15th October 2023,
Shangri-La Golden Sands, Penang, Bate Feringgi Beach, 11100 Penang, Malaysia

2nd WESTEC 2023 | **7th ICEBIT 2023**

which variables influenced organizational performance. Researcher-made survey instruments were used to implement descriptive-correlational and causal-comparative study designs. It was done in the Bangsamoro region and included 537 regular employees from different ministries using stratified random sampling. To interpret and analyze the data, the mean and standard deviation, Pearson Product-Moment Correlation, multiple regressions, and the structural modeling equation were employed. The study results show that the respondents in BARMM have a high level of agreement in their assessment of Islamic human resource management practices. The findings emphasize the considerable impact of Islamic principles and values on the implementing of human resource management (HRM) strategies. Moreover, the research reveals a positive perception among participants in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) regarding the efficacy of strategic planning and Islamic HRM practices concerning HRM policies, workplace dynamics and work environment, and leadership qualities. However, there are areas for improvement, particularly regarding HRM policies, which need further clarification and consistency. A strong positive relationship between work engagement, Islamic human resource management practices, and strategic planning with organizational performance in BARMM was also noted. This study suggests that employee engagement is a key driver of organizational productivity, and aligning HRM policies with Islamic values and principles can enhance organizational productivity. The study also highlights the potential social benefits of implementing Islamic human resource practices in organizations and society.

Keywords: Structural Model on Organizational Performance, Strategic Planning, Islamic Principles, Work Engagement, Human Resource Management, Bangsamoro Autonomous Region in Muslim Mindanao

ADVANCED COMPUTATIONAL TOOLS FOR PATENT ANALYSIS: A COMPREHENSIVE REVIEW

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Abstract: The integration of Artificial Intelligence (AI)-Powered Technologies is becoming increasingly pervasive across manufacturing and operational domains, offering a valuable avenue for informed decision-making and the exploration of cutting-edge technologies. Notably, AI incorporates a variety of advanced tools, such as machine learning, deep learning, natural language processing, data visualization, clustering etc., that play a prominent role in patent analysis. These versatile techniques empower researchers and industries to engage in diverse patent-related tasks, ranging from predicting future technological trends and strategic technology planning to patent quality assessment, infringement detection, and the identification of emerging technology areas and patent gaps. In this comprehensive review, our objective is to present the current advancements in the utilization of advanced computational tools for patent analysis. We achieve this by analyzing 61 articles sourced from the Web of Science database. Additionally, we offer an overview of various patent analysis

7th International Conference on Education, Business, Islamic and Technology 2023
2nd World Engineering, Science and Technology Conference 2023
14th – 15th October 2023,
Shangri-La Golden Sands, Penang, Bate Feringgi Beach, 11100 Penang, Malaysia

2nd WESTEC 2023 | 7th ICEBIT 2023

techniques through a detailed taxonomy. We anticipate that this review will prove invaluable to both scholars and practitioners seeking the latest developments in the realm of patent analytics, fostering innovation and informed decision-making in the process.

Keywords: Patent Analysis, Decision-Making, Artificial Intelligence, Machine Learning

LEGAL MEASURES TO PREVENT AND PROTECT UNREASONABLE USE OF KNOWLEDGE OF TRADITIONAL MEDICINE FROM INDONESIA

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Abstract: Legal Remedies to Prevent and Prosecute Unreasonable Utilization of Knowledge of Traditional Medicines from Indonesia aims to analyze and to find out legal remedies that can be taken to prevent and act against improper uses of knowledge of traditional medicines from Indonesia. The research method used in this study uses normative research methods which are library research. The approach used in this study is a statutory approach by examining laws and regulations related to the material under study. Based on the results of the research it can be concluded: the idea of an alternative legal remedy to provide protection for traditional knowledge in the field of biodiversity is to make laws that are sui generis and based on the customs of the local community. Protection is intended to improve the welfare of the community, not only for humanitarian reasons as viewed by indigenous peoples, but also to improve the economic welfare of every member of the indigenous peoples through access granted to foreign companies or other outside parties with benefit sharing that is fair and accepted by indigenous peoples as owners of knowledge.

Keywords: Legal Remedies, Unnatural, Medicine, Traditional

SOCIALLY RESPONSIBLE INVESTING (SRI) FROM ISLAMIC BANK PROTECTS THE ECONOMY FROM CRISIS AND NEGATIVE MARKET SENTIMENT

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Abstract: The study aims to examine the relationship between Bank Aceh's social-economic contribution and Aceh's economic growth by explicitly considering the role of financial market sentiment. Data extracted from Bank Aceh's financial reports and market sentiment results were analyzed by Python 3.10 big data software and PyCharm IDE during the 2018 – 2021 Covid-19 pandemic. Economic growth is measured by the percentage of Aceh's economic

growth. Bank Aceh's contribution is measured by the total distributed endowment fund under the corporate social responsibility scheme. The financial market sentiment measured by financial market sentiment polarity ranges from -1 (absolute negative sentiment) to +1 (absolute positive sentiment). The findings: (1) Bank Aceh's corporate social responsibility under the Islamic comprehensive economic law significantly determines Aceh's economic growth, thus, is able to shield the economy from a severe crisis during the Covid-19 pandemic; (2) financial market sentiment is showing an insignificant impact on the relationship between Bank Aceh's contribution and Aceh's economy meaning that market sentiments are not able to influence Bank Aceh and the Aceh's economy itself

Keywords: Market Sentiment; Big Data; Python; Pycharm

SUPPLY CHAIN DIGITAL READINESS ASSESSMENT OF THE STEEL MANUFACTURING INDUSTRY

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***Abstract:** In the 19th century Britain led the industrial revolution through its steel fabrication. Although the UK was the largest steel producer at the time, its role in the global market has declined in recent years. A combination of intense international competition and high domestic costs (i.e., overhead costs, energy prices, and business rates) have made it difficult for the UK to be globally cost-competitive. The UK steel industry needs to transition from a traditional to an integrated supply chain (SC) to create more sustainable steel manufacturing. Digital technologies can act as a key enabler to increase steel manufacturing productivity and sustainability. Therefore, this study aims to examine the role of SC digital maturity in improving the productivity and sustainability of UK steelmakers. Findings highlight that the results are very generic if analysed from the top-level view. Specifically, it shows that steelmakers are far behind other manufacturers. The findings also show no validity in their future ambition as all steelmakers aimed to achieve Level 4 in the next five years, which is more ambitious than other steelmakers. However, examining the individual steelmaker results can provide greater insights towards its digital transformation journey.*

Keywords: Supply Chain, Digital Maturity Tool, UK Steel Manufacturing

DEVELOPMENT OF ARTIFICIAL INTELLIGENCE BASED AIRCRAFT PERIODIC INSPECTION GANTT CHART AND STAGGER

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Abstract: Data digitalization is imperative for every organization, as manual record keeping necessitates additional time and human resources. Our web-based application facilitates the regular updating of maintenance and flying records for aircraft. This database enables rule-based artificial intelligence (AI)driven flying analysis to optimize aircraft utilization efficiently. The aircraft database is tailored to specific requirements using various programming languages such as PHP, JavaScript, and HTML. This paper presents aircraft periodic inspection and flying analysis techniques, including Gantt chart and stagger chart, within the context of project management practices. This software product achieves resource optimization in rule-based networking and controlling through user-friendly project management in a centralized system. It efficiently handles large data capacity while minimizing complexity, enhancing overall efficiency and productivity of an aircraft-based organization.

Keywords: Project Management Techniques, Gantt Chart, Aircraft Periodic Inspection, Stagger, Aircraft Customized Database, Rule based Artificial Intelligence

ENGINEERING PROPERTIES OF CEMENT-PASTE WITH POLYPROPYLENE AND CARBON FIBRES

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Abstract: Concrete has strong compressive strength, but it is brittle and vulnerable to tension-induced failure. To address the issue, this research investigated the effect of the addition of fibre on the engineering properties of cement paste. There were two fibres examined in this study, which include polypropylene fibre (PF) and carbon fibre (CF). The engineering properties that were studied include flowability, hardened density, compressive strength, and flexural strength at 7, 28, and 56 days. The results indicated that the addition of fibre had only subtle effects on workability, attributed to a judiciously chosen low-volume fraction of fibres. Notably, a consistent increase in hardened density, compressive strength, and flexural strength was observed over the curing period, driven by ongoing hydration processes. Therefore, it can be concluded that the incorporation of PF and CF significantly improved cement paste engineering properties, outperforming the control specimen in hardened density, compressive strength, and flexural strength.

Keywords: Cement-Paste; Fibre Reinforced; Carbon Fibre; Polypropylene Fibre; Engineering Properties

THE IMPACT OF MOBILE-ASSISTED HYBRID DYNAMIC ASSESSMENT ON ARABIC LANGUAGE LEANERS' READING COMPREHENSION PERFORMANCE

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Abstract: *This study mainly aimed to explore the quantitative and qualitative impact of mobileassisted hybrid dynamic assessment (MAHDA) on Islamic religious Education (IRE) learners' Arabic reading comprehension (ARC). This recent study employed a sequential explanatory mixed-methods design and involved twenty participants assigned into experimental and control groups. All groups received pre-and post-tests to compare the intervention. The experimental group was mediated through the MAHDA procedure for two months and the control group received conventional instruction. The interview with the participants was also conducted to assess the learners' perception of the mediation strategies of MAHDA. The pre- and post-tests were analyzed by t-test and the transcribed interviews were thematically analyzed. Quantitatively, the results showed a meaningful distinction between the two groups. The qualitative findings revealed that the participants felt satisfied with the MAHDA in improving the learners' ARC abilities and social interaction.*

Keywords: *Dynamic Assessment; Arabic Reading; Comprehension; Mobile-Assisted Language Learning; Cognitive Development.*

ANALISIS KEPERLUAN PEMBANGUNAN KERANGKA LITERASI MEMBACA TEKS BAHASA ARAB BERBANTUKAN TEKNOLOGI AUGMENTASI REALITI (AR) UNTUK MURID BERKEPERLUAN PENDIDIKAN KHAS (MBK) DI MALAYSIA DALAM KALANGAN IBUBAPA

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14th – 15th October 2023,
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Abstrak: Kajian ini bertujuan untuk mendapatkan maklum balas dan maklumat daripada ibu bapa yang mempunyai anak berkeperluan khas bagi tujuan pembangunan kerangka literasi membaca teks bahasa Arab berbantukan teknologi augmentasi realiti (AR). Analisis keperluan ini penting bagi menyediakan maklumat yang jelas untuk pembangunan kerangka literasi agar kerangka yang dibangunkan bertepatan dengan keperluan murid dan dapat membantu menyelesaikan sebarang kebarangkalian permasalahan yang wujud. Populasi bagi kajian ini merangkumi ibu bapa yang mempunyai anak yang bersekolah di Program Pendidikan Khas (PPK), Program Pendidikan Khas Integrasi (PPKI), dan Program Inklusif pada peringkat umur 7 hingga 12 tahun. MBK dalam kajian ini hanya tertumpu kepada kategori Murid yang mengalami masalah pembelajaran (slow learner). Kajian ini menggunakan teknik persampelan rawak kluster yang melibatkan lima zon di Malaysia. Protokol temu bual separa struktur digunakan bagi tujuan pengumpulan data. Data kualitatif yang diperolehi akan dianilis secara tematik menggunakan perisian ATLAS.ti Terdapat empat tema berkaitan data iaitu (1) keperluan dari aspek prasarana (2) kepakaran dan latihan guru (3) bahan bantu mengajar dan (4) kesesuaian teknologi augmentasi. Analisis data menunjukkan kerangka literasi membaca teks Arab berbantukan teknologi augmentasi diperlukan dengan empat tema yang telah dinyatakan. Selain itu, terdapat cadangan lain dari ibubapa yang boleh digunakan untuk merekabentuk dan membangunankan kerangka literasi membaca ini. Pembangunan kerangka literasi membaca teks bahasa Arab berbantukan teknologi (AR) untuk MBK diharapkan dapat menyediakan suasana yang kondisif untuk persekitaran pembelajaran MBK di Malaysia dan seterusnya dapat bersama-sama membantu pihak berautoriti untuk menyelesaikan masalah keciciran murid-murid berkeperluan pendidikan khas dalam arus pendidikan perdana di Malaysia.

Kata Kunci: Analisis Keperluan, Pembangunan Kerangka, Literasi Membaca, Murid Berkeperluan Pendidikan Khas, Augmentasi Realiti

ASSESSING MARKETING STRATEGIES OF HALAL CERTIFIED FOOD MANUFACTURERS IN MINDANAO, PHILIPPINES: A QUANTITATIVE ANALYSIS

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Abstract: This study assessed the marketing strategies of halal certified food manufacturers in the selected provinces of Mindanao. Specifically, it evaluated the level of implementation and effectiveness of the existing marketing strategies of the manufacturers. The study is a descriptive-correlational research. It conducted a survey to 70 marketing personnel of the different manufacturers and 398 Muslim consumers who are residing in Marawi City. The data gathered were treated and analyzed using weighted mean and independent sample T-test. The assessment of marketing personnel revealed that the marketing strategies of halal certified

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food manufacturers are halal compliant in terms of product, price, place, promotion, people and process as these elements are evaluated to be at least implemented and effective. However, based on the evaluation of the Muslim consumers, it came out that the marketing strategies of halal certified food manufacturers are only halal compliant on product, promotion and people as these elements are assessed to be implemented, but have failed to meet the halal standards with regard to price, place, process and physical evidence as these elements are found to be less implemented and less effective. Given the findings of the study, it is recommended that the manufacturers should work on the improvements of the strategies that are evaluated to be less compliant and should sustain the implementation of their strategies assessed to be effective as to compliance on halal so they will be able to achieve sustainable growth.

Keywords: Marketing strategies, halal food, quantitative, Mindanao

THE INFLUENCE OF HALAL LOGO ON THE PURCHASING BEHAVIOR OF MUSLIM FILIPINOS: A STRUCTURAL EQUATION MODELLING

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Abstract: The study investigated the influence of halal logo on the purchasing behavior of Muslim Filipinos. Moreover, it assessed the knowledge, attitude and the perceived issues of consumers toward halal logo, thereby gain a deeper understanding of the critical factors that shape consumer behavior. A quantitative research design was employed, utilizing a structured questionnaire administered to a sample of 400 Muslim Filipino consumers. Cronbach's alpha was tested to assess the reliability of the instrument. The instrument was also validated by research experts to ensure its functionality. Furthermore, the validity of the instrument was measured by convergent validity test. Descriptive statistics and PLS-Structural Equation modelling were used to analyze the data gathered. The findings of the study revealed the important role of Halal logo in influencing consumers' purchasing behavior. The respondents expressed a strong commitment to checking for the Halal logo, double-checking its presence, and exclusively buying products with the Halal logo. They are willing to pay a premium for products with the Halal certification, highlighting the importance of the logo as a guiding factor in their decision-making process. Based on the PLS-SEM, the attitude and the issues perceived by the Muslim consumers on products with halal logo have an influence on their purchasing behavior. With these findings, it is recommended that consumer protection measures be intensified to safeguard the rights and interests of Muslim Filipino consumers. Regulatory agencies, manufacturers, and retailers should ensure accurate and reliable halal certification processes and enforce strict adherence to Halal standards. Importantly, efforts should be made to raise awareness among Muslim consumers about the significance of the halal logo and the assurance it provides in terms of product quality and compliance with religious requirements.

Keywords: Halal, Halal Logo, Purchasing Behavior, Muslim Filipinos, Structural Equation Modelling

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DETERMINATION OF THE MICROBIOLOGICAL QUALITY AND ACCEPTANCE OF SELECTED IRRADIATED FERMENTED FOOD DURING STORAGE

Seri Chempaka Mohd. Yusof
Azhar Mohamad
Mohd. Hafiz Abdul Nasir
Cosmos George
Ahsanulkhaliqin Abdul Wahab

Abstract: *For developing countries, safe shelf-stable food without refrigeration would offer advantages. Gamma ray, an ionizing radiation is known to be a safe technology for treating food products in extending their shelf-life. Studies were carried out to overcome arisen problems of the safe shelf-stable food and to evaluate the suitability of irradiation in preserving local fermented mushrooms (Pekasam Cendawan) and local fermented cabbages. Generally, local fermented mushroom can be kept in room temperature and under chilled condition only for one and three days respectively. Similarly, local fermented cabbages require chilled condition for storage to avoid the packages bloated upon displayed and storage. Fresh packed fermented products were obtained from local producers and irradiated at doses of 2.0 kGy, 5.0 kGy and 10 kGy, using 60Co gamma irradiation source at MINTec-Sinagama. The irradiated and non-irradiated samples were displayed at room temperature storage periods for 2 weeks, 1 month, 3 months and 6 months. Microbiological analysis was carried out to determine status of bacteria (Total Plate Count) and fungi counts. The results were expressed as colony forming units per gram (cfu/g). Colour changes of the products were recorded using Colorimeter (Minolta) for lightness (L), redness (a) and yellowness (b) values. Acceptability of the irradiated fermented products were determined through sensory evaluation by using 30 members (male and female) of untrained panellists. The fungal and microbial counts in both samples irradiated at 5 and 10 kGy were more lowered than samples irradiated at 2 kGy. After storage at 3 months, the fungal and microbial counts were increased in the both control samples of fermented mushrooms and cabbages but maintained low in both irradiated samples. The control samples of fermented mushrooms (not irradiated) were spoiled after displayed one day in room temperature and after chilled for 3 months. Both irradiated samples at 2 kGy and 5 kGy were more accepted in sensory evaluation especially the texture and taste and no significant changes.*

Keywords: *Gamma, Irradiation, Mushroom, Microbial, Storage*

TACHEOMETRIC BUILDING SURVEY: A COMPARISON BETWEEN PHOTOGRAMMETRY AND TOTAL STATION SURVEY

Chung Han Lim
Hong Yi Lim
Asmawan Mohd Sarman

Abstract: Building surveying plays a vital role in the construction as well as facilities management of a building structure to establish its as-built layout and geometry. Common methods adopted in building surveying are tacheometry and theodolite surveying although LIDAR (light detection and ranging) and photogrammetry are also becoming more prevalent with the advancement of technology. Traditionally adopted mostly for topographic mapping, photogrammetric surveying is becoming increasingly commonplace for building structures too as it has shown great potential to reduce workload and cost. However, the downside of photogrammetry has always been the issue of accuracy. This research was commissioned to investigate the improvement in this accuracy that could be obtained by utilizing modern technology such as unmanned aerial vehicles (UAV) and image processing software utilizing artificial intelligence (AI). These results were then benchmarked against a total station survey model. An existing two-storey library building was chosen for this purpose. The comparison of accuracy using selected features on the building showed that planar model (top down plan view) had better matches and was sufficiently accurate under 250 mm to produce a RICS band H survey. In contrast, the elevation model (vertical accuracy) was not as accurate and was only good enough for RICS band J.

Keywords: Photogrammetry, Total Station Survey, Building Tacheometry, Building Information Modelling

MATERIALS' PROPERTIES OF LIGHTWEIGHT SPIRAL HYBRID CNT/EPOXY COMPOSITES ENHANCED REFLECTION LOSS

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Idza Riati Ibrahim
Farah Nabilah Shafie
Hatika Kaco
Mohd Shamsul Ezzad Shafie

Abstract: Recently, various electronic devices have been developed to meet the requirements of higher frequency technology applications. This widely used application without realizing has created more electromagnetic interference pollution that is harmful on human health and other equipment. Therefore, more research interest focuses on fabricating the electromagnetic (EM) wave absorbing materials that can absorb the EM wave interference. In this regard, this research highlights the use of Iron Oxide and Cobalt Oxide as catalyst to synthesize hybrid CNT by using Chemical Vapor Deposition (CVD) method. The spiral hybrid CNT/epoxy composites were prepared at thickness of 1mm, 2mm and 3mm. The phase formation, microstructural, particle size and structural analysis of the hybrid CNT were analyzed by using X-ray diffractometer (XRD), Scanning Electron Microscope (SEM), Transmission Electron Microscope (TEM) and RAMAN spectrometer respectively. The microwave characterization of the hybrid CNT/epoxy composite samples was analyzed by using Vector Network Analyzer (VNA) at GHz frequency range. The phase analysis confirmed the existence of Carbon and iron carbide in the sample. The microstructural of CNT formation are mostly in spiral and straight like structure. On the other hand, the structural analysis shows the sample are more towards defective structure with higher and broader D-band peak. This could enhance the EM wave

absorption performance. The minimum reflection loss (RL) peak was ~-23dB (t=3mm) obtained for all hybrid CNT composite samples. The differences of minimum reflection loss peak at different weight percentages are most likely shown by the shift of frequency range. Thus, this lightweight hybrid CNT/epoxy composites results in better EM wave performance at different thin thickness used for different applications.

Keywords: Hybrid, EM Absorber, Composites, Reflection Loss, Lightweight, Spiral

DETECTION OF CRYPTOGRAPHIC RANSOMWARE AT PRE-ENCRYPTION STAGE USING API CALLS

Wira Z. A. Zakaria

Abstract: *The exponential rise in crypto-ransomware attacks in recent times demands novel, proactive strategies for malware detection and mitigation. Our study endeavoured to scrutinize the pre-encryption phase of such attacks, specifically analyzing the intricate web of Windows API calls frequently employed by ransomware to orchestrate their attacks before initiating encryption. The study stands on a comprehensive categorization of these API calls, which was achieved by mapping them into pre-encryption categories representing different stages of a ransomware attack, namely infiltration, evasion, reconnaissance, staging, key generation, server communication, preparation for encryption, and pre-encryption notification. This guided the creation of predictive models to identify potential ransomware activity at an early stage, effectively acting as an early warning system to pre-empt potential attacks. To validate the robustness of our theoretical framework, we developed classifiers using prominent machine learning algorithms: Random Forest, Support Vector Machine (SVM), Decision Tree, K-Nearest Neighbors (KNN), and Naive Bayes. The classifiers were rigorously tested to evaluate their efficacy in distinguishing normal and malicious API call sequences. The experimental results unveiled a high degree of accuracy in detecting ransomware pre-encryption activities, with the Random Forest and SVM classifiers emerging as leaders, both attaining an accuracy rate of 88.86%. The Random Forest model displayed superior performance, boasting a precision of 78.82%, recall of 95.24%, an F1-score of 86.25%, and an impressive ROC AUC of 97.59%. The SVM classifier followed closely, with comparable precision, recall, and F1-score values but lacked ROC AUC data. Despite exhibiting lower accuracy and ROC AUC values, the KNN model demonstrated the highest precision at 88.57%. This study pivoting on a detailed mapping and analysis of pre-encryption API calls, has forged a critical path towards advanced ransomware detection systems. By enabling early detection of ransomware activity, our models hold the promise to significantly curtail the devastating impacts of ransomware attacks, fostering a more secure digital ecosystem.*

Keywords: *Ransomware, Early Detection, Pre-Encryption, Pre-Encryption Boundary, Crypto-Ransomware, Cryptographic Ransomware*

IDENTIFYING CRUCIAL FACTORS ON CUSTOMER LOYALTY TOWARDS SME BRANDS AMONG SELANGOR RESIDENTS

Siti Zakiah Syed Mustafa

Abstract: *Customer loyalty is very important for the growth of any business or SME in Malaysia. Customer loyalty helps in planning and keeps all the functions of the business running in the long run. Such businesses and developers understand a factor that influences the customer behavior of people of different ages and life backgrounds and affects their purchasing power. The objective of this study is to examine the critical factors that influence customer loyalty towards SME brands. Specifically, this study aims to examine the impact of the 4Ps on customer loyalty. Methodologically, primary data was collected from a sample of 342 citizens in Selangor using survey instruments. The collected data was analyzed using SPSS. The results showed that only product and price had a positive, statistically significant impact on customer loyalty. Location and promotion, on the other hand, had a negative and non-significant impact on customer loyalty in the Selangor region. The findings of this study could help in understanding the critical factors for customer loyalty and lead to improved customer loyalty strategies, while SMEs can develop customer loyalty programs, personalized marketing initiatives, and improved customer service based on the findings of the study.*

Keywords: *Customer Loyalty, SME*

PEMBANGUNAN GAMIFIKASI "JAWLAH TIK

Badariah Binti Ruslan
Saipolbarin Bin Ramli

Abstrak: *Kajian ini bertujuan untuk membangunkan aplikasi bahasa Arab "Jawlah Tiktok" untuk guru dan murid di sekolah kebangsaan. Data menunjukkan murid berhadapan dengan masalah untuk menguasai huruf mutamasilah bahasa Arab dengan baik. Pembangunan aplikasi ini merupakan bahan bantu mengajar alternatif yang menerapkan konsep didik hibur dalam aktiviti PdPc dengan disokong oleh elemen teknologi dan multimedia. Kajian ini menggunakan pendekatan penyelidikan reka bentuk dan pembangunan yang melibatkan populasi kajian murid sekolah rendah seramai 40 orang. Metode kajian berbentuk instruksional dengan mengadaptasi Model Instruksi ADDIE. Instrumen soal selidik telah digunakan pada fasa analisis yang melibatkan 100 orang guru. Instrumen soal selidik dan sorotan literatur pula digunakan pada fasa pembangunan dan rekabentuk. Fasa kebolehgunaan pula melibatkan pengesahan dari pakar bidang dan pemain industri. Data menunjukkan aplikasi "Jawlah Tiktok" yang dibangunkan ini dapat membantu memudahkan murid menguasai huruf "mutamasilah" dalam bahasa Arab di samping menjadikan suasana PdPc lebih interaktif dan aktif.*

Kata Kunci: *Pembangunan-Gamifikasi-Bahasa Arab*

A SYSTEMATIC LITERATURE REVIEW ON POPULATION DENSITY AND MOBILITY

Lee Chin Yee

Abstract: Urbanization relies on population growth and mobility in urban areas. Population density is measured by the number of people in a certain area, while mobility refers to the movement from one location to another. This paper, reports a comprehensive systematic literature review (SLR) guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement on the subject area related to population density and mobility. This review covers various published literature, spanning from 2012 to 2023. The purpose is to examine in detail the hot topic and the research gap on population density and mobility. This review found that urban is a common topic discussed with population density and mobility as urban is a big portfolio that involves urban planning, transportation, and real estate. Population density and mobility will actively be discussed when there is an epidemic happening.

ASSESSING MEDAN LOCALS' UNDERSTANDING OF THE ELECTION SUPERVISORY AGENCY'S PARTICIPATORY MONITORING PROGRAM

Munzaimah Masril
Faisal Andri Mahrawa
Yovita Sabarina Sitepu;
Fatma Wardy Lubis

Abstract: This research aims to determine how well the residents of Medan City are informed about the community participatory monitoring program initiated by the Election Supervisory Agency (BAWASLU). This study utilized a quantitative descriptive method by distributing a closed-ended questionnaire. The population here is the people of Medan City, with a minimum age requirement of 17 years. A sample of 200 people was selected using a multi-stage random technique. A communication audit approach was used to produce research findings, which can be broken down into two categories: first, what is the level of awareness of Medan City residents regarding the participatory monitoring program; and second, the views of Medan City residents regarding the efficiency of the program. It is envisaged that the findings of this research will serve as evaluation material for BAWASLU in the process of preparing to supervise the implementation of the election in 2024, which will shortly be carried out. It is anticipated that this research will also be able to show aspects that influence public comprehension. Some of these factors include educational background, accessibility to information, and prior involvement in monitoring activities.

THE COMPARATIVE ANALYSIS OF FACIAL RECOGNITION USING COMBINATION OF SVM, LBPH AND CNN HYBRID APPROACHES

Sarerusaenye Ismail
Nor Adnan Yahya

Abstract: *The objective of this research is to produce the results in term of facial matching success accuracy rate and the performances in combination of facial recognition models between three algorithms; SVM, LPBH and CNN. Existing implementation mostly proved the single algorithm towards certain degree of key specification features, however this work manages multiple series of model implementation using an OpenCv with total number of 42 sampling of staff face in Custom Media Sdn Bhd from 341 total of dataset training which utilizing the faces, 128 vectors extraction, trained, detect, and recognize the real-time images and video footages. A few APIs in Python has been used purposedly for three main key features; (1) AI Vision, (2) anti-spoof and (3) AI expression. The testing activities involved to determine the precision and accuracy rate of matching images as appeared in traceability testing as resulted the overall hybrid algorithms implementation that can be found at the end of this research paper.*

Keywords: *Face Detection, Facial Recognition, Deep Learning, Convolutional Neural Network, Local Binary Patterns Histogram, Support Vector Machine*

MULTIVARIATE TIME SERIES ANALYSIS TO IMPROVE THE ACCURACY OF PM10 CONCENTRATIONS PREDICTION

Norazrin Ramli
Hazrul Abdul Hamid
Ahmad Shukri Yahaya

Abstract: *Air pollutant forecasting is one of the critical approaches used in the development planning process of a region to manage the hazards of air pollution while ensuring a safe level of pollutant concentration in the region. It is also critical to provide early notice to those who have respiratory problems. Most of air pollution forecasting models that have been developed are univariate models. Realising that additional factors may influence air pollutant readings; multivariate models are becoming more popular since they can provide better forecasts. This study focuses on the cause and effect, followed by the development of a multivariate forecasting model using time series analysis to increase the accuracy of PM10 prediction. The data concerning the monthly average PM10 concentrations in Pasir Gudang, Kota Bharu and Kangar between 2004 and 2020 were utilized to select the most suitable multivariate time series model for forecasting purposes. The study's findings indicate a relationship of cause and effect between PM10 and several meteorological parameters with different levels of significance. Based on the multivariate time series analysis, VAR (1) is an appropriate multivariate model for PM10 prediction in Pasir Gudang and Kota Bharu while for Kangar, VAR (2) is the most appropriate model.*

Keywords: Relationship, Granger Causality, PM10, Meteorological Parameter

STUDY ON THE INFLUENCING FACTORS OF EFFECTIVE GROUP COOPERATION MODE IN CHINESE UNIVERSITIES CLASSROOM

Pan Bo
Fatmawati Latada

Abstract: With the advancement of student-centered teaching theory in teaching practice, group cooperation has become one of the main methods of college education curriculum. However, how to ensure the effective development of the group cooperation mode is one of the key points of current educational research. This paper aims to study the effectiveness of group cooperation in Chinese university classrooms via a random interview of normal university students. It will analyze the four key factors of group cooperation in terms of task allocation, subject matter expertise, team members' communication ability, and reward feedback. It will also propose clear and reasonable tasks, select the most suitable team leader, improve students' communication skills, and provide student reward feedback to further promote efficient classroom implementation.

Keywords: Group Cooperation, High Efficiency, Efficient Classroom

EFFECTS OF MIXING SEQUENCE ON MECHANICAL PROPERTIES OF CARBON FIBERS REINFORCED CEMENT PASTE

Ahmad Nurfaidhi Rizalman
Eliezer Nevall Anthony
S.M. Iqbal S. Zainal
Muhd Fauzy Sulaiman
Rosalam Sarbatly

Abstract: Fibers are recognized for controlling fracture widths and enhancing concrete ductility. However, one of the problems with fibers is its dispersion in cementitious composites, which has large influence on the homogeneity of mixture, consequently affected the mechanical properties of the composites. This research investigated the effect of mixing sequence on the dispersion and mechanical properties of carbon fiber in cement paste. Two mixing sequences were studied which include the addition of fiber before cement, and the addition of fiber after cement. The tests include flow table test, hardened density, compressive strength, flexural strength and scanning electron microscopy. It is expected that the addition of fiber after cement will be resulted better fiber dispersion in the mixture and mechanical properties.

Keywords: Mixing Sequence, Carbon Fiber, Cement Paste, Compressive Strength, Flexural Strength

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COMPARISON BETWEEN SEISMIC AND NON-SEISMIC DESIGNS OF MULTI-STOREY BUILDINGS

Ahmad Nurfaidhi Rizalman
Ak Muhammad Saufi Ak Ali Putra
Noor Sheena Herayani Harith
Muhd Fauzy Sulaiman
Nelly Majain

Abstract: Following to the 2015 Ranau earthquake, structural integrity of existing buildings in Sabah become a concern. Although Kota Kinabalu has low PGA with 0.04g, it has the highest number of populations which is around 550,000 people. Thus, this research compared the performance of multi-storey buildings of 5, 10, and 15 under seismic and non-seismic designs. In this study, SAP2000 was employed to perform structural and pushover analysis on the multi-storey buildings. Then, the taking-off process was conducted using Microsoft EXCEL software to determine the cost comparison between seismic and non-seismic designs. The results show no changes in the size of structural elements (beam and column), and the volume of concrete. However, there was an increase in the weight of steel reinforcement in the building under seismic design compared to building under non-seismic design. The total cost of material in buildings under seismic design was higher than buildings under non-seismic design. This is because there was an increase in the cost of steel reinforcement when buildings was designed under seismic.

Keywords: Seismic Design, Non-Seismic Design, Pushover Analysis, SAP2000, Multi-Storey Building

INTEGRATING BIM AND PRECAST CONCRETE MAINTENANCE MANAGEMENT PRACTICE: KEY FINDINGS

Farah Nabihah Romli

Abstract: The contemporary practice of conventional methods in the Precast Concrete (PC) building maintenance entails many issues due to poor service delivery and defect repetition. A key problem impeding the widespread adoption of emerging technologies is the lack of competent contractor supporting the effectiveness of implemented Information and Communication Technology (ICT) than conventional methods and the returns on investment. The shortcomings of conventional methods are assessed from the perspective of PC buildings. Data were collected through a case study of eight PC buildings from two type of design which were high-rise and complex building. The conventional methods had significantly little emphasis on defect diagnosis tools. It had also increased the inadequate strategic decision making to analyze information in improving the maintenance project outcomes for PC building.

Keywords: Maintenance Management, Conventional Method, Malaysian PC Building

CONTEXTUAL KNOWLEDGE FRAMEWORK IN CAD EDUCATION FROM THE PERSPECTIVES OF PRACTICING ENGINEERS

Mohd Fahmi Adnan
Mohd Fadzil Daud
Muhammad Sukri Saud
Mohd Hizwan Mohd Hisham

Abstract: The contemporary industry landscape requires engineering graduates to possess expertise in utilizing advanced Computer-Aided Design (CAD) tools. Nevertheless, prevailing practices reveal a deficiency in the contextual knowledge of Mechanical Engineering undergraduates and fresh graduate engineers when it comes to effectively employing 3D CAD modeling software for optimal product design development. Consequently, a study addressing this issue was undertaken, with a specific focus on the integration of contextual knowledge into 3D CAD modeling. This article aims to elucidate the fundamental elements of contextual knowledge regularly employed by practicing engineers in their daily design endeavors, specifically in 3D CAD modeling. The study used a transcendental phenomenology approach and purposefully selected four engineers from the engineering department of a shipbuilding company in Peninsular Malaysia as respondents. The analysis yielded three recurring themes central to the application of contextual knowledge in visualizing and presenting models through 3D CAD modeling: Realization, Design Intention, and Normalization. These elements are pivotal in assisting engineers in contextualizing their design work during the modeling and presentation stages of the new product development process.

Keywords: Contextual Knowledge, Computer Aided Design, Engineering Education

E-MUHÃDATHAT KIT: DEVELOPING TECHNOLOGY ENHANCED LANGUAGE LEARNING APPLICATION

Siti Rahmah Borham
Saipolbarin Ramli

Abstract: The effectiveness of educational applications is due to several combinations in its development, such as appropriate content, error-free, student engagement, ease of use, and increased learning motivation among students. Although many mobile educational applications are being developed in the market, such as Google Play Store and Apple Store, most applications do not meet the needs of users, have technical and language errors, and do not fulfil its purpose as educational applications. Thus, the aim of this study is to validate the E-Muhãdathat kit, an Android-based mobile application to improve students' willingness to communicate in Arabic in Malaysian universities. This study is a qualitative study in which open-ended questions from five experts in the field of teaching Arabic as a second language and instructional design and technology were analyzed. A panel of experts was purposely selected from various universities in Malaysia to determine the validity of the instructional design and technology, as well as the learning content of the prototype E-Muhãdathat kit. The results of the study show that the development of the E-Muhãdathat kit is in line with mobile learning theory and based on the embedded principles of multimedia learning. Therefore, this

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study encourages further research to develop innovative and student-centered teaching tools to further improve the communication competence of non-Arabic speakers in Malaysian higher education.

FACTORS AFFECTING PURCHASE INTENTION ON SUSTAINABLE FASHION PRODUCTS AMONG ADULT FASHION CONSUMERS IN CITIES OF PETALING DISTRICT, SELANGOR

Siti Zakiah Syed Mustafa
Aimi Anuar
How Ee Vone

Abstract: Sustainable fashion can be defined as ethical, eco-friendly, upcycled, and donated products. It is estimated that the fashion industry will account for 25% of global carbon emissions by 2050. It is undeniable that the fashion industry is the second largest industrial polluter after aviation and is responsible for up to 10% of global pollution. This research applies the Theory of Planned Behaviour (TPB) and Social Cognitive Theory (SCT). Environmental activism, perceived usefulness, ability to approach sustainable fashion, and green trust are factors that will influence consumers' purchase intention of sustainable fashion. The probability sampling method (cluster sampling) was used to collect data from 384 fashion consumers. This research aims to help companies in the fashion industry implement strategies that will promote consumers' purchase intention and behavior towards sustainable products, thus indirectly contributing to the sustainable development of society. The results show that there were positive relationships between the variables. The results of this study can provide insight into the factors that drive purchase intentions for sustainable fashion products. This could help consumers make more informed decisions and become more aware of the environmental and social impacts of their fashion purchases. Not only is the fashion industry a major contributor to global environmental and social challenges, but understanding consumers' purchase intentions for sustainable fashion products can also help achieve international sustainability goals such as the United Nations Sustainable Development Goals (SDGs).

APPLICATION OF BIM TECHNOLOGY IN FACILITY MANAGEMENT TO COMPLEMENT THE BUILDING MAINTENANCE PERFORMANCE AND OPERATIONAL INFORMATION: A SYSTEMATIC LITERATURE REVIEW

Mardhiah Farhana Omar

Abstract: Technologies from BIM can help improve the maintenance of construction defects and facilitate the monitoring of damage to existing structures and infrastructure. Construction defects are caused by design failure, material defects, workmanship defects, and aging of the building. Benefits of BIM for building maintenance include information management capabilities, design integration, and manageable project delivery that can support smooth facility management (FM) operations. FM is the complete management of all facilities that support the basic operation or use of a building. There is still limited understanding of how BIM can effectively support existing FM activities and how it impacts current design and construction processes in practice. The results show that even with early owner involvement through the development of information requirements, several challenges prevent owners from taking full advantage of BIM. These findings highlight the importance of proper building maintenance management for public buildings to maximize the value of the allocated budget and extend the life cycle of the building. This study was conducted to investigate approaches and techniques for identifying construction defects and future plans in this area. PRISMA (Pre-Recorded Systematic Review and Meta-Analysis Techniques), a published guide for conducting a systematic literature review (SLR), was used in this analysis. The main papers on this topic published between 2021 and November 2023 were examined. After reviewing twelve journal publications, research trends, methods, methodologies, gaps, and future goals related to BIM in monitoring and operational information needs in facilities management were identified. Key topic areas and resources used by BIM to improve project outcomes are illustrated through data summaries and article content. In addition, this publication has attempted to define future research perspectives to advance this research area. However, the design-build drawing process and its relationship to the BIM model of the entire management life cycle require further research or investigation. In summary, due to the widespread use of tools in the architecture, engineering, and construction industries to represent and manage information about systems and operations, BIM has grown in importance and contributes to the effectiveness of a building maintenance.

Keywords: Building Information Modeling (BIM), Facility Management (FM), Construction Defects, building Maintenance, SLR, Operational Information

IMPROVING ENGLISH PERSUASIVE WRITING IN MALAYSIA: A RECOMMENDATION

Farous Izwan Abdul Aziz
Syahrul Nizam Salam
Seriaznita Haji Mat Said

Abstract: Persuasive writing is a complex form of written discourse, requiring the writer to justify his stance with a strong argument. The problems students experience when attempting persuasive writing include poor organization, lacking support in their arguments and immature language. The purpose of this paper is to recommend a model to help Malaysian secondary school students improve their persuasive essay writing. A sample size of 150 students from three different secondary schools in the Hulu Klang area was chosen for this study. The students were instructed to submit an essay according to a set of writing prompts. Toulmin's Model was employed to analyse the essays by tagging the persuasive elements that were employed by the students in their essays. The findings revealed that the students'

proficiency level had a significant effect on the persuasive writing features that they employ in their essays and the numerous factors encompassing teachers' pedagogical approach, students' general knowledge and reading habits influenced the students' persuasive writing ability. Hence, the recommendation put forth by this paper is to integrate Toulmin's Model with classroom practice so that students will be able to understand the structure of persuasive arguments which will subsequently improve their persuasive writing strategies and nurture their critical thinking skills.

Keywords: Building Information Modeling (BIM), Facility Management (FM), Construction Defects, building Maintenance, SLR, Operational Information

CHARACTERIZATION AND FACTORS EFFECTING FIBRE PROPERTIES OF MELTBLOWN POLYPROPYLENE FIBRE AND MICRO POLYPROPYLENE FIBRE

Anand Ryan Thurairajah
Ahmad Nurfaidhi Rizalman
Rosalam Sarbatly

Abstract: Polypropylene (PP) is a thermoplastic polymer fibre made from the monomer propylene. It is utilised in many residential and industrial applications, including packaging, electrical work, appliances, and building. The performance of fibre in a certain application is determined by a variety of parameters, including chemical composition, physical qualities, the interaction of a fibre inside a composite matrix, and how that fibre or fibre composite operates under a given set of environmental conditions. To increase the usage of polypropylene fibre in composites, it is critical to have information on fibre qualities and the factors that influence fibre performance. This paper presents the chemical and physical properties of meltblown polypropylene fibre and micro polypropylene fibre. The factors that influence the fibre qualities were also investigated in this study.

Keywords: Polypropylene Fibre, Chemical Properties, Physical Properties

EMPOWERING FINANCIAL FUTURES: EXAMINING MALAYSIA'S MILLENNIALS' FINANCIAL LITERACY POST COVID-19

Rudy Ansar
Brahim Chekima
Suddin Lada
Ming Fook Lim
Mohd Noor Hidayat Jimainal
Mohamed Bouteraa
Hong Loong Ang

Abstract: The objectives of this paper to examine the level of financial literacy of millennials in Malaysia in the era of post covid-19. The issue of this study concerns the number of

millennials declared bankruptcy keep on increasing year-to-year. Therefore, this study focuses on millennials, who was born from 1980 to 1999 and included respondents from all the states of Malaysia. This study adapt international standard financing instruments advanced by Annamaria Lusardi (2013) to examine the level of financial literacy specifically amongst millennials in Malaysia. The descriptive statistics was used to analyze a total of 300 valid questionnaires. The findings display that millennials in Malaysia was severely lacking in financial literacy in the era of post covid-19. To improve the financial literacy of the younger generation, financial educators and policymakers can use the study's findings as information.

Keywords: Financial Literacy, Millennials, Post Covid-19, Bankruptcy.

ASSESSMENT OF RESIDENTIAL AGED CARE FACILITIES AVAILABILITY

Zafirah Ab. Muin
Siti Nuraisyah Idris
Aminah Mohsin
Maryanti Mohd Raid
Muhammad Najib Mohamed Razali

Abstract: Malaysia, being a developing country, will face an ageing population in the near future. Because of the country's expanding old population, there is a demand for the provision of particular amenities for the elderly in Malaysia's major cities. However, the question of whether Malaysia is equipped to deal with an ageing population emerges, given that facilities for the elderly are still insufficient, despite the fact that the country is expected to achieve the status of "old country" by 2030. The goal of this research is to identify the components of elderly housing facilities and to investigate the availability of amenities in elderly housing in accordance with the standards. A qualitative technique was used where semi-structured interviews conducted with five (5) respondents from the senior housing management in Johor Bahru. The interview data was evaluated using content analysis. According to the findings, senior housing facilities have eight (8) components: administrative and management buildings, common usage, health, recreation, security, religious, access, and support. All of the senior living communities chosen have the majority of the facilities mentioned in the standards. According to this survey, all elderly lodging provides the amenities that the elderly require, yet it is still insufficient given the expanding older population. As a result, this study highlights the importance of a community-wide geriatric welfare awareness programme. Furthermore, support and aid from many parties, particularly the government, are critical for assisting senior management in meeting the needs of the elderly. Indeed, appointed employees should be provided with skill development training to improve their abilities to provide the best possible service to the elderly. It is hoped that this study would enlighten all relevant parties about the importance of providing adequate and high-quality housing facilities for the elderly, so that Malaysia is ready for the country's ageing population in the future.

Keywords: Housing Development, Housing for Elderly, Social Facilities, Facilities Management.

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LEARNERS READING ENHANCING TEACHER'S ABILITIES TO TEACH FOUNDATION PHASE

Leetwane Anna Ntlhare
Sello Martin Blasé Mohlaloka
Mbobo Veliswa

Abstract: Teachers play a critical role in shaping the lives of young learners. Teaching reading is one of the most stressful aspects and requires more effort and time on the part the teachers. This is true in South African primary schools, teachers struggle to teach Foundation Phase learners on how to read. Despite the introduction of CAPS documents to introduce teachers to a variety of explicit strategies in the teaching of reading, the problem of teaching diverse learners how to master reading persists. Therefore, it is imperative to identify ways to support teachers' capacities for managing stress and abilities. The aim of this study is to provide teachers and practitioners with knowledge and practical guidelines to support teachers , thereby guiding them to meet the needs of individual learner in future. The study was qualitative in nature opting phenomenology within interpretive paradigm. Ten (N=20) Foundation Phase teachers from South African rural primary schools were purposively selected as participants. Data was collected by means of semi-structured focus group interviews. The theoretical frameworks used constructivist and social-constructivism learning theories. Thematic analysis of interviews was conducted through open coding. The result showed that teachers lack skills and strategies in teaching reading in the Foundation classroom. The study offers suggestions that the use of Ntataise and Matima Lenyora can be used as resources to enhancing teacher's abilities to teach learners' reading and provide them with the necessary reading resources to teach reading effectively. Through these resources, it is hoped to provide some practical guidance in how best to support teachers to overcome this problem. These findings therefore have implications that teachers must be trained in the usage of different, old, and new approaches to teach and assess learners experiencing reading difficulties.

Keywords: Enhancing, Teacher's Abilities, Foundation Phase Learners, Teaching Methods, Poor Reading Skills.

FOUNDATION PHASE TEACHERS' POINT OF VIEWS TOWARDS USING SOCIAL-CONSTRUCTIVISM LEARNING THEORY IN PROFESSIONAL DEVELOPMENT

Leetwane Anna Ntlhare
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Abstract: This study reports the findings from the interviews with the Foundation Phase teachers regarding the usefulness of Social-Constructivism learning theory as an approach to develop teachers to enable them to identify LWLB in the diverse classroom. The question that faces South African educational leaders is, what approaches to teachers learning could be implemented that could create changes in teacher professional development and ultimately improve learners' performance. It is a fact that with a move towards inclusive education, South African teachers are confronted with the challenge of not meeting the different needs of

individual learners and helping them to achieve their maximum potential. A vast literature addresses the importance of Constructivism learning theory as the necessary tool to succumb the situation. The purpose of this study is to examine teachers' perceptions on the use of Social-Constructivism learning theory during professional development. This research was underpinned by a qualitative approach utilising the Interpretive design. Four semi-structured focus group were conducted with twenty (n=20) Primary classroom teachers. Participants were purposively selected. The study was conducted at four selected primary schools and at district offices in the Motheo District, in South Africa. Data were thematically analysed. The interviews explored issues related to discussion of Social Constructivism learning theory as a paradigm for teaching and learning, traditional approach, its principles and benefits for teacher professional development, objectives of constructivism and several implications for teaching and Learning. Teachers' perceptions towards the use of Social-Constructivism were also discussed. The findings and implications of the study are discussed and reported.

Keywords: Constructivism Learning theory, Teaching and Learning, Professional Development, Foundation Phase teachers, Perceptions.

ELECTRIC VEHICLE MARKET PENETRATION IN SOUTHEAST ASIA FROM GOOGLE TREND ANALYSIS

Dianta Hasri Natalius Barus

Abstract: Electric vehicles are anticipated to be the automotive industry of the future. Particularly in ASEAN, which boasts two of the world's largest automotive assembly plants, namely Indonesia and Thailand. But can this business displace the fossil-fuel automobile industry, which has dominated the market for decades? The final analysis includes digital analytical investigation to ascertain consumer interest in ASEAN. This report identifies various strategies for the development of the electric car business, including technological innovation that reduces the cost and selling price of electric vehicles, and third, the participation of manufacturers in establishing this industry in Southeast Asia.

Keywords: Electric Vehicle, Market Penetration, Google Trends.

INTERGENERATIONAL CHALLENGES AND HOW THEY MANIFEST IN THE PUBLIC WORKFORCE: A BASIS FOR DESIGNING EFFECTIVE PERFORMANCE MANAGEMENT STRATEGIES

Sittie Maryam D. Manongcarang
Sonayah D. Guimba

Abstract: This study explored the intergenerational challenges that manifest in the public workforce and aimed to provide insights for designing effective performance management strategies. The research utilized a qualitative design, with twenty (20) employees from various departments of the Provincial Government of Lanao del Sur in Marawi City as research respondents. The sample included representatives from four generations: Baby Boomers,

Generation X, Millennials, and Generation Z. Data collection involved semi-structured face-to-face interviews using a purposive sampling technique. The analysis employed a collective case study approach and deductive coding. Ethical considerations were considered throughout the study. The main findings revealed that each generation exhibited distinct characteristics in terms of technology usage, social values, and core values. These differences gave rise to challenges related to work values, communication, motivation, job satisfaction, work-life balance, and learning. The results aligned with existing literature and theories such as generational cohort theory and stereotyping theory. Addressing these intergenerational challenges is crucial, particularly in the public workforce, given their significant impact in the modern workplace. By combining the study's findings with the principles of diversity management theory, this research offers valuable insights for developing strategies to mitigate intergenerational challenges. Recognizing and acknowledging these challenges is essential for fostering a harmonious work environment and promoting effective collaboration among employees from different generations. Organizations that proactively address these challenges can cultivate an inclusive and supportive workplace culture that values the unique contributions and strengths of each generation. Ultimately, this approach leads to enhanced productivity and overall employee well-being in the public workforce.

Keywords: Intergenerational Challenges, Public Workforce, Performance Management Strategies

CRITICAL THINKING FOR COLLEGE STUDENTS

Vijaylakshmi

Abstract: This research paper examines the importance of critical thinking skills for students and the methods to develop them. It highlights the impact of cognitive biases, lack of information and other factors on critical thinking, and the importance of developing analytical, evaluation and synthesis skills. The paper suggests various strategies such as teaching critical thinking skills directly, encouraging active learning, providing real-world examples, and promoting a culture of inquiry and debate, to improve critical thinking skills in students. Additionally, it also suggests that critical thinking should be integrated across the curriculum and that students should be given opportunities to practice and apply these skills.

Keywords: Critical Thinking, Evaluation, Cognition, Inference.

LEGAL POSITION OF CV. SOURCE MAKMUR SURABAYA FOR MANAGERS WHO DIED

Dwi Tatak Subagiyo

Abstract: Indonesia is a developing country, especially in the development sector, both physical and non-physical development. Physical development in the form of government buildings, roads, markets and so on, the government generally does not do the work itself, the project owner usually delegates the building work to construction service companies which involve contractors or building contractors, project consultants, all of whom play a large role in the development. . One of the developments in the non-physical sector is improving the

quality of human resources, with the hope that people will be better able to optimize their abilities in order to make development a success. certain form. In this case CV. Sumber Makmur Surabaya received a project from PDAM Kota Surabaya to repair ceramic floors. From the agreement that has been made, PDAM Kota Surabaya has made an agreement that the project must be completed by October 31 2011. However, the sole administrator from CV. Sumber Makmur passed away on October 22 2011, leaving behind the responsibility of the project which had to be completed on time.

Keywords: Building Contractor, Project Consultant, CV Manager.

HERITAGE BRANDING AS REBRANDING STRATEGY IN HIGHER EDUCATION: A NELSON MANDELA UNIVERSITY CASE STUDY

Adele Potgieter

Abstract: Heritage branding has its unique characteristics, and "the living history" that constitutes part of the brand provides organizations an opportunity to link nostalgia, positive emotions, feelings, and lessons from the past with the culture of the organization.
This study focuses on assessing the brand awareness, brand associations, and brand loyalty of internal stakeholders after Nelson Mandela Metropolitan University rebranded itself to Nelson Mandela University, incorporating heritage branding in the process.
A quantitative and descriptive research design was implemented, and data was obtained through a computer-aided self-administered web-based survey. A total of 567 respondents took part in the study. Although respondents were aware of the new brand after the rebranding process, they did not associate very well with it.
Respondents were less positive about brand associations than brand awareness. Although respondents did not understand the reason for the rebranding, they acknowledged that they trust the new brand and that it will be beneficial in the future to say they worked and studied at Nelson Mandela University. Respondents confirmed that they were loyal to the new brand and would recommend it to others.

Keywords: Heritage branding; Rebranding; HEI; Brand associations; Brand awareness.

CABARAN PENDIDIKAN DI SABAH SEBELUM TAHUN 1963

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Abstrak: Sabah merupakan salah sebuah negeri dalam Persekutuan Malaysia yang terkenal bukan sahaja kerana keindahan alam flora dan faunanya tetapi juga kerana keunikan masyarakatnya yang terdiri daripada puluhan etnik. Berdasarkan sejarah, pendidikan di Sabah telah pun wujud sejak zaman pentadbiran kesultanan Brunei dan kesultanan Sulu lagi. Semasa di bawah pemerintahan kesultanan Brunei, masyarakat yang menganut agama Islam

yang kebanyakannya tinggal di kawasan persisiran pantai Sabah telah ada pendidikan yang berasaskan pengajian Al-Quran. Dalam tempoh tersebut, pendidikan adalah dalam bentuk tidak formal tertumpu terhadap aktiviti pembacaan kitab agama yang dilakukan di surau, masjid dan pondok. Sementara itu bagi masyarakat yang bukan beragama Islam, pendidikan turut dalam bentuk tidak formal melalui tunjuk ajar daripada ibu bapa, upacara atau perayaan-perayaan tertentu. Ketika Sabah di bawah pentadbiran kuasa asing, pendidikan di negeri itu banyak dipengaruhi oleh polisi pentadbir seperti Syarikat Berpiagam Borneo Utara British (SBBUB) dan kolonial British. Namun secara umumnya didapati bahawa pendidikan masyarakat Sabah tidak begitu diambil berat oleh pihak pentadbir SBBU mahupun pihak colonial British. Oleh itu, perbincangan akan difokuskan terhadap cabaran yang dihadapi dalam bidang pendidikan di Sabah sebelum tahun 1963. Kajian kertas kerja ini menggunakan pendekatan analisis kualitatif dan menggunakan kaedah kajian arkib serta kajian perpustakaan iaitu dengan menganalisis pelbagai sumber primer dan sekunder seperti Fail Pejabat Tanah Jajahan, Penyata Tahunan, buku dan artikel untuk memperoleh sumber maklumat kajian. Kajian ini akan menghasilkan satu analisis yang dapat memberi kefahaman yang lebih jelas tentang latar belakang sejarah perkembangan pendidikan di Sabah. Pengenalpastian cabaran yang dihadapi akan membolehkan perancangan strategi yang dapat mengukuhkan lagi pendidikan di Sabah.
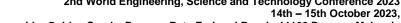
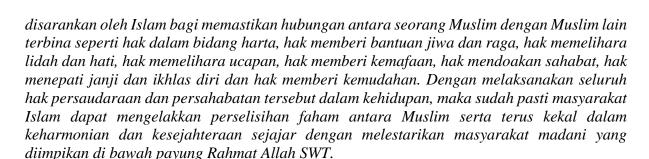**Kata Kunci:** *Building Contractor, Project Consultant, CV Manager.*

HAK PERSAUDARAAN DAN PERSAHABATAN MENURUT PERSPEKTIF ISLAM: SATU TINJAUAN AWAL

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Abstrak: *Persaudaraan (ukhuwwah) merupakan asas kepada kesatuan umat manusia dalam sesebuah entiti masyarakat. Citra dan hati budi seseorang itu bukan bergantung kepada bangsa, warna kulit, keturunan, pangkat atau hartanya, tetapi diukur berasaskan ketinggian budi pekerti yang terpuji. Dalam kerangka persaudaraan ini, interaksi sosial sesama manusia perlu mengikut adab-adab yang telah digariskan oleh Islam. Bagi mencerminkan persaudaraan menurut batas-batas syara' maka konsep persaudaraan ini perlu didasari dengan ikatan akidah yang luhur dan mantap. Pengabaian hak-hak ini akan menimbulkan perselisihan faham, persengketaan serta memutuskan hubungan silaturahim antara Muslim. Justeru, kajian ini dijalankan bertujuan untuk menganalisis konsep persaudaraan dan persahabatan dalam Islam serta melihat bagaimana semangat persaudaraan dan persahabatan ini dapat diterapkan dalam seharian umat Islam. Kajian ini menjurus kepada kajian analisis dokumen iaitu dengan melihat kepada tafsir al-Quran dan coretan hadis serta kajian-kajian lepas yang berkaitan dengan persaudaraan dan persahabatan. Hasil kajian mendapati terdapat pelbagai bentuk hak persaudaraan dan persahabatan yang telah*

disarankan oleh Islam bagi memastikan hubungan antara seorang Muslim dengan Muslim lain terbina seperti hak dalam bidang harta, hak memberi bantuan jiwa dan raga, hak memelihara lidah dan hati, hak memelihara ucapan, hak memberi kemafaan, hak mendoakan sahabat, hak menepati janji dan ikhlas diri dan hak memberi kemudahan. Dengan melaksanakan seluruh hak persaudaraan dan persahabatan tersebut dalam kehidupan, maka sudah pasti masyarakat Islam dapat mengelakkan perselisihan faham antara Muslim serta terus kekal dalam keharmonian dan kesejahteraan sejajar dengan melestarikan masyarakat madani yang diimpikan di bawah payung Rahmat Allah SWT.

Kata Kunci: *Hak, Persahabatan, Persaudaraan, Perspektif Islam.*

PERANAN MOTIVASI DAKWAH DALAM BIDANG KEUSAHAWANAN: SATU TINJAUAN AWAL

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Abstrak: *Bidang keusahawanan adalah pemangkin kemampatan ekonomi negara. Ekonomi yang kukuh adalah nikmat kedua yang perlu disyukuri selepas nikmat keamanan. Dalam bidang keusahawanan dan dakwah, sejak zaman dahulu, kejayaan dakwah Islam itu sentiasa berhubungan dengan sokongan ahli-ahli korporat yang berjaya dalam bidang keusahawanan, dan mereka juga terdiri dari kalangan yang aktif berdakwah. Lantaran itu, kajian ini dilakukan untuk meninjau usaha dakwah memperkasa bidang keusahawanan agar umat Islam sentiasa bermotivasi dalam bidang keusahawanan. Metodologi kajian adalah berbentuk kajian kualitatif melalui tinjauan perpustakaan. Dapatan tinjauan awal menunjukkan, pemahaman tuntutan dakwah Islam berkaitan dengan jihad ekonomi, ibadat zakat, amalan sedekah, pementoran, etika dan akhlak dalam perniagaan, serta melazimkan zikir dan doa harian dilihat ada hubungannya, dan dapat dikaitkan dengan aplikasi motivasi dakwah dalam bidang keusahawanan, dan ia menjadi langkah positif ke arah pembentukan usahawan-usahawan yang cemerlang di dunia dan akhirat.*

Kata Kunci: *Jihad Ekonomi, Motivasi Dakwah Dan Keusahawanan, Dunia Korporat Dan Pengurusan Dakwah.*

PENDEKATAN RAHMAH DALAM KEPIMPINAN POLITIK TUN SAKARAN DANDAI

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Abstrak: *Rahmah merupakan satu pendekatan yang merujuk kepada makna kasih sayang dan bersifat ihsan yang diterjemah da lam kehidupan. Dalam konteks kepimpinan yang baik, penerapan rahmah satu elemen penting bagi mencapai hasil yang diinginkan dalam melaksanakan sesuatu perkara. Tun Sakaran Dandai merupakan tokoh politik Sabah berpengaruh berasal dari daerah Semporna telah berjaya mengetengahkan ajaran Islam secara menyeluruh dalam kalangan masyarakat melalui kepimpinan. Penglibatan Tun Sakaran dalam kepimpinan politik pada peringkat tertinggi nyata memberi impak dari sudut pembawaan syiar Islam sehingga beliau dikenali seba gai seorang tokoh bersifat tawaduk, rendah diri dan satu-satunya pemimpin politik Sabah yang mencorak politiknya berserta dengan kekuatan agama. Di dalam penulisan ini pengkaji telah menggunakan kaedah kualitatif iaitu temubual bersama ahli politik, penduduk setempat yang rapat dan menganalisis dokumen melalui sumber bertulis seperti buku-buku, jurnal dan laporan bertulis. Melalui penulisan ini dapat dilihat bagaimana Tun Sakaran Dandai mengaplikasikan pendekatan rahmah dalam berpolitik.. Skop utama dalam p enulisan ini diteruskan dengan meninjau penjelasan tentang pendekatan dan kriteria - kriteria yang telah diaplikasikan oleh Tun Sakaran Dandai dalam memanifestasikan rahmah sebagai wadah dalam perjuangan politik di samping mengangkat syiar agama. Justeru, ha sil dapatan ini jelas membuktikan bahawa beliau merupakan contoh pemimpin politik yang berhasil menunjukkan kewibawaan berpolitik disaluti dengan pendekatan rahmah dan perlu diteladani oleh pemimpin-pemimpin masyarakat yang ada pada masa kini.*

Kata Kunci: *Kepimpinan, Pendekatan Rahmah, Politik, Tun Sakaran Dandai*

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