

# 2016 IPN-MDSG CONFERENCES KUALA LUMPUR, MALAYSIA

KUALA LUMPUR, MALAYSIA 23-24 DECEMBER 2016







Malaysia Doctorate Support Group







Malaysian Postgraduate Conference Network



# Welcome to IPN-MDSG Conferences 2016

#### Dear Professor, Dr and distinguished delegates,

Welcome to the IPN-MDSG Conferences 2016 in Kuala Lumpur, Malaysia. On behalf of *IPN Education Group*, I would like to thank all the Conference Chair, Program Chairs and the Technical Committees. Their high competence and professional advice enable us to prepare the high-quality program. For the participants, we hope all of you have a wonderful time at the conference and also in Kuala Lumpur, Malaysia.

We believe that by this excellent conference, you can get more opportunity for further communication with researchers and practitioners. For the conferences **ICEM 2016**, **ICACEE 2016**, **ICMBA 2016**, **ICABE 2016**, **AMESTIC 2016** and **ICTPAG 2016** more than 70 submitted papers have been received and 55 papers have been accepted and published finally.

In order to hold more professional and significant international conferences, your suggestions are warmly welcomed. And we are looking forward to meet you again next time.

Best Regards, Thank you.

Yours Sincerely,



Datin MZ Zainab Director – Conference Management IPN Education Group Chairman, IPN-MDSG Conferences 2016 Kuala Lumpur, Malaysia

# **Message from IPN Honorary Advisor**

On behalf the IPN Education Group, it is my privilege to welcome you to the IPN Conferences Kuala Lumpur, Malaysia 2016. IPN is an independent, non-political, non-governmental organization of distinguished scientists dedicated to advancing science around the world. We aim to help scientists and researchers to publish their findings in scientific journals and to promote and help to organize worldwide conferences. We believe that has no boundaries, regardless of the great distances between countries and continents. Thus IPN welcomes contributions from researchers from all concern irrespective to the race, colour, religion and nationality.

**Best Regards** 



Prof. Dr. Abdel Rahman Mohammad Said Al Tawaha Honorary Advisor IPN Education Group IPN-MDSG Conferences 2016 Kuala Lumpur, Malaysia



# **About IPN Education Group**

The IPN Education Group is a non-profit international association dedicated to the promotion of international education and university cooperation in the field of Business, Art, Social Science, Management, Education, Science, Technology, Engineering and any other related field.

Through the organization of different international events, it brings together institutions, bodies and organizations from different countries of the world for discussion and cooperation IPN Mission is to promote and enhance the dialogue in education among the institutions devoted to field mentioned above through:

- Promotion of best practice standards in the service of international education.
- The facilitation of relevant forums, training and information exchange.
- Creation and dissemination of knowledge; exert an influence in public policy.
- Production of publications used as a database document for research works, projects and innovation activities held on the international education field.

IPN believes that this is best achieved through international cooperation and promotes the development of closer links among relevant institutions and individuals around the world. IPN supports that such international cooperation can help countries learn from each other and promotes the dissemination of scientific and engineering activities. IPN intends to achieve the mentioned objectives and get an international visibility by the organization of international conferences and by interacting with public and private organisms from all parts of the world.



www.ipneducationgroup.org www.ipnconference.org www.ipnmalaysia.org www.isabis.org



# **ANNOUNCEMENT**

All accepted papers will be published in:

- Australian Journal of Basic and Applied Science (ISI/Thomson Reuters Web of • Science/ERA)(online special issue) (ISSN: 1991-8178).
- International Journal of Advanced and Applied Sciences (IJAAS) (ISI/Thomson • Reuters Web of Science Core Collection) (online issue) (ISSN:2313-626X).
- Research Journal of Social Sciences (RJSS) (ISSN:1815-9125) (Peer Review • Journal).
- Social Sciences (SS)(Scopus Journal) (ISSN: 18185800). •
- International Business Management (IBM) (Scopus Journal) (ISSN: 19935250). •
- Journal of Engineering and Applied Sciences (JEAS) ISSN: 1816949X (Scopus • Journal).
- Journal of Scientific Research and Development (ISI/Thomson Reuters Web of • Science Journal) (online issue) (ISSN: 1115-7569).
- Journal of Applied Sciences Research (JASR) (ISSN:1819-544X) •
- International Journal of Engineering and Technology (IJET) e-ISSN: 0975-4024 • (online version) p-ISSN: 2319-8613 (online version)
- Journal of Informatics and Mathematical Sciences (JIMS) ISSN: 0974-875X • (online) (ISI Journal)
- Global Journal of Pure and Applied Mathematics (GJPAM)ISSN: 0973-1768 • (online) (Scopus Journal)
- World Applied Sciences Journal (WASJ) (online issue ISSN 1818-4952) (ERA **JOURNAL**)

One Best Presenter Award will be selected from each oral session. The Certificate for Best Presenter award will be awarded after presentation session.



### **KEYNOTE SPEAKER:**



### **Prof. Dr. Abdul Talib Bon** Universiti Tun Hussein Onn Malaysia

Dr. Abdul Talib Bon is Professor of Technology Management in Department of Production and Operations Management, Faculty of Technology Management and Business at the Universiti Tun Hussein Onn Malaysia. He has a PhD in Computer Science, which he obtained from the Universite de La Rochelle, France in the year 2008. His doctoral thesis was on topic Process Quality Improvement on Beltline Moulding Manufacturing. He studied Business Administration major in Quality Management at the master's level in the Universiti Kebangsaan Malaysia for which he was awarded the MBA in the year 1998. He's bachelor degree and diploma in Mechanical Engineering which his obtained from the Universiti Teknologi Malaysia. He received his postgraduate certificate in Mechatronics and Robotics from Carlisle, United Kingdom in 1997. He is Manager of Centre for Technology (Furniture Innovation Technology) from 1 September 2016 and Head of Program Bachelor of Technology Management (Furniture Design and Manufacturing) with Honours from 2014 until now. Before this he was the Deputy Dean (Research and Development) at the Faculty of Technology Management and Business in the Universiti Tun Hussein Onn Malaysia from 2008 until December 2011. Dr. Abdul Talib Bon has had over 28 year experience of teaching in higher learning education. A major part of his teaching experience involves teaching mechanical engineering students in polytechnics. However, from the year 1999, he was given the opportunity to be jointed in the Institut Teknologi Tun Hussein Onn (ITTHO), Universiti Teknologi Malaysia as a lecturer in Mechanical Engineering Department. In this institute, he teaches engineering management and quality control at the under-graduate level. Dr. Abdul Talib Bon has multidisciplinary research interests that encompass industrial engineering, quality management and production and operation management. His completed ten research grant projects include applications of forecasting in industries. His current research project is looking into developing process quality improvement (PQI) in manufacturing industries. He has supervised more than 65 undergraduate and postgraduate research projects. He has served as a reviewer for a number of engineering management and computer science conferences and journals as part of his expertise sharing initiatives. He had published more than 150 International Proceedings and International Journals and 8 books. He is also President of Industrial Engineering and Operation Management Society (IEOMS, Malaysia), Council member of Management Science and Operation Research Society of Malaysia (MSORSM), member of International Association of Engineers (IAENG), member of Institute of Industrial Engineer (IIE), USA, member of International Institute of Forecasters (IIF), member of Technological Association of Malaysia (TAM) and associate member of Malaysian Institute of Management (AMIM).



### Abstract:

#### MODELING AND SIMULATION ON ENGINEERING MANAGEMENT USING ARTIFICIAL NEURAL NETWORK

#### Abdul Talib Bon

Zero defect as a goal for the manufacturing sector especially when the factory engage in global market which the market is required a highest grade quality product. A defect will occur when it is fail to meet the intended design. Hence, defect prediction methods play an important role to forecast the number of product defect. For this study, Artificial Neural Network (ANN) used to forecast the product defect in furniture manufacturing in in order to develop a well suit ANN model for the product defect prediction and obtain an accurate prediction defect number for decision making. Colour defect as one of the product defect category. Therefore, data of colour defect was collected within eight (8) working hours for fourteen (14) days and the analysis process carried out by MATLAB R2015a application using the neural network toolbox. The neural network framework for the colour defect prediction was developed with the minimum error. The company is able to conduct prediction process with the framework and make a better decision based on the result in order to reach their goal.

# LIST OF THE CONFERENCE COMMITTEE

#### IPN-MDSG Conferences 2016 Kuala Lumpur, Malaysia Honorary Advisor

Prof. Dr. Abdel Rahman Mohammad Said Al-Tawaha (Ph.D McGill University)

#### IPN-MDSG Conferences 2016 Kuala Lumpur, Malaysia Chairman

Datin MZ Zainab

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IPN-MDSG Conferences 2016 Kuala Lumpu	ır, Malaysia Organising Committee
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Syafieqa	Bieha

# **INSTRUCTION FOR ORAL PRESENTATION**

#### Devices Provided by the Conference Organizer:

- Laptop (with MS-Office & Adobe Reader)
- Projector & Screen
- Laser Sticks

#### Materials Provided by the Presenters:

PowerPoint or PDF files

#### Duration of each Presentation (Tentatively):

- Regular oral presentation: about 15 minutes (including Q&A)
- Keynote speech: about 40 minute (including Q&A)

Notice: Please keep your belongings (laptop and camera etc) with you!

#### During registration:

Original Receipt Representative / Pass Card with lanyard Printed Program Lunch Coupon Participation Certificate (collected from Session Chair after the session) Conference Bag EVALA LUMPUR 2016 IPnmalaysia



#### IPN-MDSG Conferences 2016 Kuala Lumpur, Malaysia Conference Program

December 23, 2016	Venue: Lobby	1000 - 1200	Registration	
	Venue: SKYROOM,	0830 - 0845	Opening Remarks	Opening Remarks
	Level 15	0845 - 1000	Plenary Speech 1	Keynote Speaker – Prof. Dr. Abdul Talib Bon, UTHM
		1000 - 1030	Group Photo	and Coffee Break
December 24, 2016	Venue: SKYROOM, Level 15	1030 - 1230	Session 1	
	Venue: KONTIKI RESTAURANT @ Level MEZZAIN	1230 – 1400	Lunch	
	Venue: SKYROOM, Level 15	1400 - 1600	Session 2	
	Venue: PENANG SUITE, Level 2	1400 - 1600	Session 3	
	Venue:	1600 - 1630	Coffee Breat	x
	Venue: SKYROOM, Level 15	1630 - 1800	Session 4	
	Venue: PENANG SUITE, Level 2	1630 - 1800	Session 5	

Session 1 Time: 1030 - 1230 Venue: **SKYROOM** Session Chair: **Prof. Dr. Talib Bon** 



No	Paper ID	Presenter
1	001-kul	Suspended Solids Transport Simulation for Siakap North Petai Oil and Gas Platform: Cost-Effective and Environmentally Sustainable Offshore Disposal of Wastes
		Su Yean Teh, <b>Hock Lye Koh</b>
	000	Sunway University Business School, Selangor Malaysia
2	002- amestic	Two-dimensional simulation of diffusion and advection effects in enzymatic hydrolysis of cellulose
		Norazaliza Mohd Jamil, Qi Wang
		Universiti Malaysia, Malaysia
3	017-kul	Construction Cost and Carbon Emission Computational Model for Office Buildings in Malaysia
		<b>Mustafa M. A. Klufallah*,</b> Idris Othman, Muhd Fadhil Nuruddin, Mohd Faris Khamidi
		Universiti Teknologi PETRONAS, Malaysia
4	006-kul	A Preliminary Study of Heavy Metals Removal from Synthetic Rainwater by Natural Mineral Adsorbents
		Puganeshwary Palaniandy , <b>Khairunnisa Fakhriah Mohd Omar</b>
5	011-kul	Universiti Sains Malaysia, Pulau Pinang, Malaysia Adsorption kinetics and isotherm of methylene blue by thermally treated alum-based water treatment plant sludge
		Soleha Mohamat Yusuff, Ong Keat Khim <sup>*</sup> , Wan Md Zin Wan Yunus, A. Fitrianto, M. B. Ahmad, N. A. Ibrahim <b>Mohd Junaedy Osman</b> , Teoh Chin Chuang
		Universiti Pertahanan Nasional Malaysia, Malaysia
6	012-amestic	Investigated Performance of Davidson Model for DVB-T2 Propagation in medium and small Urban Area
		Pitak Keawbunsog, Pitchaya Supannakoon, Sathaporn Promwong
_		King Mongkut's Institute of Technology Ladkrabang, Thailand
7	018-kul	Barriers to Sustainable Practices towards Low Carbon Emission Projects in Malaysia
		<b>Mustafa M. A. Klufallah*,</b> Idris Othman, Muhd Fadhil Nuruddin, Mohd Faris Khamidi
	00411	Universiti Teknologi PETRONAS, Malaysia
8	024-kul	Structural Dynamic Analysis of A Cross Country Mountain Bike Frame
		Kausalyah V., Zulhilmi Shah, Shasthri S.
		Universiti Teknologi MARA, Malaysia

Session 2 Time: 1400-1600 Venue: **SKYROOM** Session Chair: **Dr. Mohd Tahir Ismail** 



No	Paper ID	Presenter
1	008-kul	Simple and Rapid Quantitative Determination of Total Arsenic
		Jin Hoong Leong, <b>Keat Khim Ong*,</b> Wan Yunus Wan Md Zin, Fitrianto Anwar, Chin Chuang Teoh, Hussin Abdul Ghapor
		Universiti Pertahanan Nasional Malaysia, Malaysia.
2	009-amestic	R-K 4 <sup>th</sup> order Mathematical Model of the Hypothalamic-Pituitary- Adrenal Axis validation with MATLAB simulation
		Sanam Ayub, Qadir Bakhsh
		Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah Pakistan
3	004-kul	Tsunamis Pose Severe Risks to Penang Beaches: A Critical Assessment by Model TUNA-RP Simulation
		Hock Lye Koh, Su Yean Teh, <b>Wai Kiat Tan,</b> Chee Kit Ho and Kexin Lee
		Sunway University Business School, Selangor Malaysia
4	026-kul	Identification of Dorsal and Ventral Surface of Rubber Seed using Image Processing and Machine Learning Approach
		<b>S. N. 'Afiah Mohd Johari,</b> S. Khairunniza-Bejo*, W. Ishak Wan Ismail
		Universiti Putra Malaysia, Malaysia
5	009-kul	Influence of SLES-Layered Double Hydroxides on the Mechanical and Biodegradation Properties of Poly(Lactic Acid) Nanocomposites
		<b>Siti Hasnawati Jamal</b> *, Ong Keat Khim, Noor Azilah Mohd Kasim, Mansor Ahmad, Wan Md Zin Wan Yunus
		Universiti Pertahanan Nasional Malaysia, Malaysia
6	003-kul	Load-Balanced Parallel Architectures for 2-D Water Quality Model PARATUNA-WQ on OpenMP
		<b>Wai Kiat Tan,</b> Hock Lye Koh, Su Yean Teh
		Sunway University Business School, Selangor Malaysia
7	012-kul	Analysis of Operational Energy Consumption Toward Energy Efficiency and Conservation by Promoting Sustainability in Buildings
		Farzaneh Moayedi, Noor Amila Wan Abdullah Zawawi, Mohd Shahir Liew
		Universiti Teknologi PETRONAS, Malaysia

Session 3 Time: 1400 - 1600 Venue: **PENANG SUITE** Session Chair: **Prof. Dr. Koh Hock Lye** 



No	Paper ID	Presenter
1	005-kul	Malaysian Green Consumers Demographical Segmentation
		Mohd Nazri Mohd Noor, <b>Mohd Amirul Hafidz</b> , Ahmat Rudaini Sham Abdullah Jumain, Mohd Ariff Mustafa, Izzat Fakhruddin Kamaruzaman <i>Multimedia University, Melaka</i>
2	015-kul	Investment and Financing Working Capital Policy towards Small
		Medium Enterprise's (SME) Financial Capability in Malaysia
		Nor Edi Azhar, Mohamad *, Noor Raida, Abd Rahman, Noriza, Mohd Saad
		Universiti Tenaga Nasional, Malaysia
3	016-kul	Developing Individual Training Impact Scale for workplace training: Testing the Malaysian sample to determine the impact of training on individual effectiveness
		Siti Fardaniah Abdul Aziz, Abu Daud Silong, Zaki Zakaria
		Universiti Kebangsaan Malaysia, Malaysia
4	007-kul	Psychological Contract Upon Organizational Entry of InternshipStudents: An In-Depth InterviewAfandi Yusof, Mohd Nazri Mohd Noor, Azizi Samsudin, Mohammad Jais and Mohd Anwar Mohd YusoffMultimedia University, Malaysia
5	023-kul	CEO Pay, Corporate Governance and Cash Holding
		Adilah Azhari
		Universiti Utara Malaysia, Malaysia
6	025-kul	Deviated from Welfare State Concept: Policymakers should reformed its Social Protection
		Noor Ashikin Mohd Rom, Mohamad Lusfi Yaakob, Nurbani Md Hassan
		Multimedia University, Malaysia
7	015-amestic	The Factor Affecting Malaysian Citizens Satisfaction With Open Government Data
		Mohammed Shihab Ahmed*, Dr. Massudi bin Mahmuddin Dr. Nor Idayu binti Mahat.
		Universiti Utara Malaysia, Malaysia

Session 4 Time: 1630 - 1800 Venue: **SKYROOM** Session Chair: **Dr. Siti Fardaniah Abdul Aziz** 



No	Paper ID	Presenter
1	001-ictpag	ENTREPRENEURSHIP EDUCATION AT INSTITUTIONS OF HIGHER LEARNING: RECOMMENDATIONS OF ACADEMICS AND STUDENTS IN MALAYSIA
		Zaimah Zainol Ariffin*, Natrah Saad
2	003-ictpag	Universiti Utara Malaysia, Malaysia "F" character experiment: simulation test on audit and inspection
2	005-ictpag	concept effectiveness and efficiency
		Kang Eng Thye, Kang Chye Mei
		Universiti Utara Malaysia, Malaysia
3	004-ictpag	GENDER DIFFERENCES IN 'BLOGGING' TOURISM ACTIVITIES:
		A NETNOGRAPHY OF TRAVELERS ON PENANG ISLAND, MALAYSIA
		Farah Syazwani Hayrol Aziz* and Nor Hafizah Selamat
		Universiti Sains Malaysia, Malaysia
4	007-ictpag	JUVENILES AND THEIR PARENTS: NARRATIVES OF MALE & FEMALE ADOLESCENTS IN REHABILITATION CENTRES
		Haja Mydin Bin Abdul Kuthoos* and Noraida Endut
		Universiti Sains Malaysia, Malaysia
5	022-kul	Performance Management in Crude Palm Oil Industry using Analytical
		Hierarchy Process
		Abdul Talib Bon, Silvia Firda Utami and Sukono
		Universiti Tun Hussein Onn Malaysia, Malaysia
6	020-kul	The Hierarchy of Need, Fev Matrix in the concept generation towards the existing product design in product development: A Watch Product
		<b>Fevi Syaifoelida,</b> A.M Megat Hamdan, Murrad. M
		Universiti Tenaga Nasional, Malaysia

Session 5 Time: 1630 - 1800 Venue: **PENANG SUITE** Session Chair: **Dr. Ong Keat Khim** 



No	Paper ID	Presenter
1	011-amestic	Access Channel Selection for WLAN using Fuzzy Expert System
		Bakeel Maqhat, Mohd Dani Baba, Ruhani Ab Rahman and Anwar Saif
		Universiti Teknologi MARA, Malaysia
2	007- amestic	Modelling The Relationship Between Malaysia Exchange Rate and Sectoral Stock Market Indices
		Mohd Tahir Ismail, Lee Siew Yong, Lim Ying Ming
		Universiti Sains Malaysia, Pulau Pinang, Malaysia
3	004- amestic	Comparison of Information Criterion on Identification of Discrete-Time Dynamic System
		Abd Rahman Mohd Nasir, Md Fahmi Abd Samad
		Universiti Teknikal Malaysia Melaka, Malacca, Malaysia
4	013-amestic	Prediction Model for Broadcasting Propagation in Urban Area
		Pitak Keawbunsong, Pitchaya Supannakoon, Sathaporn Promwong
		King Mongkut's Institute of Technology Ladkrabang. Thailand
5	014-amestic	Ontology-based Semantic representation for arabic text data
		Mamdouh Farouk
		Assiut University,Assiut, Egypt
6	021-kul	Effects of POFA and Lime on Soft Soil stabilization
		Sim H. P. *, Shakri M. S.
		SEGi University, Malaysia



# **Conference Venue**



### **The Federal Kuala Lumpur**

35, Jalan Bukit Bintang, Bukit Bintang, 55100 Kuala Lumpur, Federal Territory of Kuala Lumpur, Malaysia

#### **Conference Secretariat Contact:**

IPN Education Group 37B Jalan Pelabur 23/B, Seksyen 23 40300 Shah Alam Selangor Darul Ehsan Malaysia Phone No. : +6018-2189487 (call/sms/whatsapp) Tel: +603-55486116/55455516 Fax no: +603-55486116

> Programme website: <u>www.ipneducationgroup.org</u> <u>www.ipnconference.org</u> <u>www.pgtsresources.com</u>

Contact Person: +6018-2189487 (IPN Education Group) +6013-4234705 (Nurul)



# Note



### List of Abstract

No	Paper	Abstract
1	001-kul	Suspended Solids Transport Simulation for Siakap North Petai Oil and Gas Platform: Cost-Effective and Environmentally Sustainable Offshore Disposal of Wastes
		Su Yean Teh <sup>1</sup> , <b>Hock Lye Koh</b> <sup>2</sup>
		<sup>1</sup> School of Mathematical Sciences, Universiti Sains Malaysia, 11800 USM, Pulau Pinang, Malaysia; syteh@usm.my <sup>2</sup> Sunway University Business School, Jalan Universiti, Bandar Sunway, 47500 Selangor Malaysia; <u>hocklyek@sunway.edu.my</u>
		<b>Abstract:</b> Offshore oil and gas exploration in deep water is more expensive compared to onshore. Strained by current low prices of crude oil, cost rationalization is essential for economic viability of oil and gas exploration offshore. Offshore exploration involves costly activities such as well drilling, well completion and testing as well as installation of flow lines and subsea facilities. Well drilling generates drill cuttings which may be disposed either onshore or offshore. Onshore disposal is not cost-effective and operationally complicated, and should be the option of last resort. More cost-effective offshore disposal of drill cuttings should therefore be utilized if it can be proven to be environmentally sustainable to the marine environment and ecosystems. This research was initiated to assess the environmental sustainability of offshore disposal of drill cuttings by means of model simulations. A critical concern in drill cuttings offshore disposal is the suspended solids (SS) created that might pose adverse impact to marine ecosystems. This paper presents the results of a simulation study by means of AQUASEA, developed by Vatnaskil Consulting Engineers, on the transport and fact of SS at an offshore oil and gas exploration platform in Siakap North Petai Field, off Sabah in the South China Sea. Simulated SS plumes subject to the dominant semi-diurnal tidal flows in the South China Sea and local eddies will be presented. Simulation results indicate that this offshore disposal of drill cuttings is environmentally sustainable at the current rates of well drilling.
2	003-kul	Load-Balanced Parallel Architectures for 2-D Water Quality Model
		PARATUNA-WQ on OpenMP
		Wai Kiat Tan <sup>1,2</sup> , Hock Lye Koh <sup>1</sup> , Su Yean Teh <sup>2</sup>

	<sup>1</sup> Sunway University Business School, Jalan Universiti, Bandar Sunway, 47500 Selangor, Malaysia; waikiatt@sunway.edu.my; hocklyek@sunway.edu.my <sup>2</sup> School of Mathematical Sciences, Universiti Sains Malaysia, 11800 USM, Pulau Pinang, Malaysia; <u>syteh@usm.my</u>
	<b>Abstract:</b> Because of the potential speedup, parallel algorithms have recently been developed for improving serial applications in ocean and coastal hydrodynamics and water quality simulations. Developing a parallel program, however, is a difficult task that requires special and expensive processing resources. Motivated by the potential benefits of parallelization, this paper develops a load-balanced parallel architecture on OpenMP to improve on an in-house serial two-dimensional water quality simulation model to a parallel application named PARATUNA-WQ. Analysis of the performance of speedup is discussed to justify the use of parallel architecture in water quality simulation model. Speedup achieved by PARATUNA-WQ is close to the maximum theoretical speedup predicted by the Amdahl Law. Further enhancement for application to very large computational domain consisting of 25 million computational nodes is possible by integrating MPI architecture into the framework of OpenMP, the result of which will be reported in a subsequent paper.
004-kul	Tsunamis Pose Severe Risks to Penang Beaches: A Critical Assessment by Model TUNA-RP Simulation
	Hock Lye Koh <sup>1</sup> , Su Yean Teh <sup>2</sup> , <b>Wai Kiat Tan<sup>1,2</sup>,</b> Chee Kit Ho <sup>1</sup> and Kexin Lee <sup>2</sup>
	<sup>1</sup> Sunway University, Jalan Universiti, Bandar Sunway, 47500 Selangor, Malaysia; hocklyek@sunway.edu.my; ckho@sunway.edu.my; waikiatt@sunway.edu.my <sup>2</sup> School of Mathematical Sciences, Universiti Sains Malaysia, 11800 USM, Pulau Pinang, Malaysia; <u>syteh@usm.my</u>
	<b>Abstract:</b> Tsunamis pose severe risks to Penang beaches. The Andaman mega tsunami on December 26, 2004 caused the death of over 200,000 people worldwide, including 52 deaths in Penang Island, Malaysia. Together with the 2011 Fukushima tsunami, these devastating tsunamis are a harbinger of more future catastrophic tsunamis. In-house tsunami simulation model TUNA-RP is enhanced and used to investigate the relationships between steepness of beach slope and tsunami impacts. Inundation distances and runup heights increase exponentially as the steepness of beach slope decreases, implicating severe vulnerability for low lying beaches in Penang, including the Gurney Drive, Pasir Panjang, Teluk Bahang, Batu Feringhi and Tanjung Bungah. Potential tsunami runup heights reaching 10 m may result in high human casualty exceeding thousands in locations with high concentrations of residents and tourists. It is the responsibility of state and local government to ensure the prohibition of high-density development and of extensive coastal reclamation in tsunami prone areas. Development of community
	004-kul

4	005-kul	Malaysian Green Consumers Demographical Segmentation
		Mohd Nazri Mohd Noor, <b>Mohd Amirul Hafidz</b> Ahmat Rudaini Sham Abdullah Jumain Mohd Ariff Mustafa Izzat Fakhruddin Kamaruzaman
		Faculty of Business, Multimedia University, Melaka
		<b>Abstract:</b> The purpose of this paper is to segment the Malaysian consumers based on the demographical characteristics. This descriptive and hypotheses testing study was conducted to explain the difference among groups within the context of green consumers. Centre of attention is given to the consumers' decision to purchase green products. Self-administered questionnaires were employed to obtain meaningful data from 230 consumers at major shopping malls in Melaka, Malaysia from September 2015 until February 2016. Based on the analysis, there is no significant difference between male and female consumers in their green purchase decision. However, variables such as age, education and level of income have shown a significant difference between groups and the effects are somewhat large. Generally, results from this study helps the marketers to be more focused upon designing their promotional activities. In the future, marketers should concentrate on the consumers aged 40 years old and above, possessed at least a bachelor degree and income of above RM5000 to promote green products. This study adds to the literature in green marketing. It represents findings from developing country that can be used for future comparative studies related to green market segmentation. The findings have strong implications to both academic and industry particularly on the aspect of consumers' readiness to accept green products as their
5	006-kul	future way of life.A Preliminary Study of Heavy Metals Removal from SyntheticRainwater by Natural Mineral Adsorbents
		Puganeshwary Palaniandy *1, <b>Khairunnisa Fakhriah Mohd Omar</b> <sup>2</sup>
		<ol> <li><sup>1</sup> School of Civil Engineering, Universiti Sains Malaysia, 14300 Nibong Tebal, Pulau Pinang, Malaysia</li> <li><sup>2</sup> School of Civil Engineering, Universiti Sains Malaysia, 14300 Nibong Tebal, Pulau Pinang, Malaysia</li> </ol>
		<b>Abstract:</b> Rainwater harvesting system has many advantages to citizens. The low concentration of harvested rainwater is the primary benefits to transform it as an alternative source for drinking water. However, the presence of heavy metals such as iron and manganese in drinking water may cause illness to the user. Therefore, further treatment is necessary for the harvested rainwater to reduce the content of these heavy metals. Many treatments have been applied in order to treat rainwater, such as UV disinfection, reverse osmosis, and ion exchange. In this study, adsorption process was chosen as a treatment for the rainwater. The performance of natural mineral adsorbents such as zeolite, limestone, and laterite soil in removing the low concentration of heavy metals in rainwater is investigated. The



	natural mineral adsorbents were washed thoroughly with distilled water and were then oven dried at 105°C for 24 hours. The synthetic rainwater was prepared separately by diluting 1000mg/L of stock solution for iron and manganese to obtain the desired concentration of 1mg/L for each heavy metal. The experimental work in this research was carried out by applying different dosage of the natural adsorbents into 100mL of the synthetic rainwater and were shaken at 200 rpm for 60 minutes. The obtained results were then analysed by developing Langmuir and Freundlich adsorption isotherm model. The analysis showsed that the removal of iron and manganese by different types of adsorbents were fitted Langmuir isotherm model, suggesting the adsorption process is monolayer. In this study, the obtained results showed that the sequence of the maximum adsorption capacity of iron by the adsorbents follow the sequence: limestone > laterite soil > zeolite. However, the removal of manganese shows a different results, which the sequence of maximum adsorption capacity of manganese is laterite soil > limestone > zeolite.
007-kul	Psychological Contract Upon Organizational Entry of Internship Students: An In-Depth Interview
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	75450, Ayer Keroh, Melaka, Malaysia
	<b>Abstract:</b> The aim of this study is to understand the psychological contract between employers and internship students. An in-depth study was conducted to obtain the expectations from managerial perspectives. This is in conjunction with the Malaysian universities' aspiration particularly on the aspect of producing a holistic graduate which is at par with the companies' requirements. This study discovered two main categories namely self-development and university wide-actions that must be taken into consideration by the university. The respondents for this study were the companies assigned to the researchers which is also the place where the students undertaking their internship. Majority of the respondents agreed that students must be equipped with extra course and knowledge despite their majoring in the university. Managers of the companies highlighted the importance of multitasking, ability to complete the task given to the internship students, well-versed with the background of the company and products, becoming an active team player, managing old and new customers and instill confidence among consumers and ability to value creativity. This study adds another literature to the human resource (HR) discipline a
008-kul	Simple and Rapid Quantitative Determination of Total Arsenic
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		<b>Abstract:</b> Arsenic contamination in the environment has become the worldwide problem due to its harmful effect to the environment. The main species of arsenic in natural waters are arsenic (III) and arsenic (V).Thus, detection of both species is crucial, but arsenic is normally detected as arsenic (III) or arsenic (V) individually. Colorimetric method is widely used for detection of arsenic on sites but the interpretation of the results is operator dependent. Hence, the main objective of this study is to develop a mathematical model to determine total inorganic arsenic quantitatively, where the accuracy and precision of the colorimetric method is enhanced by image processing technique. The developed mathematical model relates total inorganic arsenic concentrations with red, green and blue (RGB) color values, and it can be expressed as: total inorganic arsenic arsen
		be expressed as: total inorganic arsenic = 405 - 0.133 Red - 1.88 Green
		- 0.559 Blue, The adequacy of the model was proved statistically and it
		can determine total inorganic arsenic with a linear range of 0 to 300
		$\mu$ g/L and a detection limit of 2.08 $\mu$ g/L.
8	009-kul	μg/L and a detection limit of 2.08 μg/L. Influence of SLES-Layered Double Hydroxides on the Mechanical
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		modified by surfactant via an anion exchange process. X-ray diffraction result showed LDH interlayer spacing increased from 8.10Å to 34.23Å indicated intercalation of the surfactant molecules into LDH was successfully carried out. The result of tensile strength test showed the addition of 1wt% of SLES-LDH in the PLA, improved 26% of its tensile strength compared to that of the pure sample. To study the presence of SLES-LDH on the product biodegradability, burial test was carried out. It reveals that PLA nanocomposites degrade faster than the starting polymer and the degradation is SLES-LDH content dependent.
9	011-kul	Adsorption kinetics and isotherm of methylene blue by thermally
		treated alum-based water treatment plant sludge
		Soleha Mohamat Yusuff <sup>1</sup> , Ong Keat Khim <sup>2</sup> *, Wan Md Zin Wan Yunus <sup>3</sup> , A. Fitrianto <sup>4</sup> , M. B. Ahmad <sup>5</sup> , N. A. Ibrahim <sup>5</sup> <b>Mohd Junaedy Osman</b> <sup>2</sup> , Teoh Chin Chuang <sup>6</sup>
		<ul> <li><sup>1</sup>Department of Defence Science, Faculty of Defence Science and Technology, Universiti Pertahanan Nasional Malaysia, Kem Sungai Besi, 57000, Kuala Lumpur, Malaysia; sol_ea@yahoo.com</li> <li><sup>2</sup>Department of Chemistry and Biology, Centre for Defence Foundation Studies, Universiti Pertahanan Nasional Malaysia, Kem Sungai Besi, 57000, Kuala Lumpur, Malaysia; <u>ongkhim@upnm.edu.my</u>; junaedy@upnm.edu.my</li> <li><sup>3</sup>Department of Science and Technology Defense, Universiti Pertahanan Nasional Malaysia, Kem Sungai Besi, Sungai Besi, 57000, Kuala Lumpur, Malaysia; wanmdzin@upnm.edu.my</li> <li><sup>4</sup>Department of Mathematics, Faculty of Science, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia; <u>anwarfitrianro@upm.edu.my</u></li> <li><sup>5</sup>Department of Chemistry, Faculty of Science, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia; <u>mansorahmad@upm.edu.my</u>; <u>norazowa@upm.edu.my</u></li> <li><sup>6</sup>Engineering Research Centre, Malaysian Agricultural Research and Development Institute Headquarter, G P.O. Box 12301, 50774 Kuala Lumpur, Malaysia; <u>cchin@mardi.gov.my</u></li> </ul>
		<b>Abstract:</b> This paper describes the sorption kinetic and isotherm of methylene blue (MB) by thermally treated alum sludge (TAS) at the laboratory scale. Kinetics study was conducted by varying initial concentrations of MB (50, 150 and 250 mg/L) and contact time (30, 60, 120 and 180 min) whereas adsorption isotherm was investigated at various initial concentrations (10, 50, 100, 200, 300 and 400 mg/L) at constant temperature (25 °C), contact time and agitation speed. Lagergren, Ho and Mckay and intra-particle diffusion kinetics modes were applied to the experimental data while the adsorption isotherms are described by Langmuir and Freundlich and Temkin isotherm models. The results showed that sorption kinetics model and Langmuir isotherm model, respectively. The maximum adsorption capacity ( $q_m$ ) obtained from Langmuir plot was 25.445 mg/g. It can be concluded the adsorption of MB by TAS is monolayer adsorption.
10	012-kul	Analysis of Operational Energy Consumption Toward Energy
		Efficiency and Conservation by Promoting Sustainability in Buildings

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		<sup>a</sup> Department of Civil & Environmental Engineering, Universiti Teknologi PETRONAS, Bandar Seri Iskandar, 32610 Tronoh, Perak, Malaysia <sup>b</sup> Department of Geosciences and Petroleum Engineering, Universiti Teknologi PETRONAS, Bandar Seri Iskandar, 32610 Tronoh, Perak, Malaysia
		<b>Abstract:</b> Global warming mitigation is used as a requisite key to promote approaches and sustainable policies in developing countries that aim to minimize the level of carbon emission in built environment. In the past few years, energy demand has grown enormously in Malaysia. CO <sub>2</sub> emission from energy consumption, mainly of electricity is a stark condemnation of commercial sector. Building operational energy particularly the thermal aspect, is the dominant factor to be highlight and investigate due to the fact that it is the main proportion of operational energy consumption in buildings. The rate of energy dissipation in building components depends on design and environmental conditions. Accordingly, actions need to be taken in order to promote the quality of buildings in terms of heat exchanges, which can lead to a significant energy saving. Using of appropriate thermal insulation is effective way to diminish greenhouse gas emissions by reducing energy consumption. Therefore, The aim of the study is to investigate and determine the total amount of energy consumption from operation of baseline building was compared with the eco-friendly existing office building. Results shows that, after implementation of sustainable solutions in the case study, operational energy consumption was successfully reduced to a grate extend.
11	015-kul	Investment and Financing Working Capital Policy towards Small Medium Enterprise's (SME) Financial Capability in Malaysia
		<b>Nor Edi Azhar, Mohamad *1</b> , Noor Raida, Abd Rahman <sup>2</sup> , Noriza, Mohd Saad <sup>3</sup>
		<ol> <li><sup>1</sup> Finance &amp; Economics Department, The National Energy University (UNITEN),Sultan Hj Ahmad Shah Campus, 26700,Muadzam Shah Pahang, Malaysia</li> <li><sup>2</sup> Finance &amp; Economics Department , The National Energy University (UNITEN),Sultan Hj Ahmad Shah Campus, 26700,Muadzam Shah Pahang, Malaysia</li> <li><sup>3</sup> Accounting Department, The National Energy University (UNITEN),Sultan Hj Ahmad Shah Campus, 26700,Muadzam Shah Pahang, Malaysia</li> </ol>
		<b>Abstract:</b> Subsequently, one of the significant features that could create towards SME's financial incompetency is the ineffective of working capital management. Motivated by a lack of research on working capital practices of SME in Malaysia, an analysis for a sample of 116 SME company listed with the SME Corporation of Malaysia; covering the period of 2009-2014 was. Objective: This study performs a preliminary analysis in identifying the influence of investment and financing



		working capital policy for Small and medium-sized enterprises (SMEs) in Malaysian context towards firm's financial capabilities. Results: Applying correlations and Pooled Ordinary Least Square Regression analysis, the result provide evidence indicating significant associations between level of aggressiveness of Investment policy and Financing Policy towards SME financial capabilities. Conclusion: This study provide significant contribution towards the literature on working capital policy for SME by identifying the conservatives and aggressiveness of investment policy and financing policy in working capital management from Malaysian perspective
12	016-kul	Developing Individual Training Impact Scale for workplace
		training: Testing the Malaysian sample to determine the impact of
		training on individual effectiveness
		Siti Fardaniah Abdul Aziz <sup>1</sup> , Abu Daud Silong <sup>2</sup> , Zaki Zakaria <sup>3</sup>
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		Malaysia
		<sup>3</sup> Public Service Department of Malaysia, Block C1,omplex C, Central
		Administration of The Federal Government, 62510 Putrajaya, Malaysia
		Abstract: The purpose of this article is to report the development of Individual Training Impact Scale (ITIS); the instrument was developed because there are limited instruments that can measure the impact of training on individual effectiveness. Hence, ITIS was constructed based on four studies to generate items, administer questionnaire, reduce initial items, and testing it through a pilot study. The first version of ITIS comprises of 55 items; however, only 30 items left in the final version. The pilot study among the Malaysian Civil Servants demonstrated that employee training had significant impact on individual effectiveness. Hence, ITIS can be used to determine the impact of training on individual effectiveness for better organisation and business administration.
13	017-kul	Construction Cost and Carbon Emission Computational Model for Office Buildings in Malaysia
		<b>Mustafa M. A. Klufallah<sup>a</sup>*,</b> Idris Othman <sup>b</sup> , Muhd Fadhil Nuruddin <sup>c</sup> , Mohd Faris Khamidi <sup>d</sup>
		<ul> <li><sup>abc</sup> Department of Civil &amp; Environmental Engineering, Universiti Teknologi</li> <li>PETRONAS, Bandar Seri Iskandar, 32610 Seri Iskandar, Perak, Malaysia.</li> <li><sup>d</sup> Department of Built Environment, University of Reading Malaysia,</li> <li>Menara Kotaraya, 80000, Johor Bahru, Johor, Malaysia</li> </ul>

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	040 h j	Abstract: A novel embodied carbon emission and construction cost computational optimization model has been developed based on evolutionary Genetic Algorithm (GA) for purpose built offices in the Malaysian construction industry. The GA evaluation was lack of implementation in addressing financial and environmental performances for construction projects in Malaysia. Therefore, the office project was evaluated through the adoption of ISO 14040 framework and evolutionary GA. The model was designed to provide alternative optimal design solutions for office buildings, which can be used at the early project planning and design stages. The assessment of embodied emissions was limited to pre-construction phase with "cradle to site" boundary. The model was tested statically to confirm the accuracy of the generated results. It provides an assessment model for managing carbon emission based on evaluation of environmental and financial performances and it was validated by an application to an office building and the findings obtained suggest that it would be suitable for use in practice.
14	018-kul	Barriers to Sustainable Practices towards Low Carbon Emission
		Projects in Malaysia
		Mustafa M. A. Klufallaha*, Idris Othmanb, Muhd Fadhil Nuruddinc,
		Mohd Faris Khamidi <sup>d</sup>
		abe Den anten ent of Civil & Environmental Environmental Environmental Television
		<sup>abc</sup> Department of Civil & Environmental Engineering, Universiti Teknologi PETRONAS, Bandar Seri Iskandar, 32610 Seri Iskandar, Perak, Malaysia.
		<sup>d</sup> Department of Built Environment, University of Reading Malaysia,
		Menara Kotaraya, 80000, Johor Bahru, Johor, Malaysia
		<b>Abstract:</b> The Malaysian construction industry significantly contributes as an empowerment to its development vision of 2020 by reducing up to 40% of carbon emission. Moreover, the industry accounts as threat to the environment, not only in terms of natural resources consumption but also in emitting million tons of carbon emission annually. In fact, Malaysia is categorized the 30th in the world's ranking in carbon emission level. Several studies attempt to investigate and review barriers that face construction stakeholders in order to provide integration of sustainability in construction industry. However, the barriers were lacking in terms of addressing carbon emission aspects of sustainable practice and limit the emissions from construction projects in Malaysia. This paper investigates the major barriers of organization in achieving sustainability's best practice. The identified barriers from the perspective of construction stakeholders in Malaysia were categorised based on factor analysis, which are professional and capacity, design and technologies, cost and finance, and, knowledge and culture.
15	020-kul	The Hierarchy of Need, Fev Matrix in the concept generation towards the existing product design in product development: A
		Watch Product
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		Abstract: Customer satisfaction is a measure of how products and
		services supplied by a company meet or surpass customer expectation.
		How to translate it is important because it provides business owners
		including industry with a metric that they can be used to manage and
		improve their businesses. In a competitive marketplace where
		businesses compete for customers, customer satisfaction is seen as a
		key differentiator. Good quality measures need to have high satisfaction
		badings, good reliability, and low error variances. Nowadays, the lack of
		understanding towards the customer requirement is one of the issue
		that need to be considered in designing process. How to achieve this
		target? Most of the tools in design such as Pugh Matrix, is one that
		considered the highest weighted to become the best or selected one in
		concept selection, but how about the existing product in market? How
		to make it more valuable in market? The solution is by knowing which
		element in product is important or require by consumer and neglect the
		unimportant by go through the redesign process. In order to achieve
		this idea, design selection tool has been used in this study as a concept
		selection, Pugh Matrix. While in concept generation process, it required
		the critical thinking of design process, Fev Matrix is introduced. It will
		helps to create or generate the important element in an existing product
		towards redesign improvement and manufacture the product demand in
		future.
16	021-kul	Effects of POFA and Lime on Soft Soil stabilization
		Sim H. P. *1, Shakri M. S. <sup>2</sup>
		<sup>1</sup> SEGi University, Faculty of Engineering and The Build Environment, 47810
		Petaling Jaya, Malaysia
		Abstract: With the rapid development within the urban area and
		increment of the price of land due to demand the development then
		moving outwards near to the coastline area which contain soft soil. Soft
		soil is considerable unsafe for construction (Kannia et al., 2016). With
		the weak physical and mechanical properties, such as high water
		content, high void ratio, high compressibility, low shear strength, and
		high sensitivity (Osman et al., n d.). Soil stabilization is the most
		economical way to improve the properties of the soft soil (Saxena et al.,
		2007). It uses additives such as Portland cement, lime, POFA, fly ash,
		silica fume, rice husk. Therefore, the mixture of lime and POFA with clay
		soil has been used for research. Four preliminary test have been
		conducted which are sieve analysis, compaction test, Atterberg limit
		test and Pycnometer test on the clay soil. The properties of taken clay
		soil, with specific gravity of 2.7, plasticity Index of 9, optimum moisture
		content 16%, maximum dry density 1.77 g/cm <sup>3</sup> and 51% pass through

17	022-kul	<ul> <li>sieve No. 200. For main test, consolidation test and compaction test on the 20% replacement of clay soil with POFA and lime with alternate 16% to 4%, till 4% to 16% between POFA and lime ratio. It is recorded that with the addition of POFA and lime as a stabilizer it slightly changes of the maximum dry density and optimum moisture content. Based on the One-Dimensional on the clay soil, the result shows that by increasing the lime content it shows a significant improvement on compressibility which reduction of consolidation index Cc.</li> <li>Performance Management in Crude Palm Oil Industry using</li> </ul>
		Analytical Hierarchy Process
		Abdul Talib Bon 1*, Silvia FirdaUtami 2** and Sukono 3**
		Department of Production and Operation Management, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Johor, Malaysia. Email talibon@gmail.com* Department of Production and Operation Management, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Johor, Malaysia** Department of Mathematics, Faculty of Mathematics and Natural Sciences Universitas Padjadjaran, Bandung, Indonesia***
18	023-kul	<b>Abstract:</b> Decision making has become a routine activities carried out by the production manager at Palm Oil Mill company. One of the problems that will arise is the decline in production quantity. Therefore, this study intended to help the company to determine the optimal amount of crude palm oil production and to determine the order of priority factors influencing the decline in production quantity and also apply the Analytical Hierarchy Process (AHP) method in the production planning the company to assist and facilitate the decision-makers in making decisions. The data input obtained from documentation like inventory, demand and production data. In addition, AHP also is a method for decision making and the data obtained from interviews and questionnaire. The results of this study is the total production and inventories of Crude Palm Oil by the year 2014 turned into optimal and stable; profit is higher than previously; then, the plot data also showed that the total production in 2014 is not stable because there are still decreased. Then, the main factors affecting the decline of total production is internal factors. The Order of priority of the internal factors is factor capital, labor, raw materials and technology & machines. <b>CEO Pay, Corporate Governance and Cash Holding</b>
10	023-Kui	CEO Fay, Corporate Governance and Cash homing
		Adilah Azhari
		Universiti Utara Malaysia
		<b>Abstract:</b> This empirical study focuses on the effect of CEO pay and corporate governance on cash holdings. The research sample consists of 183 publicly traded companies listed on the FTSE 350 from 1999 to 2014. The study investigates the determinants of cash holdings based on free cash flow and the agency model. The analysis documents that CEO ownership has positive and strong relationships with cash holdings. The results support the hypothesis that equity compensation can be used to

		align managers' interests with those of shareholders.
19	024-kul	Structural Dynamic Analysis of A Cross Country Mountain Bike
		Frame
		<sup>1</sup> Kausalyah V., <sup>2</sup> Zulhilmi Shah, <sup>3</sup> Shasthri S.
		<sup>1,2</sup> Faculty of Mechanical Engineering, Universiti Teknologi MARA, 40450 Shah
		Alam, Malaysia <sup>3</sup> School of Engineering and Physical Sciences, Heriott Watt University Malaysia, Putrajaya, Malaysia
		<b>Abstract:</b> Bicycles continue to be a popular two wheeler mode of transportation even in the current era due to its nature in being environmental and entertainment friendly. This research in particular is conducted to study and analyze the structural stability of the cross country mountain bike frame with different rider loadings and materials. Three types of rider mass will be studied here, 60kg, 100kg and 150 kg, each representing the common, medium and higher extreme weight range of user. The load will be distributed in several percentage break ups on the seat, paddle and handle as described in the paper. The mountain bike frames structural performance is also evaluated with three different materials applied, namely titanium, aluminum and carbon fiber. The structure consisting of a standard diamond-shape cross-country frame will be designed in a CAD modeling software, CATIA and pre-processed and post- processed in Finite Element simulation software, ANSYS. Analysis results from the numerical analysis are recorded in terms of stress plots, displacements and natural frequency values and mode shapes. Design optimization is performed on the regions indicating high stress plots to reduce the stress concentration and enhance the structural stability of the frame.
20	025-kul	Optimized design is validated again through numerical analysis.Deviated from Welfare State Concept: Policymakers should
		reformed its Social Protection
		Noor Ashikin Mohd Rom <sup>1</sup> , Mohamad Lusfi Yaakob <sup>2</sup> , Nurbani Md Hassan <sup>3</sup>
		<sup>1,2, 3</sup> Faculty of Management, Multimedia University, 63100 Cyberjaya, Selangor, Malaysia
		<b>Abstract:</b> Rapidly increase of food price, houses, transportation costs and other basic expenses in consecutive years, Malaysian citizens have endured their life for such a long time. The objective of the study is to investigate the vulnerability faced by the low income earners in their life. The outcome of the study is to extend the social protection to the low income earners towards achieving the concept of welfare state. This is a qualitative method of study and the interviews were conducted in Klang, Selangor, Malaysia. Data was collected from the low income participants with different background of economic activities. Findings reveal that participants having difficulties in settling their medical expenses, lack of transportation facilities that made them immobility

		and suffering high cost of living. By tightened up the policies towards welfare state concept, government could ensure the citizens relish the wealth of the country and restore economic resilience of the citizens.
21	026-kul	Identification of Dorsal and Ventral Surface of Rubber Seed using Image Processing and Machine Learning Approach
		<b>S. N. 'Afiah Mohd Johari,</b> S. Khairunniza-Bejo*, W. Ishak Wan Ismail
		Department of Biological and Agricultural Engineering, Faculty of Engineering, Universiti Putra Malaysia, 43400 Serdang, Selangor, MALAYSIA
22	002-amestic	Abstract: Natural rubber tree is one of major plantation crops in Malaysia. To increase the production and germination of the rubber, proper placement of seeds is needed. Ventral surface of rubber seed needs to be placed downward attached to the soil. Nowadays, it is necessary to use an automatic detection technology in order to reduce labor intensity and improve the production efficiency. Therefore, this study was conducted to identify the dorsal and ventral surface of rubber seeds using image processing and machine learning approach. Canny edge detection was used to identify features at the center of the seed namely maximum length of detected edge, ratio major and minor axis, number of pixel, maximum convolution and number of intersection. These features were used as the input parameters in classifying the dorsal and ventral surface at horizontal positions. A new prediction model was developed for identification of the dorsal and ventral surface. Support Vector Machine (SVM) and Artificial Neural Network (ANN) were also used for the classification. Based on the results, a new prediction model gave the best percentage of classification with 83.5% successful compared to ANN (67.9%) and SVM (61.5%). <b>Two-dimensional simulation of diffusion and advection effects in</b>
		enzymatic hydrolysis of cellulose
		Norazaliza Mohd Jamil <sup>1</sup> , Qi Wang <sup>2</sup>
		<sup>1</sup> Faculty of Industrial Sciences & Technology, Universiti Malaysia Pahang, Lebuhraya Tun Razak, 26300 Gambang, Kuantan, Pahang, Malaysia. norazaliza@ump.edu.my <sup>2</sup> Department of Mathematics, University of South Carolina, Columbia, South Carolina, 29208, USA. <u>qwang@math.sc.edu</u>
		<b>Abstract</b> —Enzymatic hydrolysis process to transform lignocellulosic cellulose into sugar in a bioreactor tank involves different controlling factors such as advection, diffusion and fragmentation of cellulose chains. Although it has been observed experimentally that enzymatic hydrolysis is strongly influenced by the environmental effects in a tank, these effects have not been adequately quantified. In this work, a current kinetic model for enzymatic hydrolysis of cellulose was extended by coupling the population balance equations (PBE) with advection and diffusion terms to model the spatial evolution of the system. The mathematical model was solved using the DAE-QMOM technique. The



23	004- amestic	<ul> <li>aim of this study was to simulate the effect of diffusion and advection on the fragmentation of cellulose chains during enzymatic hydrolysis in two-dimensional domain. This study demonstrated the applicability and usefulness of a commercial software (COMSOL Multiphysics) for finding the solution of PBE-advection-diffusion in cellulosic hydrolysis problem.</li> <li>The key implication of this work is that advection is a significant phenomenon which could increase the number of cellulose particles.</li> <li>Also, diffusion alone cannot increase hydrolysis rate, but the combination of advection and diffusion increases hydrolysis rate.</li> <li>Comparison of Information Criterion on Identification of Discrete-</li> </ul>
23	004- amesuc	Time Dynamic System
		Thie Dynamic System
		Abd Rahman Mohd Nasir <sup>1</sup> , Md Fahmi Abd Samad <sup>2</sup>
		Faculty of Mechanical Engineering, Universiti Teknikal Malaysia Melaka, 76100 Durian Tunggal, Malacca, Malaysia <sup>1</sup> abdrahmanbinmohdnasir@gmail.com <sup>2</sup> mdfahmi@utem.edu.my
24	007- amestic	Abstract— Information criterion is an important factor for model structure selection in system identification. It is used to determine the optimality of a particular model structure with the aim of selecting an adequate model. A good information criterion not only evaluates predictive accuracy but also the parsimony of model. There are many information criterions that are widely used such as Akaike information criterion (AIC), corrected Akaike information criterion (AICc) and Bayesian information criterion (BIC). Another information criterion suggesting use of logarithmic penalty, named as Parameter magnitude- based information criterion (PMIC) was also introduced. This paper presents a study on comparison between AIC, AICc, BIC and PMIC in selecting the correct model structure for simulated models. This shall be tested using computational software on a number of simulated systems in the form of discrete-time models of various lag orders and number of term/variables. As a conclusion, PMIC performed in optimum model structure selection better than AIC, AICc and BIC. <b>Modelling The Relationship Between Malaysia Exchange Rate and</b>
24	007- amestic	Sectoral Stock Market Indices
		Mohd Tahir Ismail, Lee Siew Yong, Lim Ying Ming
		School of Mathematical Sciences, Universiti Sains Malaysia, Penang, Malaysia.
		Email: <u>m.tahir@usm.my</u>
		<b>Abstract</b> — This study investigates the relationship between MYR/USD
		exchange rate and 10 sectoral stock markets indices after the pegging period which is starting from August 2005 to December 2015. The
		Vector Autoregressive or Vector Error Correction Model (VAR/VECM)
		framework is used in this study, nonetheless unit root tests (ADF and
		KPSS) as well as cointegration test will be implemented before using
		VAR/VECM framework. Since there are long-run relationship between
		the significant sectoral markets which have been chosen from

25 009- ai	······································
	Adrenal Axis validation with MATLAB simulation
	Sanam Ayub <sup>1</sup> , Qadir Bakhsh <sup>2</sup>
	<sup>1</sup> Riphah International University, Islamabad, Pakistan <sup>2</sup> Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah Pakistan
	sanumay ub @gmailcom, qadirquest @gmailcom
	<b>Abstract:</b> The hypothalamic Pituitary Adrenal (HPA) system operates as complex feedforward and feed-back control system whose main purpose is to regulate wide variety of bodily processes, under basal physiological conditions or during stress, by regulating the plasma levels of corticosteroids secreted from adrenal glands. The Hypothalamic Pituitary Adrenal (HPA) axis is a biological system connecting three areas in the body by mainly three hormones, CorticotrophinReleasing Hormone (CRH), AdrenoCorticotrophin (ACTH), and Cortisol The HPA Axis was simulated using non-linear equations modeled for important phenomena andthe Euler and RK-4 <sup>th</sup> order methods were also used. By using the Simulink, non-linear equations were also solved and it was concluded that the results are useful for a simulation of resilience in human.
26 011-ar	
	Bakeel Maqhat, Mohd Dani Baba, Ruhani Ab Rahman and Anwar Saif
	Centre for Computer Engineering Studies, Faculty of Electrical Engineering, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia
	Abstract: The tremendous increase in user demands for multimedia applications with its various quality of service (QoS) requirements has become essential for the operators to accommodate the demand for real-time services in IEEE 802.11 WLAN network. Scheduling mechanism is one of the challenging issues still open for research to fully support the various QoS requirements. In this paper, scheduling scheme is proposed to manage the channel access parameter between competitive nodes. An embedded fuzzy expert system is used to dynamically allocation these parameters to the competitive stations. The simulation results show that the proposed algorithm manages to optimize the overall system utilization.
27 012-ar	nestic Investigated Performance of Davidson Model for DVB-T2 Propagation in medium and small Urban Area

		Pitak Keawbunsog, Pitchaya Supannakoon, Sathaporn Promwong
		Dept. of Telecommunication Engineering, Faculty of Engineering, King Mongkut's Institute of Technology Ladkrabang. 1 Chalongkrung Rd, Ladkrabang, Bangkok, Thailand 10520. Email : <u>pitak k1@hotmail.com</u>
		<b>Abstract:</b> This article investigates the efficiency of Davidson Path Loss Model in order to apply for use in the DVB-T2 propagation network design for medium and small urban areas in southern Thailand. The data being collected from the electric field strength while broadcasting of two channels within urban areas of Hadyai, Songkla Province are used for the path loss analysis. The result through a comparison on the efficiency of an old Davidson model and a calibrated Root Mean Square Error (RMSE) model along with an efficiency index of Relative Error (RE) shows that the old Davidson model is closer to the measured data than the calibrated ones. The statistics also demonstrates that the RE of the old Davidson model is at the least when being compared with the RE of both the calibrated and the Hata models. The old Davidson model is, therefore, the most accurate and the most optimized for the design of the propagation network.
28	013-amestic	Prediction Model for Broadcasting Propagation in Urban Area
		Pitak Keawbunsong, Pitchaya Supannakoon, Sathaporn Promwong
		Dept. of Telecommunication Engineering, Faculty of Engineering, King Mongkut's Institute of Technology Ladkrabang. 1 Chalongkrung Rd, Ladkrabang, Bangkok, Thailand 10520. Email : <u>pitak_k1@hotmail.com</u>
		<b>Abstract:</b> This paper proposes an optimization of the path loss propagation model for prediction digital terrestrial television broadcasting in urban area southern of Thailand. The measurement areas are considered both Songkla and Surathani provinces that we conducted the data collection of the received signal radio broadcasting in 4 channels (510 MHz to 790 MHz). The optimization of the path loss propagation model is based on least square (LS) method. The statistical results such Hata path loss model is optimized as a comparison with others model. We confirm that the proposed method provides for a data processing suitably in a prediction path loss model.
29	014-amestic	Ontology-based Semantic representation for arabic text data
		Mamdouh Farouk
		Computer Science Dept., Assiut University, Assiut, Egypt (E-mail: <u>mamdouh@fci.au.edu.eg</u> )
		<b>Abstract:</b> The explosion of information available on the Internet motivates researchers to semantically manipulate these information to enable Internet users to find what they actually need easily. One of the important pillars to manipulate data semantically is ontology. Arabic

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		ontology is recently gains a lot of attention. This paper survey some available arabic ontologies and compares between these ontologies to clarify the difference between the main categories of arabic ontologies. Ontology creation approach and representation method is considered in this study.
30	015-amestic	The Factor Affecting Malaysian Citizens Satisfaction With Open
		Government Data
		<b>Mohammed Shihab Ahmed*1,</b> Dr. Massudi bin Mahmuddin <sup>2</sup> Dr. Nor Idayu binti Mahat <sup>3</sup> .
		Universiti Utara Malaysia, Sintok 06010 Kedah, Malaysia.
		Abstract:Open data can be traced to various initiatives like freedom of information, transparency and participation, data exchange, reuse of public sector information, open access, open source and open government. This paper suggests a different approach in assessing the variables of Citizens Satisfaction in open government data in malaysia. Based on a thoroughly researched secondary data, this conceptual paper suggests a framework integrating the so far incoherent frameworks as proposed by previous authors. Emanating from this eclectic and chronological literature review, the paper will also propose further missing links that need to be included in the proposed integrated framework. Based on this holistic framework, in a future study, the authors will explain a sustainability index of Citizens Satisfaction in open data, which will be tested empirically in the study. In fact, from the proposed integrated framework, in total five vital factors/aspects of open government data issues are likely to have an impact on Malaysian Citizens Satisfaction. user behavioural intention
31	001 istnag	variables will play an intervening or mediating role in the framework. ENTREPRENEURSHIP EDUCATION AT INSTITUTIONS OF HIGHER
51	001-ictpag	LEARNING: RECOMMENDATIONS OF ACADEMICS AND STUDENTS
		IN MALAYSIA
		Zaimah Zainol Ariffin <sup>1*</sup> , Natrah Saad <sup>2</sup>
		<sup>1,2</sup> Universiti Utara Malaysia
		<b>Abstract</b> - This study examines the academic behavior and students' perspective of public universities in entrepreneurship education programs in Malaysia. In order to gauge the perceptions of academics, questionnaires were distributed to academics of three (3) public universities. The first set of questionnaires gathered information on academic behavior from 43 lecturers who taught entrepreneurship courses. The results suggest that perceived desirability, attitude and university climate have significant correlation with the entrepreneurship education behavior of faculty. In order to obtain students' perceptions, another set of questionnaires was gathered from 362 undergraduate students enrolled in entrepreneurship program. The analysis suggests that students are generally content with desirability and behavioral intention factors. The findings together with the

		recommendations forwarded are expected to provide significant input
		to public universities on their current entrepreneurship education programs and the efforts necessary to be undertaken in order to
		promote entrepreneurship skills among graduates.
32	003-ictpag	"F" character experiment: simulation test on audit and inspection concept effectiveness and efficiency
		Kang Eng Thye <sup>1</sup> , Kang Chye Mei <sup>2</sup>
		<sup>1</sup> Universiti Utara Malaysia, <u>kang1178@uum.edu.my</u> <sup>2</sup> Universiti Tunku Abdul Rahman, <u>kangcm@utar.edu.my</u>
		<b>Abstract</b> - Audit or inspection concept is applied broadly across all disciplines. Its effectiveness and efficiency to some extent is unknown to the public. This article reveals the reality of audit or inspection that might not really reflect its desired goals. A simple experiment was conducted with local university students to calculate the number of "F" characters contained in a defined paragraph. The result showed only 7.2% of the university students could calculate correctly the number of "F" characters despite being well trained, as compared to primary and secondary level students. This implies that relying on audit and inspection alone to improve any discipline quality performance is insufficient. Only "new knowledge" can be generated through continual improvement effort searching for unknown variables instead of passive audit or inspection that only deals with known "information" variables.
33	004-ictpag	GENDER DIFFERENCES IN 'BLOGGING' TOURISM ACTIVITIES: A NETNOGRAPHY OF TRAVELERS ON PENANG ISLAND, MALAYSIA
		Farah Syazwani Hayrol Aziz* and Nor Hafizah Selamat
		C02, Centre for Research on Women and Gender (KANITA), Universiti Sains Malaysia (USM), Penang, Malaysia
		<b>Abstract</b> - Travel experience has been enriched especially with the rise of technology among travelers. There are many medium available online to express the travelers' experiences while they were in their vacation. It

24	007 istrac	five male and female travelers to Penang were selected for this study. The results revealed two major findings that there are gender differences in terms of what the female and male tourists' blogged about. While female bloggers tend to focus on features of food and landscape, male bloggers were mostly blog about their reviews of places they visited. Thus, the findings may provide useful information for local tourism industry, especially in transforming the whole experience of holiday with the presence of such advance technology.
34	007-ictpag	JUVENILES AND THEIR PARENTS: NARRATIVES OF MALE & FEMALE ADOLESCENTS IN REHABILITATION CENTRES
		Haja Mydin Bin Abdul Kuthoos* and Noraida Endut
		*Corresponding author: Haja Mydin Bin Abdul Kuthoos (PhD Student) Email address: hajamydinusm@gmail.com C02, Centre for Research on Women and Gender (KANITA), Universiti Sains Malaysia (USM), Penang, Malaysia
		<b>Abstract</b> - A number of studies, internationally, have established a relationship between family structures and environment with juvenile delinquency (Harper and McLanahan, 1998; Larson, Swyers and Larson, 1995; Anderson, 2002). Not many studies have been conducted in Malaysia to link juvenile delinquency with the context of juveniles' families, especially of their parents or people assuming the role of their parents. This paper is an early attempt at understanding the experiences of juveniles with their parents in order to explore the relationship between their experiences and their involvement in crime or juvenile behaviour. For this purpose, a qualitative research approach was adopted by conducting in-depth interviews with seven (7) male juvenile offenders from a rehabilitation centre in Redah, Malaysia. The interviews provide an insight into the male and female juveniles' personal feelings about their experiences and relationships with their parents or persons whom they identify as people have parental guardianship over them. The study finds that adolescents who are involved in delinquencies expressed much unhappiness with their parents due to reasons such as their parents having divorced, not receiving love from their parents, feeling uncared by their parents and families, having strained relationships with their family and experiencing violence from their parents and/ or family. The narratives of the juveniles are hoped to be able to inform us about specific areas to explore further in understanding the criming and delinquent behaviour of juveniles.