S N C

SECIT-2018

International Conference on Innovative Practices in Science Engineering, Computer and Information Technology

Venue: Hotel Mystays Ochanomizu Conference Center

Tokyo, Japan

Date: August 25-26, 2018



CONFERENCE BOOK OF ABSTRACT PROCEEDINGS

Consortium-ET

Consortium of Engineering & Technology



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Book of Abstracts Proceedings

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Proceedings of the International Conference on Innovative Practices in Science Engineering, Computer and Information Technology (SECIT)

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Venue: Hotel Mystays Ochanomizu Conference Center Tokyo, Japan

Conference Theme: An effective platform to meet other renowned experts in the filed of engineering and technology.



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CONFERENCE TRACKS

- Computer and Software Engineering
- Mechanical & Metallurgical Engineering
- Electrical & Electronics Engineering
- Civil Engineering
- Bio-Technology & Food Technology
- Chemistry & Chemical Engineering
- Physical, Applied and Life Sciences
- Interdisciplinary



CONFERENCE CHAIR MESSAGE

Michael Sasaoka

"International Conference of Consortium of Engineering & Technology" is a platform that thrives to support the worldwide scholarly community to analyze the role played by the multidisciplinary innovations for the betterment of human societies. It also encourages academicians, practitioners, scientists, and scholars from various disciplines to come together and share their ideas about how they can make all the disciplines interact in an innovative way and to sort out the way to minimize the effect of challenges faced by the society. All the research work presented in this conference is truly exceptional, promising, and effective. These researches are designed to target the challenges that are faced by various sub-domains of the social sciences and applied sciences. I would like to thank our honorable scientific and review committee for giving their precious time to the review process covering the papers presented in this conference. I am also highly obliged to the participants for being a part of our efforts to promote knowledge sharing and learning. We as scholars make an integral part of the leading educated class of the society that is responsible for benefitting the society with their knowledge. Let's get over all sorts of discrimination and take a look at the wider picture. Let's work

together for the welfare of humanity for making the world a harmonious place to live

and making it flourish in every aspect. Stay blessed.

Thank you.

Michael Sasaoka

Conference Chair

Email: contact@consortium-et.com



DATE: August 25-26, 2018 LOCATION: Hotel Mystays Ochanomizu Conference Center

DAY: Saturday-Sunday

Event Title: International Conference on Innovative Practices in Science Engineering, Computer and Information Technology SECIT-2018

Start Time

09:00 am 09:10 am: Registration & Kit Distribution
09:10 am 09:20 am: Introduction of Participants
09:20 am 09:30 am: Inauguration and Opening address
09:30 am 09:40 am: Grand Networking Session

Tea/Coffee Break (09:40-10:00 am)



DATE: August 25-26, 2018 LOCATION: Hotel Mystays Ochanomizu Conference Center

DAY: Saturday-Sunday

Event Title: International Conference on Innovative Practices in Science Engineering, Computer and Information Technology SECIT-2018

Session: 01

10:00 am - 12:30 pm: Presentation Session

Track A: Engineering, Technology & Applied Sciences

Presenter Name Manuscript Title Paper ID

Mohd Shahrir Abd	Invisible Watermarking On Grayscale Image	SECIT-AUG18-101
Rahim		
Nabilah Hasanah	Invisible Watermarking On Grayscale Image	SECIT-AUG18-101C
Binti Shaari		
Chih-Ming Chien	The Practice of Design-Build Programs in Remote Areas in Tai-	SECIT-AUG18-103
	wan	

Track B:Business, Economics, Social Sciences & Humanities

Yue-Yang Chen	Examining the Fit Effect Between Electronic Business Strategy	MRSSM-088-ANI108
	and Information Technology Capabilities	
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Narong koojaroenpr-	An Assesment of Farm to Table Strategy in Thailand	PBAR-AUG-111
asit		
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	vestors: Evidence from the Taiwan Stock Exchange	
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	wan Stock Markets	
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	of the Raute Community in Nepal	

Lunch Time (12:30 pm - 01:30 pm)



DATE: August 25-26, 2018

LOCATION: Hotel Mystays Ochanomizu Conference Center DAY: Saturday-Sunday

Event Title: International Conference on Innovative Practices in Science Engineering, Computer and Information Technology SECIT-2018

Session: 02

01:30 pm 04:00 pm: Presentation Session

Track C: Medical Medicine and Health Study

Presenter Name Manuscript Title Paper ID

101
-101
-102

Track A: Engineering, Technology & Applied Sciences

	<u> </u>	
Wu YunFan	A New Structure of the Typhoon Bogus Wind Tangential Profile	SECIT-AUG18-104
Jitaphat Chaisit &	An Ontology Development for Searching Community Enterprise	SECIT-AUG18-105
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Assoc.Prof.Dr	A Development of Animation Media on ICT in the Topic Arts of	SECIT-AUG18-109
Surapon Boonlue	Thai Boxing	
Kuntida Thamwipat	The Development of Motion Graphics on Social Media Network	SECIT-AUG18-110
	and Printed Media Through or Code Technology to Publicize the	
	Domitory Network of King Mongkuts University of Technology	
	Thonburi	
Pornpapatsorn Prin-	The Development of Viral Video Clips to Publicize a Tv Enter-	SECIT-AUG18-111
chankol	tainment Program on Social Media Network of Momo Broadcas	
	Co.Ltd	
Dr. Paitoon Kantun-	The development of augmented reality media in order to study	SECIT-AUG18-113
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Yunjoo Park	Accelerating the Storage Performance of Cloud Systems with	SECIT-AUG18-117
	NVRAM	

Closing Ceremony (04:00 - 05:00 pm)



ΧV

DATE: August 25-26, 2018 LOCATION: Hotel Mystays Ochanomizu Conference Center

DAY: Saturday-Sunday

Event Title: International Conference on Innovative Practices in Science Engineering, Computer and Information Technology SECIT-2018

Conference Day 02 (August 25, 2018)

Second day of conference will be specified for touristy. Relevant expenses are borne by Individual him/herself.





TRACK A ENGINEERING, TECHNOLOGY & APPLIED SCIENCES

ISBN: 978-623-6562-09-5

Invisible Watermarking on Grayscale Image

 $^{1*}{\rm Mohd}$ Shahrir Abd Rahim, $^2{\rm Nabilah}$ Hasanah Binti Shaari , $^3{\rm Nur}$ Hafizah Binti Ghazali

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Keywords: TVET, Spiral scan technique, Sequence technique, PSNR, NCC.

Digital watermarking is a procedure to embedded watermark or logo into image to avoid copyright and protect the image from being manipulated by others without owner approval. In Technical and Vocational Education and Training (TVET) sector, the main challenge in watermarking is how to achieve high imperceptibility or visual quality and robustness without sacrificing the capacity of the cover image. In addition, the watermark should be able extracted without any distortion. As for that, spiral scan embedding technique is used to overcome this issue. The performance of the propose project is evaluated by comparing the results of extracting process using spiral scan technique with sequence technique, while the imperceptibility of the cover image is measured using Peak Signal Ratio (PSNR) and robustness of the watermarked image is measured using Normalized cross correlation (NCC). Result shows that the proposed technique obtains high imperceptibility and robustness.

The Practice of Design-Build Programs in Remote Areas in Taiwan

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Keywords: Design-build programs, Humanitarian architecture, Collaborative construction, Tacit Knowledge, Asia-Pacific

Under the influence of open-source culture, more and more non-professionals in the Asian-Pacific have begun to engage in activities like space reformation and designbuild programs in recent years. This study analyzed the design-build programs promoted by the Association of Humanitarian Architecture (AHA) in Taiwan in the last four years using participant observation combined with secondary qualitative study and documentation. Then, we used the Collaborative Construction Model established in the previous research for comparison. The objective is to provide international organizations that are planning to enter Asia-Pacific for collaborative construction with a comprehensive recommendation. We found that the participants in the cases built explicit knowledge by reading the construction manuals, and then gained tacit knowledge from the local professionals and vocational-school teachers within subdivided learning and processing lines. The outcome demonstrated that such an approach allowed the participants with different backgrounds to effectively work together, and leveraged the smaller number of on-site professionals. By making good use of the natives tacit knowledge about their environment and local materials for collaborative construction, the participants experienced unexpected results and joys. It is common for Austronesian and the agricultural residents to have constructional skills as their second professional specialty. The use of local professionals tacit knowledge to guide the participants during construction led to the increase of self-confidence and honor in the local professionals. Besides, by combining traditional and modern constructional methods, instead of using the simple construction system utilized in urban areas, the dependency on industrialized products in remote areas could be reduced. products.



A New Structure of the Typhoon Bogus Wind Tangential Profile

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^{1,2,3}National Marine Data and Information Service, China Corresponding Email: yfwu910227@yahoo.com

Keywords: Thehoon, Numerical Simulation, Bogus

Based on the Typhoon Bogus scheme proposed by the Air Force of Weather Agency (AFWA) typhoon Bogus scheme and Jonny CL et al. (1987) provided in the WRF (Weather Research and Forecasting) model, a Bogus scheme that can utilize 50 and 30 knots of wind speed radius information was constructed by Dr. Gao(2005). Dr. Gaos scheme was successfully planted to the WRF model and was improved in this paper. Typhoon No. 9 of 2011 called Muifa was selected as the research object. FNL (Final Operational Global Analysis) reanalysis data provided by the National Center for Environmental Prediction (NECP) was used as the WRF simulation background field, a series of numerical experiments was designed and implemented. The influence of the typhoon wind field structure on the path and intensity of the typhoon in the initial field was analyzed. Further moreattempting to improve the typhoon intensity forecast, 3DVar-DA assimilation of typhoon center pressure single point observations was used in the WRF model. The single-point center pressure assimilation was improved to the simultaneous multi-point assimilation on different vertical layers. Typhoon minimum pressure center location on each -layer(1000 hPa, 900 hPa, 800 hPa, and 700 hPa) of the typhoon Muifa was simulated to the initial field. A series of numerical simulation susceptibility tests were designed and implemented. The result shows that the new Bogus scheme and simultaneous multi-point assimilation on different vertical layers of typhoon center was better.



An Ontology Development for Searching Community Enterprise in Lower North, Thailand

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 ^{1,2}Department of Management Science, Nakhon Sawan Rajabhat University, Thailand, ^{3,4}Department of Science and Technology, Nakhon Sawan Rajabhat University, Thailand, ⁵Department of Agricultural Technology and Industrial Technology, Nakhon Sawan Rajabhat University, Thailand Corresponding Email: naricha.c@nsru.ac.th

Keywords: Community Enterprise, Ontology Models.

This research aimed to develop the ontology models on searching information about community enterprises in the lower northern, Thailand. The research focused on the demand of semantic information of enterprise goods for customers and tourists interesting in buying community enterprise products. The research desired to solve the problem of searching the customers indirect object, who cannot find it from the only source. The research had structural design with Web Ontology Language (OWL) and created a query about SPARQL protocol, which can link effectively any data the same content from multiple sources. The system can query the relevant information to customers based on their requirements. The customer satisfaction on ontological applications was in the levels of highest.



STEM Integration in IoT projects

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Phra Nakhon, Thailand

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Keywords: STEM, IoT, Students.

Students are expected to be equipped for the 21st century, including critical thinking, problem-solving and the ability to bring innovation and competence to the IT sector, but the number of students studying science and technology has been at low level in many countries. With respect to the teaching of the information technology (IT) subject using modern techniques; this research aims to integrate STEM education and the Internet of Things (IoT) into regular lessons for IT undergrad students. The presented results show that the students benefit greatly from STEM, both in classroom and in IoT projects.



A Development of Animation Media on ICT in the Topic Arts of Thai Boxing

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Keywords: Animation media / ICT / Arts of Thai boxing

This research aimed to 1) develop and evaluate the quality of animation media on ICT in the topic Thai Boxing, 2) study the learning achievement of learners from animation media on ICT by comparing pretest and posttest, 3) evaluate the satisfaction of learners animation media on ICT in the topic Arts of Thai Boxing The 70 samples were people who were interested in Thai boxing that posted in Facebook webpage named Arts of Thai Boxing, derived from accidental sampling. The samples were also selected from people who pressed Like on webpage, answered the questionnaire, and downloaded the Muay Thai Art application. The research findings on quality evaluation were that the quality of animation media on content was at the level of very good (mean = 4.57, S.D. = 0.16), the quality of animation media on media and presentation was at the level of very good (mean = 4.60, S.D. = 0.13) as well. The comparison of learning achievement found that the posttest score was significantly higher than pretest score at the level of .05 (t = 18.47*) The evaluation on satisfaction of learners from animation media on ICT in the topic Arts of Thai Boxing was at the level of much (mean = 4.45, S.D. = 0.24).



The Development of Motion Graphics On Social Media Network and Printed Media Through QR Code Technology to Publicize the DOMITORY Network of King Mongkuts University of Technology Thonburi

^{1*}Kuntida Thamwipat , ²somsak Jatupornpong , ³nuttha Sripirom , ⁴panadda Sohsawaeng , ⁵pimsiri Kanyarat , ⁶sasithorn Tubphum ^{1,2,3,4,5,6}King Mongkuts University of Technology Thonburi, Bangkok, Thailand Corresponding Email: kuntida.tha@kmutt.ac.th

Keywords: Motion Graphics, Printed Media, QR Code Technology

This research was aimed to survey the demands of the sampling group, to develop and to evaluate the quality of the motion graphics and printed media, to study the perception of the sampling group and to evaluate the satisfaction of the sampling group towards the developed motion graphics on social media network and printed media through QR code technology to publicize the dormitory network of King Mongkuts University of Technology Thonburi (KMUTT). The research tools consisted of 1) the survey questionnaire, 2) the motion graphics on social media network and printed media through QR code technology to publicize dormitory network of KMUTT, 3) the quality evaluation forms for contents and media presentation, 4) the perception questionnaire, 5) the satisfaction questionnaire. The sampling group in this study consisted of 50 first-year students from the Department of Educational Communications and Technology, Faculty of Industrial Education and Technology, KMUTT. They were chosen using purposive sampling method out of those who enrolled in the course ETM 112 VERBAL THAI LANGUAGE FOR COMMUNICATIONS in the second semester of the academic year 2017 and those who were willing to fill out the questionnaires. The research results show that the majority of the respondents rated their demand for the motion graphics and printed media to publicize the dormitory network of KMUTT at a high level (60 per cent). Regarding the contents, the respondents rated general information about the background and the significance of the dormitory network as the top priority (60 per cent). They chose cool color tones (82 per cent). They preferred simple graphics (62 per cent) and they preferred to have voice narration with the media (68 per cent). The researchers developed the motion graphics in accordance with the survey results on social media network and printed media through QR code technology to publicize the dormitory network of KMUTT. Continued......



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Continued......

The quality of the motion graphics as evaluated by the panel of experts shows that the quality of the contents was at a very good level (x = 4.74, S.D.=0.21) and the quality of the media presentation was at a very good level (x = 4.75, S.D.=0.28). The perception level of the sampling group was at a high level (x = 3.85, S.D.=0.84). The sampling group expressed a high level of satisfaction (x = 4.35, S.D.=0.67). Therefore, the developed motion graphics on social media network and printed media through QR code technology to publicize the dormitory network of KMUTT could be used.



ISBN: 978-623-6562-09-5

The Development of Viral Video Clips to Publicize A TV Entertainment Program on Social Media Network of MOMO BROADCAS CO.LTD.

^{1*} Pornpapatsorn Princhankol ,² Somsak Jatupornpong , ³ Neeranch Peekaew ,⁴Pattareeya Rodsawaeng
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Keywords: Viral Video Clips TV Entertainment Program, Social Media Network.

This research was aimed 1) to develop viral video clips to publicize TV entertainment programs on social media network of Mono Broadcast Co., Ltd., 2) to evaluate the quality, 3) to evaluate the perception, and 4) to examine the satisfaction of the sampling group. The tools in this study consisted of quality evaluation forms for contents and media presentation, perception evaluation form, and satisfaction questionnaire. The sampling group in this study consisted of 30 people who clicked Like on the Facebook Fan Page of 29 Behind the Scenes program. They were chosen using purposive sampling method out of 200 people in April 2018. There were 6 experts for contents and media presentation. The statistical tools in this study were mean score and standard deviation. The research results show that the quality of the contents was at a good level (x =4.00, S.D.=0.13) and the quality of the media presentation was at a good level (x =4.22, S.D.=0.47). The perception level of the sampling group was at a high level (x =3.63, S.D.=0.92). The sampling group expressed a high level of satisfaction (x =4.07, S.D.=0.66). Therefore, the viral video clips to publicize a TV entertainment program on social media network of Mono Broadcast Co., Ltd. could be used effectively.

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The Development of Augmented Reality Media in Order to Study the Satisfaction of Mother Before Giving Birth

^{1*}Dr. Paitoon Kantunyaluk, ²Asst. Prof. Dr. Surapon Boonlue ³Miss Thitisorn Thaweesak ⁴Miss Junyamon Maneerattanasopone, ⁵Miss Jiraporn Pansomrej ^{1,2,3,4,5}Departments of Educational Communications and Technology, Faculty of Industrial Education and Technology, KMUTT, Bangkok, Thailand Corresponding Email: Paitoon.Kan@kmutt.ac.th

Keywords: Augmented Reality Media / Mother Before Giving Birth.

The purposes of this research were 1) to study quality of augmented reality media in order to study the satisfaction of mother before giving birth, 2) to study the satisfaction of used to augmented reality media in order to study the satisfaction of mother before giving birth, Research sample were 30 pregnant is mother purposive sampling technique. The Instrument used for gather the data were the rating scale. The Statistics used for analyzing the data were Average and standard deviation. The research finding quality content and media in the level is very good (Average is equal to 4.64 and the standard deviation is equal to the 0.04) and Satisfaction is in the most (Average is equal to 4.65 and the standard deviation is equal to the 0.17) When compared to the criteria specified by the found that is very good and the conclusion that The development of augmented reality media in order to study the satisfaction of mother before giving birth, Choose a method of pregnant is mother. Can be used in a public relations that is based on the assumption that set.



Design of Learning Management Using Engineering Design Process and Micro: Bit Simulation to Enhance Problem-Solving Skill for Pre-cadet Students

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Education and Technology, KMUTT, Bangkok, Thailand
Corresponding Email: sorakrich.man@kmutt.ac.th

Keywords: Engineering Design Process, Micro: Bit Simulation, Problem - Solving Skill.

This research aimed to design learning management using engineering design process to enhance problem-solving skill for pre-cadet students, and to evaluate content validity ratio of learning management designed. The researcher used TPACK Model as a core to synthesize the learning management composed of 3 components; Engineering Design Process as pedagogy for driving learning management, 2) Computer Programing as content for stimulating problem-solving skill in learning management, and 3) Micro: Bit Simulation as technology for learning management. The research was revealed that learning management using engineering design process to enhance problem-solving skill for pre-cadet students composed of 5 steps; 1) Define the problem or the requirements, 2) Brainstorming gather information to find the way to solve the problem or meet the requirements, 3) Design and Plan to Implementation, 4) Test operation, and 5) Evaluation of Operations. The evaluation on content validity ratio was at the level of high (CVR = 1.00) that referred the feasibility to apply Engineering Design Process, Micro: Bit Simulation, and Computer Programing for learning management to enhance problem-solving skill for the students.



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Random Oversampling and Decision Tree based Classification Models for Imbalanced Dataset of Brain Epileptic EEG

^{1*}Prof. Meng-Hsiun Tsai, ²Jimmy Ming-Tai Wu, ³Hsiang-Chun Chen, ⁴Chia-Te Hsu, ⁵Hsien-Chung Huang, ⁶An-Yuan Chu 1,3,4,5,6 National Chung Hsing University, Taiwan, 2 Shandong University of Science and Technology, China

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Keywords: Epilepsy, Electroencephalogram, Fast Fourier transform, Decision tree, Random Oversampling.

Epilepsy is a chronic neurological disease induced by abnormal electrical discharges of brain which tends to irregular seizures. The seizures may cause the patients to lose consciousness and the patients couldnt control their muscles. Epilepsy even possibly endangers ones life. Electroencephalogram (EEG) is a common tool used in the clinical diagnosis and analytics of epilepsy. However, the visual examination of EEG is time-consuming and the diagnostic result is also easily influenced by the viewers subjective judgement. Therefore, the purpose of this study is to construct an automatic classifier, which could be helpful to analyze, for the epileptic EEG signals. The EEG recordings of patients with intractable epilepsy, which are collected by Boston Childrens Hospital, are used in this study. The features of EEG signals in time-domain and frequency-domain are extracted from the results of the Fast Fourier Transform. Random oversampling is used to solve data imbalanced problem. Two decision tree algorithms including C4.5 and Chi-Square Automatic Interaction Detector (CHAID) are used to classify the dataset. As a result, the accuracy rates of the proposed classifiers are 95.44% and 99.39%. It might be a clinical assistant tool for doctors to make a more reliable and objective diagnosis.

Indicator Analysis Tool of Smart Technology Capability Based on Industrial Perspective

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Keywords: Smart technology, Smart Technology Capability, Smart Technology Indicator Analysis Tool.

Smart technology has utilized through all kinds of industry fields. Most industry has built its smart technology environment appropriate for its industrial departments. In this environment, the smart technology capability of an industry is very crucial for the efficient industrial activities and for effectively improving the industrial activity performance. A reasonable indicator is necessary for efficiently analyzing an industrial smart technology ability in order to systematically manage and improve its smart technology capability. The developed 16-item indicator scale is verified by reliability analysis and factor analysis based on previous literature. This research provides a 16-item indicator tool that can reasonably analyze an industrial smart technology capability in an entire smart technology perspective.

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Accelerating the Storage Performance of Cloud Systems with NVRAM

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Keywords: Storage, Cloud System, NVRAM, Cloud Application, Storage Accelerator.

High performance NVRAM is anticipated to be used as the storage system accelerator of cloud systems. This paper analyzes how much performance gain can be obtained if we add NVRAM as the storage accelerator of legacy storage systems. Specifically, we present the optimized adoption of NVRAM for the storage accelerator of cloud systems by adding NVRAM to various storage components. Our analysis shows that hot storage traffic does not occur on a single specific storage area, but it is varied significantly for different cloud applications. In particular, journal accesses dominate in database applications, whereas swap accesses dominate in memoryintensive applications. In some applications such as video streaming, file accesses dominate. Based on these observations, we recommend the usage of NVRAM for maximizing the performance gain in cloud storage systems.



TRACK B

BUSINESS, ECONOMICS, SOCIAL SCIENCES AND HUMANITIES



Examining the Fit Effect Between Electronic Business Strategy and Information Technology Capabilities

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Keywords: E-Business, E-Business Strategy, E-Business It Capabilities, Fit, Value Creation.

In the highly global competitive environment, firm is finding ways to adopt advanced information technology (IT) and the Internet-based systems to be as an electronic business (e-Business). In this regard, companies must have the capabilities to integrate their IT functions into operational activities, especially for the e-Business companies that try to link and share their information to support customers and suppliers in the supply chain. So far, a number of studies have examined the fit between business strategy and IT strategy, there has been little attempt to explore the fit relationships between e-Business strategy and IT capabilities, and their fit effects on value creation of e-Business. Consequently, a fit model is then developed to demonstrate their performance implications on e-Business performance (i.e., value creation). The perspective of fit as covariation was used to test the e-Business fit model in order to posit their holistic relationships. We contend that the fit between e-Business strategy and IT capability will contribution to business value creation. According to the empirical data collected from Taiwan, meaningful findings and conclusions will be proposed and discussed.

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Policy Implementation among Indigenous People: A Case Study of the Raute Community in Nepal

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Keywords: Indigenous people, Nepal, Policy, Raut

Policymakers often place relatively low emphases on the protection of indigenous peoples and their knowledge. In many developing countries, the very survival of indigenous peoples is difficult, and they have endured historical injustices as a result of colonization and dispossession of their lands and resources as pointed out in the UN Declaration on the Rights of Indigenous Peoples (2007). According to Nepals 2011 census, the indigenous people are categorized as Adivasi Janajati. The population of indigenous peoples consists of 36 per cent of the total Nepalese population. Although the indigenous people constitute a significant proportion of the population, they have been marginalized by the dominant groups in terms of land, territories, resources, language, culture, customary laws, and political and economic opportunities. Despite the fact that Nepal has ratified ILO Convention No. 169 on Indigenous and Tribal Peoples, the newly promulgated Constitution of 2015 has not enshrined the rights of the indigenous people. It is yet to be seen how this new constitution and national laws respond to the provisions of this ILO Convention. This paper critically reviews the relevant policies that are implemented among indigenous peoples of Nepal and how they impact their lives. The Raute community was selected as the case study to highlight the implications of international law and domestic policies. In particular, this study examines how policies have affected the livelihoods of the Raute community.

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Effect of Construction Policy and Legislation in Malaysia, Indonesia And Singapore on Affordable Housing

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Keywords: Housing Policy, Affordable Housing, South East Asia, Public Housing

Issues and challenges relating to affordable housing are complex and multifaceted, to say the least. According to the United Nations Centre for Human Settlement-UN Habitat, there is disparity in housing provision between countries and grave shelter problems that needs global responsibility and global commitment to effectively address. Similarly, in the 11th Malaysia Plan, main challenges in the provision of housing in Malaysia were identified as mismatch demand and supply chain, escalating housing prices in urban areas, lack of integrated planning and implementation, poor maintenance of public housing and insufficient amenities. Governments of different countries implement various national practices in housing programmes to support lower income communities to facilitate public housing development plans for each country. Housing programs were undertaken either by public or private sectors, further developed with communal and recreational facilities as proactive measures in regards of social needs and economic contribution. This paper evaluates the progress of housing programmes and policy in selected Southeast Asian countries, to mainly review its effect on construction costs. The differences and similarities between three Southeast Asian countries are explored and analytically interpreted to contribute to the development of the comparative study of housing policy. The challenge is to fill the gap between housing systems adding more optimal management of housing.



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"My Home Dot Com: A House Affordability Tool

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Keywords: Affordable, Housing Affordability, Homeownership, House Price, House-Buyers

Having a house has always been part of everyones dream. However, not everyone can afford to own a house due to the issue of discrepancy between the price of affordable houses and the income earned. This study aims to develop an interactive web-based application that capable to estimate how much households can afford to buy a house, given a certain personal financial condition. This application will also provide the users information about potential locations. The tool was developed through a desktop study, integrating the affordability formula and houses database. For now, the application is limited to Klang Valley area. This application is beneficial to help the new house-buyers to assess their ability to own a house, based on their income and expenses. In addition, this web-based application is also very useful for financial institutions and property developers in analysing the trend of potential house-buyers.



Exploring Indigenous Traits of Chinese Knowledge Workers

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Keywords: Trait, Knowledge Worker, Knowledge Management, Culture, Asia, China

This is a short article elaborating on a proposal research idea to explore the indigenous traits of knowledge workers in Asian contexts such as China. The motivation behind the proposed research is that the traditional values associated with knowledge workers such as autonomy and empowerment proposed by western scholars seem to be in doubt in Asian contexts where obedience and respect for power are the prevalent values. Echoing other studies that have found indigenous models for Chinese workers, we postulate that there is a need for indigenous knowledge management model for Chinese knowledge workers. We are proposing to develop such a model through a two-phase study design. Contributions in both research and teaching will be resulted upon the completion of the proposed research.



An Assesment of Farm to Table Strategy in Thailand

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Keywords: Thailand, Food Safety, Strategy.

The purpose of this study is to evaluate the food safety strategy in Thailand. This study used primary and secondary data. Primary data was collected from durian farmers by using questionnaires, in-dept-interviews and observations. Secondary data was obtained from the Ministry of Agricultural and Cooperatives (MOAC). The study found that most of durian farmers graduated from primary school. They received the standard durian farm training program from the Department of Agriculture (DOA). The efficiency and effectiveness of the MOAC's food safety strategy implementation in the future should consider training government officers for operation skills and updated knowledge which congruent with uncertain environment under the food safety policy. Additionally, government agencies should support durian farmers for making their product differentiation. They can also act as intermediaries to promote price differences. Therefore, Thailand will reach the goal of "The Kitchen of the World".

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The Information Transmission of the Different Types of Investors: Evidence from the Taiwan Stock Exchange

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Keywords: Information Transmission, Institutional Investors, Individual Investors

This study examines the difference of the information transmission between institutional investors and the individual investors for the Taiwan Stock Exchange, and investigates the impact of transparency on information transmission for the two types of investors. The empirical results indicate that private information is the major factor which causes the trading-time return variances are higher than non-trading-time return variances. The finding also displays that the return variances of individual investors are higher than those of institutional investors in trading-time period. Moreover, the influence of institutional investors on price volatility principally comes from buyer. The influence of individual investors on price volatility comes from both buyers and sellers, and sellers contain more noise information. We also find that institutional investors prefer to defer private information to next non-trading-time period. However, individual investors prefer to disclose private information during trading-time period. Finally, the influence of private information on price volatility and noise on open price decrease significantly for the institutional investors following enhanced transparency. Oppositely, the influence of private information on price volatility increase significantly for individual investors following enhanced transparency.

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The Examination of Socially Responsible Investment on the Taiwan Stock Markets

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Keywords: Socially Responsible Investment; Carhart Model, Stochastic Dominance

This study examines the relationship between socially responsible investment (SRI) and portfolio performance on the Taiwan stock markets. The firms, received awards from the famous CommonWealth Magazine in Taiwan, are used to be our sample firms and the study period is from 2007 to 2015. A significant alpha for SSI portfolio is found with four-factor Carhart model, a risk-adjusted model. The performance of SSR portfolio also significantly dominates that of market portfolio with stochastic dominance test, an omitted risk-adjusted model. In addition, the results appear to be similar with two different models to test the robustness. An important implication of our results is that investors can earn the high or abnormal returns by selecting socially responsible firms.

TAudit Partner Independence and Business Affiliation: Evidence from Taiwan

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Keywords: Client Importance, Affiliated Business Groups, Auditor Independence, Audit Partner

Affiliated business groups play important roles in markets, especially emerging markets. Both IAASB and PCAOB have expressed strong concerns about the audit quality of group financial statements. Audit quality is closely related with auditor independence (Tepalagul and Lin 2015). In this study, we examine whether audit partners are more likely to compromise their independence for clients affiliated with business groups. We incorporate the impact of business group in the construction of client importance proxy in order to explore the potential impact of clienteles business group affiliation. Our findings support that there is no evidence on Big N audit partners compromising their independence for economically important clients no matter whether the clients are affiliated or not. However, we find that the previously documented relation between client importance and audit partner independence in non-Big N audit partners rests with business-group-affiliated and unlisted clients. Therefore, we conclude that non-Big N audit partners tend to compromise their independence for economically important clients who are within affiliated business groups and not listed in stock exchanges.

Fine Dust Policy Agenda Setting Using Topic-Modeling Methodology

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Keywords: Air pollution, Fine dust, Policy agenda setting, Text mining, Topic modeling

Recently, air pollution due to fine dust has become a big social problem in Korea. Therefore, this study aims to identify issues related to fine dust in the news articles using the topic modeling methodology to grasp the problem and present the direction for the future policy agenda setting. In this study, we applied a Latent Dirichlet Allocation methodology, one of the topic modeling techniques. Topic modeling is a methodology used to discover the central theme spread across documents and to detect patterns not only in various document sources but also in genetic data, images and social network data. The Latent Dirichlet Allocation goes through the process of setting the distribution of topics randomly in each document and then randomly including each word in one of the topics. Based on the frequency of concurrent occurrences of words, hidden variables are updated to derive document topics. Analyzed newspapers were searched in searching engine Naver with keywords 'Fine dust'. As a result of the analysis, issues related to Health, China, Government and Seoul, Emissions of fine dusts in vehicles, and Concentration measurement and prediction have appeared. To solve the problem of air pollution, various sectors collaboration is needed. Industry cooperation, technology development, and changes in individuals' lifestyle should play a role, while government policies connect each part organically and present guidelines in advance. However, as a result of the analysis, the scope of policy actors was limited to the government and areas other than Seoul were not discussed. In the future, it is necessary to promote the participation of various actors in the fine dust policy. This study is meaningful in understanding the fine dust related topics that have been revealed in the news articles, pointing out the limitations of the current issues and suggesting directions for the future policy agenda setting.



TRACK C MEDICAL, MEDICINES AND HEALTH SCIENCES



Diabetes Mellitus Patients With General Anesthesia Are Associated With An Increased Risk Of Surgical Site Infection After Surgery Compared To Neuraxial Anesthesia: A Population-Based Study

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Keywords: Diabetes Mellitus, General Anesthesia, Neuraxial Anesthesia, Surgical Site Infection

Diabetes mellitus (DM) is one crucial risk factor of surgical site infection (SSI). Previous data highlighted that anesthetic modes may exert significant impacts on the risk of SSI within 30 days after surgery. However, impacts of different anesthetic modes on SSI within 30 days after surgery in DM patients remain un-studied. To elucidate further, we thus conducted this population-based study using data from LHID2010, a database includes medical claims data and registration files for 1 million enrollees randomly selected from approximate 24 million registry for beneficiaries of Taiwans National Health Insurance program. DM patients who had received general anesthesia (the GA group) or neuraxial anesthesia (i.e., spinal or epidural anesthesia; the NA group) for surgery between January 2000 and December 2012 were included. Patients with history of DM before anesthesia or age of less than 20 or more than 100 years were excluded. A total of 24829 DM patients (GA: 16889; NA: 7940) were included. Diagnosis of SSI was made based on 5 or 81 International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes. Our data revealed that the GA group had a significantly higher incidence of 30-day SSI than the NA group (5 ICD-9-CM codes: 2.5% vs. 1.8%, P=0.011; 81 ICD-9-CM codes: 3.5% vs. 3.0%, P=0.026). After controlling for the potential confounders, multivariate logistic regression analyses revealed that the risk of 30-day SSI in the GA group was significantly higher than in the NA group (5 ICD-9-CM codes; hazard ratio [HR]=1.70, 95% confidence intervals [CI]=1.38-2.10, P;0.001; 81 ICD-9-CM codes: HR=1.21, 95% CI=1.03-1.43, P=0.020). The trend remains the same after adjusting for the propensity scores. In conclusion, these data demonstrated that DM patients who had received general anesthesia for surgery were associated with an increased risk of SSI within 30 days after surgery compared to those who had received neuraxial anesthesia.



Diabetes Mellitus Is A Strong Predictor For Post-Surgical Neuropathic Pain: A Population-Based Cohort Study

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Keywords: Neuropathic Pain, Surgery, Risk Factor, Diabetes Mellitus

Post-surgical neuropathic pain (PSNP) is observed in herniorrhaphy, mastectomy, amputation or coronary artery bypass grafting (CABG) patients. We elucidated PSNP risk factors using LHID2010, a database includes medical claims data and registration files for 1 million enrollees randomly selected from approximate 24 million registry for beneficiaries of Taiwans National Health Insurance program. Patients undertook the surgery between January 2000 and December 2012 were included. Patients with a history of PSNP before surgery or age of less than 20 or more than 100 years were excluded. A total of 4647 patients (herniorrhaphy: 2564; mastectomy: 803; amputation: 902; CABG: 378) were included. Patients with at least two ambulatory visits for PSNP treatments were identified as the PSNP subjects. Patients without PSNP diagnosis were identified as the non-PSNP subjects. Subjects were tracked from surgery date until the end of 2013 or loss of follow-up. During 1-14 years of follow-up, PSNP incidence in patients undertook herniorrhaphy, mastectomy, amputation and CABG was 4.6%, 6.8%, 15.5% and 18.8%, respectively. After controlling for the potential confounders, multivariate logistic regression analyses revealed that diabetes mellitus was a strong risk factor of PNSP in patients undertook herniorrhaphy [odds ratio (OR)=30.71], mastectomy (OR=29.80), amputation (OR=54.62) and CABG (OR=209.62) (all P_i0.001). In herniorrhaphy patients, PSNP risk factors also included hyperlipidemia, anxiety and use of anti-depressants and opioids (OR=1.81, 3.19, 2.35 and 1.78; all Pi0.05). In mastectomy patients, risk factors also included hyperlipidemia, anxiety and use of antidepressants (OR=3.84, 4.93 and 2.51; all P₁0.05). In amputation patients, risk factors also included hyperlipidemia and use of non-steroid anti-inflammatory drugs and acetaminophen (OR=1.93, 12.49 and 13.05; all Pi0.05). In CABG patients, risk factors also included hyperlipidemia, anxiety and use of anti-depressants (OR=6.06, 4.50 and 3.48; all P₁0.05). Collectively, data from this population-based cohort study highlighted that diabetes mellitus is a strong predictor for PSNP.

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