

International Symposium on RESEARCH IN INNOURTION AND SUSTAINABILITY



http://isoris.org/isoris2019/

INNOVATION for GLOBAL Sustainability

28-29 AUGUST 2019 Mercure Penang Beach Hotel, Penang, Malaysia



Download Program Book with Abstracts

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ORGANISING COMMITTEE

ADVISORS

Datuk Mohd Razali Muhamad, Prof., Ts., Dr, SUSREM-UTeM Massila Kamalrudin, Assoc. Prof., Dr, IS3-UTeM Solichul Hadi Achmad Bakri, Ir, UNIBA

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Seri Rahayu Kamat, Assoc. Prof. Dr, SUSREM-UTeM Suriati Akmal, Dr, IS3-UTeM Supawi Pawenang, Dr, MM, UNIBA

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DEMO & EXHIBITION UNIT

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Professor Dr. Nanna Suryana Herman	(Universiti Teknikal Malaysia Melaka)
Professor Dr. Abdul Azim bin Abdul Ghani	(Universiti Putra Malaysia)
Professor Dr. Ali bin Selamat	(Universiti Teknologi Malaysia)
Professor Dr. Che Hassan bin Che Haron	(Universiti Kebangsaan Malaysia)
Professor Ir. Dr. Sha'ri bin Mohd Yusof	(Universiti Teknologi Malaysia)
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Assoc. Prof. Teruaki Ito	(Okayama University, Japan)
Dr. Betania Kartika	(Universiti Islam Antarabangsa Malaysia)
Dr. Dirk John Pons,	(University of Canterbury, New Zealand) <

Foreword by Vice Chancellor, UTeM

Assalamualaikum Warahmatullahi Wabarakatuh and Salam Sejahtera.

It gives me great pleasure to bid a warm welcome to all delegates, presenters, participants and invited guests to the International Symposium on Research in Innovation and Sustainability 2019 (ISoRIS'19).

This symposium aims at providing an avenue for researchers, academicians as well as professionals from industries, to share knowledge and perspectives on innovation and sustainability. The theme for this year's symposium is "Innovation for Global Sustainability", which positions innovation and sustainability globally. Universiti Teknikal Malaysia Melaka (UTeM) is delighted and honored to host the symposium for the fourth time. Validating our tagline "Always A Pioneer, Always Ahead", UTeM aims to stride ahead in pioneering and trail blazing new initiatives in line with our aspiration to emerge as one of the world's best technical universities.

ISoRIS'19 is the result of coordinated efforts from two research groups representing multidisciplinary research background of Manufacturing Engineering (SUSREM) and Software Engineering (IS3). This conference will provide a platform for researchers, industrial practitioners and students to strengthen and sustain a culture of innovativeness and high impact research in the areas of Engineering, ICT and Social Science.

Conclusively, I would like to thank everyone who has rendered much assistance in ensuring the smooth preparation and success of ISoRIS'19. I am fully confident that this conference will culminate into another fruitful venture. I take this opportunity to wish all participants a successful presentation, discussion and a pleasant meeting of minds.

Thank you.

Professor Dr. Raha Abdul Rahim Vice Chancellor





Assoc. Prof. Dr Seri Rahayu Kamat







Dr Supawi Pawenang

Assalamualaikum Wr. Wb.

To be relevant in the fast changing world, we, as the academicians and industrial practitioners need to be innovative and continuously contribute new discoveries in the fields of engineering, ICT, management, social and economic. Considering the increasingly concerns for global sustainability, it is timely for us to contribute our innovations for sustainable development. These two agenda are addressed in the theme of our symposium this year, which is "Innovation for Global Sustainability." We hope that you will take this opportunity to gain valuable knowledge and experience from the paper and poster presentations. We are also pleased to inform that this symposium will feature three distinguished keynote speakers who are very knowledgeable in theory and practices of innovations for global sustainability.

ISoRIS '19 is the second collaborative effort between UNIBA, IS3 and SUSREM. The first was a successfully effort organising ISoRIS '18 in Surakarta, Indonesia last year which then is vividly remembered. Among other smart partnerships we have had are the PhD, joint research, mobility students exchange, visiting lecturers/professors, joint publications and research grant. Alhamdulillah, all of these collabrations have been very successful. Hence, we would like to take this opportunity to thank Professor Datuk Dr. Mohd Razali bin Muhamad, Assoc. Prof. Dr. Massila Kamalrudin (UTeM) and Ir. H. Solichul Hadi A. Bakri, M.Erg (UNIBA) for their tireless efforts in making the collaborations a reality.

For ISoRIS'19 specifically, we would like to express our thanks and appreciation to the working committee members, the keynote speakers, participants, sponsors, administrative supporters, journal organisers and many others for making this symposium a fruitful event.

Hopefully, what we have done together can be a way for the creation of a nobler civilization, and this symposium will be a memorable experience to all participants.

Wassalamu'alaikum Wr. Wb.

Dr Suriati Akmal Chair of the UTeM Committee

Dr Supawi Pawenang, SE, MM Chairperson of the UNIBA Surakarta Committee Vice Rector for Academic, Students, Cooperation

Co-chairs of ISoRIS'19

Keynote Speaker 1

> Dr Mohd Shahrul Azmi Mohamad Yusoff Director, IC-Innovation, SMART Manufacturing, SIRIM Berhad.



Dr Mohd Shahrul Azmi Mohamad Yusoff is currently the director of Innovation in Smart Manufacturing at Standard and Research Institution of Malaysia (SIRIM). His PhD was on the study of acoustic detection and signal processing for predictive maintenance. With over 18 years' experience in the industry, his publications include journals and technology articles. He is currently pursuing advanced research in predictive maintenance using artificial intelligence techniques as part on implementation strategy within the I4.0 Centre of Excellence.

Featured KEYNOTE SPEAKERS



eynote Speaker 2

Dr Kader Ibrahim Abdul Wahab Chief Operating Officer, SilTerra Malaysia Sdn Bhd

Kader Ibrahim holds a Bachelor of Electrical and Electronic Engineering degree from National University of Malaysia (UKM) and Master of Science degree in Manufacturing from Universiti Putra Malaysia (UPM). He also holds a Doctor of Philosophy degree from Universiti Malaysia Perlis (UniMAP). Started the career in Motorola Seremban in 1991 as diffusion process engineer in a 4" bipolar fab. Taken more responsibility to be in-charge of Class Probe, Testing, LPCVD nitride and customer interface. Moved to Silterra in 1998 as diffusion Staff engineer. Since then were involved in many other areas like Implant, Cleans Technology, QA, Photolithography and CMP. Currently in-charge Fab operations overseeing all aspects including manufacturing, finance, procurement, logistics and facilities.



Dr Shahrul Yazid Yahaya Research & Department Manager, Intel Corporation Malaysia.



Dr Shahrul Yazid Yahaya is a PhD holder in engineering graduated in 2008 from Universiti Teknologi Malaysia (UTM). He is previously completed his study in Master of Business Administration from Universiti Utara Malaysia (UUM) in 2004. He finished his B.S. in Electrical Engineering from University of Missouri-Rolla, USA. He has a great experience in education and he got a Certificate of Executive Continuing education from University of California Santa Cruz Extension in 1994. in 1991. Remarkably, most of his educational certificates that he received were during his services with Intel, Malaysia which he attached to since 1992. Within that period of time he has also held many important positions in the company such as Senior Program Manager. Business Operation Manager, Head of department, Strategic Program Manager, Research and Program Director, Product Development Engineering Manager, and Operation Manager. He is currently appointed as Department Manager for System-Test Hardware Design & Development which requires his vast experiences and capability in designing business and organizational leadership of design which scope in program management, design engineering, layout engineering, signal integrity, FPGA and validation engineering functions. Despite of his hectic life style in industry he managed to allocate some times in publishing articles, becoming facilitators in leadership programs, full-filling invitation as speakers in many topics especially those related to ICT and R&D, and involve to more than 30 occasions as industry examiner and advisory panel for universities in Malaysia.

About ISoRIS'19 CONFERENCE

ISoRIS'19 is a research based symposium with the theme of "Innovation for Global Sustainability". This symposium will provide a platform for researchers to strengthen and sustain a culture of innovative and high impact research mainly in the areas of Engineering, ICT and Social Science. This symposium will also be a platform for research students to discuss their work with other researchers. In line with the research and innovation efforts of the country, the symposium will facilitate participants to showcase their innovative products for improvement. All papers presented at this symposium (provided meeting all editorial requirements) will be published into selected Indexed Journal Scopus/ISI.

Besides research papers, a poster and demonstration session will be held during the ISoRIS'19 programme. Researchers, industry representatives and students are invited to share and demonstrate their works progress, research demonstration and test beds, industry demonstration of new application or techniques, upcoming research challenges, future directions, and novel approaches. For students, particularly, this session provides valuable opportunities to interact with experts and receive valuable feedbacks for their on-going project.

The following tracks identified for the ISoRIS'19 conference:





INNOVATIVE SOFTWARE SYSTEM AND SERVICES (IS3)



IS3 research group is formed based on a multi-disciplinary concept, where its members are from multi-faculty with multi-field of interest. It is also formed based on a bottom-up strategy, realizing the enthusiasm of diverse background and expertise of the researchers to collaborate and work together in achieving one direction/theme: Sustainability. IS3 is a unique combination of innovative technology, experience and knowledge for solving real life problems. It consists of two essential components: Innovative Software System and Services (IS3). The component of innovative software system focuses on the application and experimentation of innovative computing knowledge or solution for solving problems. As for the services component, it deals with providing high value services to the nation. Since its inception, IS3 has actively conducted research with players from the software/IT sector and its related fleet, engineering, education as well as social sectors. The areas of research, consultation and training of IS3 are innovative software development, innovative software system for engineering, innovative software for education and social. These areas are also interrelated and inter-dependent to each other. Consistent with its core theme, sustainability, IS3aims to provide sustainable solutions to all application domains by reducing cost, improving efficiency and flexibility, improving control and consistency of the process and minimizing the resistance of usage of software system developed for any application of domains.

Industrial Visit to Google

LoI Signing with Siemens

Academic Visit to Nanzan University-Japan SUStainable Responsive Manufacturing

SUSTAINABLE AND RESPONSIVE MANUFACTURING (SUSREM)

SUSREM research group originates from the need for sustainable and responsive manufacturing capabilities in the future. Sustainable manufacturing is a comprehensive and systemic concept encompassing the three critical components, the environment, the economy and the society. This concept uses both technological and non-technological solutions that include the selection of materials and production processes, life cycle engineering, as well as organizational mission, structure and performance. Sustainable manufacturing is the foundation in ensuring clean, carbonneutral global economy in the next three to five decades. Unlike TQM and Lean Manufacturing, which impacts mainly the production organization and planning, sustainable manufacturing has wider impacts, which makes the contribution of all engineering specialties and functions more important and valuable than in any of the preceding major transformations in manufacturing. We focus our research to provide manufacturing enterprise with new cutting edge findings which allow companies to outperform competitors by excelling simultaneously in six domains: product and process development; the adaptability of the enterprise to changes in its environment; ability to deal with continues change; the balance of its response under condition of uncertainty; efficiency in operating as a smart partner in an extended and increasingly global supply network; and ability to remain sustainable in relation to the environmental requirements.

Introduction of RESEARCH GROUPS



PROGRAM SCHEDULE

Day 1 : Wednesday 28 August 2019

I VIII COL	
07:45 - 08:20	Registration and Refreshments
08:20 - 08:30	Welcoming Notes
	Dr. Supawi Pawenang, Co-chair of ISoRIS'19
08:30 - 10:00	Parallel Technical Session 1
10:00 - 10:30	Morning Tea/Coffee Break
10:30 - 11:30	Keynote Address 1
	A Sustainable Tomorrow through 4th Industrial Revolution
	(I4.0) Driven Innovation by
	Dr. Mohd Shahrul Azmi Mohamad Yusoff,
1	Director, IC-Innovation, SMART Manufacturing, SIRIM Berhad
11:30 - 11:45	Parallel Session Setting
11:45 - 13.00	Parallel Technical Session 2
13:00 - 14:00	Networking Lunch with Poster Viewing
14:00 - 15:00	Keynote Address 2
, i	Sustainable Manufacturing: SilTerra Journey
1	Dr. Kader Ibrahim Abdul Wahab
1	Chief Operating Officer, SilTerra Malaysia Sdn Bhd
15:00 - 17:00	Parallel Technical Session 3 & Poster Evaluation
	(with Afternoon Tea/Coffee Break)
17.15	Penang Tour

Day 2 : Thursday 29 August 2019

08:30 - 09:00	Registration and Refreshments
09:00 - 10:00	Keynote Address 3
	Connecting R&D to Market: An Industry Approach and Perspective by
1	Dr. Shahrul Yazid Yahaya,
	Research & Department Manager, Intel Corporation Malaysia
10:00 - 10:30	Morning Tea/Coffee
10:30 - 12:15	Parallel Technical Session 4
12:15 - 13:00	Closing Ceremony and Awards Giving
I	Professor Datuk Ts. Dr. Mohd Razali Muhamad, UTeM
13:00 - 14:30	Networking Lunch
14:30 - 17.00	Roundtable Discussion – IS3 and SUSREM



Conference Co-host:



Universitas Islam Batik Surakarta





Yayasan Perguruan Tinggi Islam Batik





Theme: "Innovative Solutions Towards Sustainability" 15-16 October, UTeM

ISPRIS'17

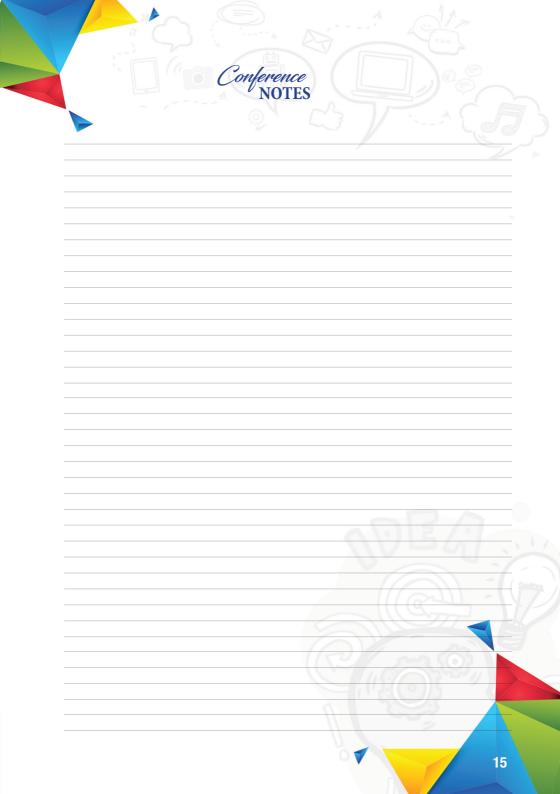


Theme: "Innovative and Sustainable Technologies for Societal Wellbeing" 18-19 July, Ramada Plaza Hotel, Melaka

IS@RIS '18



Theme: "Leveraging Innovation and Humanity for Industry 4.0" 4-5 October, Solo, Indonesia



Contact Information



Assoc. Prof. Dr. Massila Kamalrudin IS3 Leader Email: massila@utem.edu.my https://coe.utem.edu.my/c-act/IS3.html | https://www.facebook.com/IS3.CACT/



Assoc. Prof. Dr. Seri Rahaya Kamat SUSREM Leader Email: seri@utem.edu.my



Dr. Supawi Pawenang, SE, MM Email: supawi_pawenang@uniba.ac.id https://uniba.ac.id/utama/



PAPER PRESENTATION SCHEDULE

VENUE	:	MECURE PENANG BEACH HOTEL
GOVERNOR HALL	:	GROUND FLOOR (BEHIND OMBAK CAFÉ)
BOARDROOM	:	1 ST FLOOR (IN FRONT OF THE ELEVATOR)
PEARL BALLROOM	:	6 [™] FLOOR
PINANG BALLROOM	:	6 [™] FLOOR (MAIN HALL)





PARALLEL TECHNICAL SESSION 1

08:30 - 09:15

-				
Time	BOARDROOM	GOVERNOR HALL	PEARL BALLROOM	PINANG BALLROOM
	TRACK 1: SUSTAINABLE AND RESPONSIVE MANUFACTURING	TRACK 3: SOCIAL IMPACT ON INNOVATION AND TECHNOLOGY	TRACK 4: ENTREPRENEURSHIP AND MANAGEMENT STUDIES	TRACK 6: OTHERS (LAW AND AGRICULTURAL STUDIES)
08:30 - 08:45	CLOTHING INDUSTRY PRODUCTIVITY IMPROVEMENT USING TOYOTA SEWING SYSTEM AND SIMULATION Rohana Abdullah, Leow Li Ying, Amir Hamzah Abdul Rasib	REGULATION ON THIRD PARTY FUNDING IN ARBITRATION IN INDONESIA (COOPERATIVE STUDY IN SINGAPORE AND HONG KONG) Anis Rifai, Dewi M Djukardi, I Gusti Ayu Ketut Rachmi H, Endang Sumiarni	THE EFFECT OF SOCIAL NETWORK SITES ON THE HOTELS' INNOVATION CAPABILITIES AND PEFFORMANCE. A REVIEW PAPER Abdulhadi Al-Hammadi, Samer Ali Al-shami, safiah sidek, Abdulla Al- hammadi, Muliati Sedek	STRENGTHENING TEACHING OF NATURE AGAINST MATERIAL LAW IN ERADICATING CRIMINAL ACTS OF CORRUPTION IN INDONESIA Burham Pranawa, Hartiwiningsih, Hari Purwadi
08:45 - 09:00	CRITICAL FACTORS FOR PRODUCT CHANGE TIME LOSS IN MANUFACTURING OPERATION Amir Hamzah Abdul Rasib, Rohana Abdullah, Zuhriah Ebrahim	RECONSTRUCTION OF SETTLEMENT MODELS OF VIOLENCE AGAINST WOMEN THROUGH DEVELOPMENT OF RESTORATIVE JUSTICE Gayatri Dyah Suprobowati, Rosa Nikmatul Fajri, Norida Abdullah	MOTIVATION FACTORS THAT INFLUENCE TOURISTS LOYALTY TO HALAL TOURISM DESTINATION. A REVIEW PAPER Abdulla Al-hammadi, Samer Ali Al-shami, Abdulhadi Al-Hammadi, Safiah Sidek, Muliati Sedek	GENDER-BASED E- COUNSELING AS A RECOVERY MEANS FOR WOMEN VICTIMS OF SEXUAL HARASSMENT AT WORKPLACE Gayatri Dyah, Suprobowati ,Kukuh, Tejomurti, Yohanes Wahyu, Nugroho, Norida Abdullah
09:00 - 09:15	SUSTAINING INTEGRATED MANAGEMENT SYSTEMS THROUGH ORGANIZATIONAL CULTURE TO ACHIEVE ORGANIZATIONAL EXCELLENCE: EXPERT INSIGHT FROM SELECTED CASES Anas Nasir Daharat, Mohammad Kamil Sued, Zulkeflee Abdullah	THE CONCEPTUALIZATION OF STRATEGIC TALENT MANAGEMENT FOR OIL AND GAS COMPANIES IN THE UAE Ibraheem Al Hammadi, Safiah Sidek, Samer Ali Al-shami	ONLINE BUSINESS BARRIERS: PERCEPTION OF INDONESIAN SMALL FAMILY BUSINESS Anita Wijayanti, Massila Kamalrudin, Safiah Sidek, Ratna Damayanti, Hendrik	FACTORS THAT INFLUENCE SOCIAL PARTICIPATION OF RURAL WOMEN IN SELECTED REGIONS OF DUHOK GOVERNORATE / IRAQ Hashim Saeed Murad, Abid Ali Hasan Al-Doski, Aamel F. Khalil Al-Abbassi

PARALLEL TECHNICAL SESSION 1

09:15 - 10:00

Time	BOARDROOM	GOVERNOR HALL	PEARL BALLROOM	PINANG BALLROOM
09:15 09:30	ELECTRICAL STUDIES OF CU WIRE INTERCONNECTIONS IN ELECTRONIC PACKAGES UPON HIGH TEMPERATURE STORAGE T. Joseph Sahaya Anand, S. Shariza, Chua Kok Yau, A.R.M. Warikh, Kok- Tee Lau, Lim Boon Huat	ANALYSIS OF OBSTACLE FACTORS OF THE LEGAL PROTECTION PROGRAM OF EMPLOYMENT SOCIAL SECURITY FOR INFORMAL WORKERS (CASE STUDY IN CENTRAL JAVA PROVINCE) Siti Ummu Adillah, I Gusti Ayu Ketut Rachmi Handayani	P2P LENDING AS AN ALTERNATIVE FUNDING: A PERSPECTIVE OF SMES Damayanti, Ratna, Ali Hussein Al-Shami, Samer, Marwati, Fithri Setya	THE ROLE OF CONSUMER ATTITUDES IN THE MEDIATED INFLUENCE OF HEALTHY LIFESTYLE AND THE REFERENCES TO ORGANIC RICE PURCHASING DECISION (STUDY ON THE CONSUMERS OF ORGANIC RICE PADI MULYA SURAKARTA) Ida Aryati Diyah, Siti Maryam, Ibnu Suryo
09:30 - 09:45	SURFACE MODIFICATION OF TUNGSTEN CARBIDE USING ELECTRICAL DISCHARGE COATING WITH INCLUSION OF QUARRY DUST POWDER Ching Yee Yap, Pay Jun Liew, Intan Sharhida Othman	EXPRESSIVE SPEECH ACTS AS CONVERSATIONAL INNOVATION OF RADIO ROADCASTERS IN SURAKARTA Wiwik Yulianti, Sumarlam, Muhammad Rohmad, Agus Hari Wibowo	BUILDING THE ENTREPRENEURSIP SPIRIT OF VOCATIONAL SCHOOL STUDENTS THROUGH MATHEMATICS PROBLEM BASED LEARNING: A REVIEW Diah Ayu Kurniasih, Pris Priyanto	ANALYSIS OF INSTITUTION MODEL IN FOREST AND AGRICULTURE FIRE CONTROL Pramono Hadi, Sri Julie Rahmawati, Siti Nurlela
09:45 - 10:00	COPPER FILLING OF PRINTED CIRCUIT BROAD (PCB) INDUSTRY: A REVIEW Kah Yan Wong, Pay Jun Liew, Kok Tee Lau	OPTIMAL DISTINCTIVENESS OPEN INNOVATION: WHAT IS IT? HOW TO MEASURE IT? A LITERATURE REVIEW Luhgiatno Luhgiatno and Christantius Dwiatmadja	THE CONTROL FACTORS TO MANAGE THE SITE ERRORS OF RADIOTHERAPY DELIVERY Hendrik, Massila Kamalrudin, Mohamad Razali, Anita Wijayanti, Supawi Pawenang	MYPHYSIO: A DESIGN OF SPEECH TO TEXT TELEHEALTH APPLICATION TO FACILITATE HOME BASED PHYSIOTHERAPY SESSION FOR PATIENTS WITH PHYSICAL LIMITATION Raja Rina Raja Ikram, Lee Pik Yun, Lizawati Salahuddin, Nadiah Ishak , Nor Syafinaz Yaakob, Fatimah Dzaharudin



PARALLEL TECHNICAL SESSION 2

11:45 - 12:30

Time	BOARDROOM	GOVERNOR HALL	PEARL BALLROOM	PINANG BALLROOM
	TRACK 1: SUSTAINABLE AND RESPONSIVE MANUFACTURING	TRACK 5: EDUCATION STUDIES	TRACK 4: ENTREPRENEURSHIP AND MANAGEMENT STUDIES	TRACK 6: OTHERS (LAW AND AGRICULTURAL STUDIES)
11:45 - 12:00	DESIGN OF PID CONTROLLER WITH EMBEDDED CONDITIONAL INTEGRATOR (PID + iCON) FOR ACCURATE POSITIONING OF MACHINE TOOLS L. Abdullah, M.L Mohamad Nor, MS Syed Mohamaed, Z. Retas, Z. Jamaludin, M.N. Maslan, R. Zamri, M. Zainon, M. Mat Ali, M.S Noorazizi	COMPARISON OF INTERNET BASED LEARNING AND CONVENTIONAL LEARNING MODELS ON COMPUTER SELF- EFFICACY ABILITY Pris Priyanto , Diah Ayu Kurniasih	THE RESPONSIBILITY OF INDONESIA TOWARDS HUMAN RIGHTS VIOLATION CARRIED OUT BY CORPORATION Isplancius, Tri Lisiani Prihatinah, Nur Wakhi	THE TAXONOMY AND PRINCIPLES OF YOUTH DEVELOPMENT PROGRAMS Khulood Alhammadi, Safiah Sidek, Massila Kamalrudin, Samer Ali Al- shami
12:00 - 12:15	INFLUENCE OF EGGSHELLS CONTENT ON PROPERTIES OF SINTERED GLASS COMPOSITE USING DIRECT SINTERING Masturah Mesri, Zurina Shamsudin, Rafidah Hasan	IMPACT OF ACADEMIC SUPERVISION AGAINST TEACHER COMPETENCY IMPROVEMENT: A REVIEW Sulistyanto, Danang, Mohamed, Shahrulanuar, Aripin, MuhamadAfzamiman , Ngatiyono , Suroso, CeketPalupi	RISK-TAKING BEHAVIOR TOWARDS THE INTENTION OF SANTRI ENTREPRENEUR IN THE THEOPRENEURSHIP PESANTREN Suliswiyadi, Agus Miswanto, Marlina Kurnia, Irham Nugroho	ANALYSIS OF INDONESIAN IDENTITY, CULTURAL HERITAGE, AND BATIK PRODUCTS TOWARD SOLO COMMUNITY PURCHASE DECISION Siti Maryam, Ida Aryati, Istiqomah
12:15 - 12:30	LINEAR REGRESSION ANALYSIS OF LAMINATOR IN HAND LAYUP PROCESS Nur Syafiqah Rayme, Seri Rahayu Kamat, Syamimi Shamsuddin	STIGMATIZATION PESANTREN RADICALISM- TERRORISM: AN ANALYSIS OF CURRICULUM SUPERVISION DYSFUNCTION Suliswiyadi, Supawi Pawenang, Imron, Ahmad Tantowi	AN ANALYSIS OF THE EFFECT OF MARKETING MIXES ON THE PURCHASE DECISIONS OF ANGKRINGAN MODERN (STUDY OF PURCHASES IN ANGKRINGAN MODERN IN SURAKARTA) Marwati, Fithri Setya, Aryati, Ida, Damayanti, Ratna	MODEL LAW OF ADMINISTRATIVE FINES ON POPULATION ADMINISTRATION IN LOCAL REGULATORY Ariy Khaerudin, Suharno Suharno

PARALLEL TECHNICAL SESSION 2

12:30 - 13:00

Time	BOARDROOM	GOVERNOR HALL	PEARL BALLROOM	PINANG BALLROOM
12:30 - 12:45	THE INFLUENCE OF REGULATORY PRESSURE IN SHAPING CONSTRUCTION FIRMS' DECISION TO ADOPT GREEN INNOVATION R. Hashim, S. Cooper	ROLE OF LEADERSHIP IN TRANSFORMATION OF HIGHER EDUCATION IN INDONESIA Supawi Pawenang ; Sri Supriyati ; Literzet Sobri	MEASURING WEBSITE QUALITY THROUGH SERVICE QUALITY AND USER SATISFACTION DIMENSIONS: A CONCEPTUAL FRAMEWORK Mohammed Albalushi, Zanariah J, Indra Devi S	IMAGE ANALYSIS OF CRACKS IN UNDERWATER ENVIRONMENT Ahmad Zaki Shukor, Nur Syahirah Mazlan, Sarmila Elangovan, Muhammad Herman Jamaluddin
12:45 - 13:00	A STUDY OF TOTAL QUALITY MANAGEMENT ON AVIATION INDUSTRY Suriati Akmal, Abdullah Thamer Alshamsi, Samer Ali Al-shami, Massila Kamalrudin, Safiah Sidek	TEACHING APPROACHES AND METHODS FOR ENTREPRENEURSHIP EDUCATION AND TECHNOPRENEURSHIP IN HIGH SCHOOLS: A REVIEW Teguh Slamet, Safiah Sidek and Samer Ali	ANALYSIS OF MARKETING-MIX 4Ps ON STUDENT DECISIONS CHOOSING THE STUDY PROGRAM OF MANAGEMENT Rahayu Triastity; Galih Ayu Sartika; Supawi Pawenang	INTELLECTUAL PROPERTY PROTECTION POLICY FORMULATION OF JAVANESE TRADITIONAL MEDICINE KNOWLEDGE TO IMPROVE COMPETITIVENESS IN THE ASEAN COMMUNITY

Hafid Zakariya, Tria Rosana Dewi



http://www.utem.edu.my/

PARALLEL TECHNICAL SESSION 3

15:00 - 15:45

Time	BOARDROOM	GOVERNOR HALL	PEARL BALLROOM	PINANG BALLROOM
	TRACK 1: SUSTAINABLE AND RESPONSIVE MANUFACTURING	TRACK 5: EDUCATION STUDIES	TRACK 4: ENTREPRENEURSHIP AND MANAGEMENT STUDIES	TRACK 4: ENTREPRENEURSHIP AND MANAGEMENT STUDIES
15:00 - 15:15	INTERNATIONAL COMPARATIVE STUDY ON FIBER- REINFORCED- COMPOSITE'S RECYCLING PLANTS TOWARDS THE SUCCESSFULNESS OF CIRCULAR ECONOMY AI Amin Mohamed Sultan , Fatimah Md. Radzai , Afifuddin Husairi Hussain, Paul Tarisai Mativenga	THE BARRIER FACTORS OF VOCATIONAL SCHOOLS TO IMPLEMENT ONLINE LEARNING FOR MATHEMATICS STUDY Bambang Kandiawan, Massila binti Kamalrudin, Safiah binti Sidek	ANALYSIS OF COOPERATIVE MARKETING STRATEGY FOR ORGANIC FARMING PRODUCT Suswadi, E.S. Rahayu, M. Harisudin and S. Anantanyu	THE FINANCIAL REPORT MANUAL RECORDING REVIEW OF THE INDONESIAN RED CROSS OF REMBANG REGENCY IN 2018 Rosa Nikmatul Fajri, Endang Masitoh Wahyuningsih, Gayatri Dyah Suprobowati, Dr Nor Azah binti Abdul Aziz
15:15 - 15:30	A MOBILE 3D SCANNER INTERFACE FOR INDOOR SCENE UNDERSTANDING S. Akmal, M.I. Karama, S.A.A. Shukor, Jalal Johari	A COMPARISON OF THE CONVENTIONAL AND PEER LEARNING APPROACH FOR ACHIEVING LEARNING OUTCOMES: A CONCEPTUAL FRAMEWORK Budiarsi , Safiah binti Sidek , Massila binti Kamalrudin	PERFORMANCE ASSESSMENT OF TECHNOLOGY COMPANIES IN MALAYSIA WITH ENTROPY-VIKOR MODEL Lam Weng Siew, Liew Kah Fai, Lam Weng Hoe	THE GROWTH AND CHALLENGES OF SMES IN ABU DHABI Saeed Al-Ali, Safiah Sidek, Samer Ali Al-shami
15:30 - 15:45	THE IMPACT OF SOCIAL PRESSURE AND ECO-INNOVATION PRACTICES ON CHEMICAL FIRM'S SUSTAINABLE PERFORMANCE Salmah Omar, Norfaridatul Akmaliah Othman, Norsiah Hami, Mastora Mustafar	STE @M-Q EDUCATION: INNOVATION IN LEARNING Ceket Palupi Suroso, Mahadi Bin Abu Hassan, Shahrulanuar Bin Mohamed	KNOWLEDGE MANAGEMENT PRACTICES IN DEVELOPING COUNTRIES Suriati Akmal, Mubarak Alrashdi, Samer Ali Al- shami	THE THREE PILLARS OF INDUSTRIAL ECOLOGY KAMPOENG BATIK LAWEYAN IN SURAKARTA Siti Maryam, Evi Gravitiani, Joko Sutrisno and Endang Siti Rahayu

PARALLEL TECHNICAL SESSION 3

15:45 - 16:30

Time	BOARDROOM	GOVERNOR HALL	PEARL BALLROOM	PINANG BALLROOM
15:45 - 16:00	ANKLE ANGLE CONTRIBUTE TO SLIP DURING FOOD PRODUCTION ACTIVITY Sharifah Aznee Syed Ali, Seri Rahayu Kamat	LEARNING MODEL BASED ON SOFT SKILL WITH THELEARNING MODEL BASED ON SOFT SKILL WITH THE CONSTRUCTIVIST AND BEHAVIORISTIC APPROACH Imron, Suliswiyadi, Afga Sidiq Rifai	THE IMPACT OF SUSTAINABLE MANUFACTURING PRACTICES AND SUSTAINABLE MAINTENANCE ON ECONOMIC SUSTAINABILITY: A CONCEPTUAL FRAMEWORK Yousif Munadhil Ibrahim, Norsiah Hami, Fadhilah Mat Yamin, Shafini Mohd Shafie, Susan Sabah Abdulameer, Mohd Razali Muhamad	EMPIRICAL INVESTIGATION OF ADAPTATION TO FUTURE CHANGES AND PRODUCT INNOVATION CAPABILITIES ON THE MARKETING PERFORMANCE Sudarwati, Wisnu Untoro, Ahmad Ikhwan Setiawan, Intan Novela Qurrotul Aini
16:00 - 16:15	ROBOTIC GRIPPING ANALYSIS OF FORCE SENSITIVE RESISTOR ON DIFFERENT RIGIDITY OF OBJECT Sarmila Elangovan, Ahmad Zaki bin Hj Shukor, Muhammad Herman bin Jamaluddin	SOCIAL EXCHANGE ON TEAMWORK AMONG TEACHERS Joko Sumarsono, Norliah Kudus, Shahrulanuar Mohamed, Literzet Sobri , Moh. Setio Nugroho	A LITERATURE REVIEW ON THE IMPACT OF WORK ENVIRONMENT AND LEADERSHIP STYLES ON JOB PERFORMANCE IN UAE Maktoum Alkaabi, Norliah and Maktoum	GENDER PERSPECTIVE AND STUDENTS' ENTREPRENEURIAL INTENTION FACTOR BY INDONESIAN AND MALAYSIAN STUDENTS: A COMPARATIVE STUDY Suci Purwandari, Safiah binti Sidek , Sayed Samer Ali Hussein Al-shami, Ratna Susanti
16:15 - 16:30	IDENTITY POLITICS IN IMPLEMENTATION OF ELECTION IN THE GLOBALIZATION ERA Dr. Sunny Ummul Firdaus, S.H. M.H., Rudatyo, S.H. M.H., Usep Taryana, S.H.	MODEL OF STUDENT CHARACTER DEVELOPMENT THROUGH THE USE OF EDUCATIONAL TECHNOLOGY BASED ON LOCAL WISDOM Moch Syafrudin D. Laxamanahady, Shahrulanuar bin Mohamed, Norliah binti Kudus	THE ISSUES AND STATE OF BUSINESS BATIK INDUSTRY TO MAINTAIN THEIR SUSTAINABILITY IN SRAGEN, INDONESIA Bakri, Solichul Hadi Achmad, Massila binti Kamalrudin, Suwardi, Grenjeng Siwal Kaliwungu, Noorezam Yusop, Safiah Sidek	INTELLECTUAL CAPITAL, STRATEGIC ORIENTATION AND PERFORMANCE: STUDIES ON SMALL BUSINESSES TOURISM IN INDONESIA Junaedi Junaedi, Suci Purwandari



PARALLEL TECHNICAL SESSION 3

16:30 - 16:45

Time	BOARDROOM	GOVERNOR HALL	PEARL BALLROOM	PINANG BALLROOM
16:30 - 16:45	BOBBIN FRICTION STIR WELDING FOR THIN PLATE COLD ROLLED STEEL SHEET Muhammad Nur Izzuddin Bin Noor Tazlin, Mohammad Kamil Bin Sued, Mohammad Khairul, Azmi Bin Mohd Kassim and Shikh Ismail Fairus Bin Shikh Zakaria	SERVICE QUALITY: AN OVERVIEW OF CUSTOMER SATISFACTION IN PRIVATE SCHOOLS Ngatiyono, Zuhriah Ebrahim, Mohammad Razali, CeketPalupi Suroso Danang Sulistyanto	THE ROLE OF ENTREPRENEURSHIP IN THE MEDIATED EXPERIENCE OF INTEREST TOWARDS SOCIAL ENTREPRENEURSHIP AND THE CHARACTERISTICS OF THE INDIVIDUAL AS THE MODERATE VARIABLE (Study in Kampung Batik Laweyan Surakarta) Ibnu Suryo, Ida Aryati, Sigit Santosa	



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PARALLEL TECHNICAL SESSION 4

10:30 - 11:15

Time	BOARDROOM	GOVERNOR HALL	
	TRACK 1: SUSTAINABLE AND RESPONSIVE MANUFACTURING	TRACK 5: EDUCATION STUDIES	
10:30 - 10:45	2D DISCRETE COSINE TRANSFORM IN IMAGECOMPRESSION RA Hamzah, N Mohamood, SFA Gani, AF Kadmin, KA Aziz, MM Roslan, TMFT Wook	THE IMPORTANCE OF IMPLEMENTING GOOD AQUACULTURE PRACTICES BASED ON THE ANALYSIS OF QUR'ANIC VERSES Betania Kartika, Firdaus Fanny Putera Perdana	
10:45 - 11:00	THE INFLUENCE OF HEAT TREATMENT ON MECHANICAL AND MICROSTRUCTURE PROPERTIES OF INTERMETALLIC NICKEL ALUMINIDE NI3AI T. Joseph Sahaya Anand, H.H.H. Afandi, S. Shariza, I.S. Othman, Sivaraos	THE IMPLEMENTATION OF ASEAN GAqP IN OVERCOMING AL-JALLALAH RELATED ISSUES; WITH THE FOCUS ON SHARIAH-COMPLIANT AND SUSTAINABILITY ELEMENTS Betania Kartika, Sitti Walida Parson, M. Aizat Jamaludin, Noor Faizul Hadry Nordin, Ahmad Jalal Khan Chowdhury, Supawi Pawenang	
11:00 _ 11:15	DEVELOPMENT OF A WEB-BASED VIRTUAL MANUFACTURING OF CNC TURNING SYSTEM Rahmatullah, Mohd Razali Muhamad and Zolkarnain Marjom	THE THEOANTROPOCENTRIC BASED MODEL OF DEMAND AND SUPPLY Supawi Pawenang, Sri Supriyati, Betania Kartika. Burhanudin A. Yani	



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PARALLEL TECHNICAL SESSION 4

11:15 - 12:00

Time	BOARDROOM	GOVERNOR HALL	
	TRACK 2: INNOVATIVE SOFTWARE SYSTEM AND ICT	TRACK 5: EDUCATION STUDIES	
11:15 _ 11:30	GRAPHICAL PASSWORD AUTHENTICATION USING IMAGE SEGMENTATION FOR A SECURE PERSONAL MOBILE PLANNER SYSTEM Hui Hui Phang, Mohd Rizuan Baharon, Syarulnaziah Anawar, Ariff Idris, Hairol Nizam Mohd Shah and Aine Mac Dermott	OPTIMIZING THE IMPLEMENTATION OF STANDARD OPERATING PROCEDURE- GOOD AGRICULTURE RACTICE (SOP-GAP) FOR ORGANIC RICE FARMING IN BOYOLALI Suswadi, Agung Prasetyo, Ratih Dwi Kartikasari	
11:30 - 11:45	OVERVIEW ON ENVIRONMETAL CONSEQUENCES TRIGGERED BY MOBILE PHONE WASTE IN MALAYSIA Taher Khalaf Barakat Ayoub, Md Nizam Abd Rahman, and Effendi Mohamad	ROLE OF YOUTH IN ORGANIC RICE COMMERCIALIZATION IN BOYOLALI Suswadi, Agung Prasetyo, Sutarno	
11:45 - 12:00	DETECTION AND MONITORING OF FIBER FAULT USING INTERNET OF THING (IOT) FOR FIBER TO THE HOME (FTTH) Siti Asma Che Aziz, Adib Othman, Muhammad Ridwan Zainul Ariffin, Noor Azwan Shairi and Win Adyanshah		



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LOCATION		FOYER AREA LEVEL 6
Move In Time (Mounting)	29 Aug 2010	08:30 - 09:00
Presentation and Evaluation Hours	28 Aug 2019	12:30 - 16:30
Move Out Time (Dismantling)	29 Aug 2019	13:00 - 14:00

POSTER

POSTER ID	POSTER TITLE AND AUTHORS
001	ENTERPRISE INSIGHTS ON INFORMATION QUALITY IN SERVICE-ORIENTED ARCHITECTURE INITIATIVE Muhammad Suhaizan Sulong, Azlianor Abdul-Aziz &Nurul Akmar Emran
002	WEB TEAM VIEWS ON INFORMATION QUALITY IN WEB DESIGN & DEVELOPMENT Azlianor Abdul-Aziz, Muhammad Suhaizan Sulong & Nurul Akmar Emran
003	CHARACTERIZATION OF INDIUM DOPED ZINC OXIDE POWDER PREPARED VIA SOL GEL METHOD Nurhernida Abdullah Sani, Mohd Edeerozey Abd Manaf & Qumrul Ahsan
004	Obstacles Detection Shoes Using Arduino Uno Effendy Onn Siam, Syazwi Nadzir Abdul Somat, Rohana Abdullah & Seri Rahayu Kamat
005	POWER-ASSISTED TOWING MECHANISM FOR MOTORCYCLE Muhamad Arfauz A Rahman, Muhamad Salihin Mohd Isa, Irfan Hadi Mohd Zulkafli, Muhammad Syakir Zainuddin, Vanessa Lipang Henry, Abernice Ann Anak Abert Achilles Nunong, Effendi Mohamad, Mohd Amri Sulaiman, Nor Akramin Mohamad, Mohd Rizal Salleh, Mohamad Ridzuan Jamli, Rosidah Jaafar & Nizamul Ikbal Khaeruddin
006	DEVELOPMENT OF TETRAPLEGIC ASSISTIVE DEVICE (TRAD) FOR MALAYSIAN REHABILITATION PATIENTS Ruzy Haryati Hambali, Hafifi Hisham, Muhammad Zakuwan Bahari, Faizun Haziq Zamani, Iffah Fikriyah Muniffah Masrom, Mira Mazlina Mahdzir, Salbiyah Sumaryanto & Alexander Beh



LOCATION		FOYER AREA LEVEL 6	
Move In Time (Mounting)	29 4.1~ 2010	08:30 - 09:00	
Presentation and Evaluation Hours	28 Aug 2019	12:30 - 16:30	
Move Out Time (Dismantling)	29 Aug 2019	13:00 - 14:00	

POSTER

POSTER ID	POSTER TITLE AND AUTHORS
007	HEXAHEDRAL MESHING STRATEGY FOR IRREGULAR SURFACE PROFILE: CASE STUDY OF ANATOMICAL MODELS Masni-Azian Akiah & Siti Fatimah Khadijah Mortadza
008	APPROXIMATION ALGORITHMS FOR THE TRAVELING SALESMAN WITH A DRONE Mohd Shahrizan Othman, Aleksandar Shurbevski & Hiroshi Nagamochi
009	SMALL ENGINE TUNING AND REMAPPING TRAINING KIT Adnan Katijan, Qamar Fairuz Zahmani, Mohamad Afiq Amiruddin Parnon, TS. Luqman Hakim Hamzah & Mohd Hairizal Osman
010	LEMANG RICE FILLER MACHINE Md Nizam Abd Rahman, Muhammad Zulhazim Ridza Ahmad Nizam, Muhamad Ikhwan Yatul Kadar, Muhammad Haneez Firdaus Hairul Neezam, Wan Mohd Aiman Farhan Wan Ahmat & Siti Nursyafiqah Mohamed Talmizi
011	STRAIN GAUGE MONITORING SYSTEM Adam Wong Yoon Khang, Ahmad Akasha Naim Amir, Lau Kok Tee, Mohd Syafiq Mispan, Zulhairi Othman & Shamsul Jamel Elias
012	WEARABLE SIT-STAND STOOL FOR PROLONGED STANDING Isa Halim, Syahir Syazwan, Mohamad Syahmi, Chan Kah Loh, Amirah Arifah, Nor Hajar Athira & Ismatulidda





(IN ALPHABETICAL ORDER OF PAPER TITLES ACCORDING TO TRACK)



ABSTRACT

TRACK 1: SUSTAINABLE AND RESPONSIVE MANUFACTURING

2D DISCRETE COSINE TRANSFORM IN IMAGE COMPRESSION

RA Hamzah, N Mohamood, SFA Gani, AF Kadmin, KA Aziz, MM Roslan, TMFT Wook

Image compression is an important process in current imaging technology. This technology requires proper storage in digital platform to make more trustworthy to be retrieved. It is due to enormous data management in image processing. Hence, the size must be practical enough to store the data and should not decrease the quality of the images. This process is known as image compression. It is often outlined as a method to get rid of the similar data from the images in order that solely important information can be used to decrease the storage size, transmission information and time measurement. The essential information is extracted by various transforms methods such it is often restructured while not losing quality and data of the image. This work proposes image compression scheme using adaptive Discrete Cosine Transformation (DCT). This approach works adaptively on weighted DCT. The effectiveness of the algorithmic rule has been affordable over some real pictures and also the performance of the algorithm has been compared with differing kinds of image extentions. The Matlab software is used in this work to perform the analysis and the expected result.

A MOBILE 3D SCANNER INTERFACE FOR INDOOR SCENE UNDERSTANDING

S. Akmal, M.I. Karama, S.A.A. Shukor, Jalal Johari

Scene reconstruction has been proven to be beneficial in assisting various applications such as in 3D as-built development for Building Information Modelling (BIM), crime scene understanding and mapping of an environment for a mobile robot. With the availability of various 3D scanners in the market recently, the task of data gathering representing a scene has become straightforward. However, the accompanying interfacing may not be adequate to allow users to understand the scene, furthermore, not all software are capable to open and process the data obtained from a 3D scanner, and some requires a lengthy programming to be performed. This project concentrates on the development of an interface to complement a mobile 3D scanner in understanding indoor scenes. The developed interface is capable to show the real scene with its respective depth information, in addition to perform basic measurements needed in scene understanding. Upon validating the results with real measurements from a laser range finder, the depth model shown high accuracy readings. Thus, it is hope that the interfacing could be used in accompanying any 3D scanner for indoor scene understanding.

A STUDY OF TOTAL QUALITY MANAGEMENT ON AVIATION INDUSTRY

Suriati Akmal, Abdullah Thamer Alshamsi, Samer Ali Al-shami, Massila Kamalrudin, Safiah Sidek

The Total Quality Management (TQM) has been recognized by top management in the service industry as the most promising strategy to satisfy the customer beyond their expectations. Thus, the aim of this paper is to identify analyse the critical success factor of TQM and service quality for aviation industry in UAE. Limited number of studies has been done regarding the implementation of TQM and service quality of aviation industry in UAE. To fill this gap, this study investigates and analyse the critical success factors (CSF) of TQM in the view of service industry that have been proposed in the literature. Further, the dimension of service quality for aviation industry were identified and analysed. The findings are twofold: (1) a set of relevant CSF for TQM in aviation industry; (2) the dimension of service quality for aviation industry such as tangibility, reliability, responsiveness, and assurance. The effectiveness of TQM implementation would drive the aviation industry to provide satisfied service and would eventually become more competitive.

ANKLE ANGLE CONTRIBUTE TO SLIP DURING FOOD PRODUCTION ACTIVITY

Sharifah Aznee Syed Ali, Seri Rahayu Kamat

Working at the food production environment poses a potential hazard for a slip accident. Prolonged standing working posture reflects human balance issues. Therefore, this study investigated the ankle angle during food production activity to justify the potential of slip during the activity and correlate between the walking step and slip incident. Vicon motion capture was used to record movements and Vicon Nexus software was used to analyze data. Six male and six female healthy adults aged between 20 years old to 60 years old with a minimum of 3 years on food production activity experience participated in this study. Participants were to walk with four different steps and carry the load upper limb part on flooring with water and oil as a contaminant. The results yielded slip occurred more often when oil acted as a contaminant especially for overweight and obese participants. There was no correlation between carrying load and Body Mass Index (BMI). The longer walking step also created the occurrence of slip. Therefore, walking with longer step in limited time produce slip to participant especially to overweight and obesity.

BOBBIN FRICTION STIR WELDING FOR THIN PLATE COLD ROLLED STEEL SHEET

Muhammad Nur Izzuddin Bin Noor Tazlin, Mohammad Kamil Bin Sued, Mohammad Khairul, Azmi Bin Mohd Kassim and Shikh Ismail Fairus Bin Shikh Zakaria

Friction stir welding (FSW) is a one of solid-state joining process which is consist of the combination of the heat and pressure in order to form a joining by the stated process. However, there is a lack of study regarding the thickness of material in Bobbin Friction Stir Welding (BFSW). Therefore, this study focuses on investigated welding performance by using BFSW process on thin plate material. The material used to form joining was Cold Rolled Steel Sheet (SPCC) with 1 mm thickness. To form a joining, the design of the tool is necessary, and it might give a huge contribution to the final welded product. The parameter that has been applied for this study is consists of rotational speed and welding speed. CNC milling machine used to run this process. The parameter used to form a joining is 2 different spindle speed with same travel speed. Temperature and current data were recorded to analyze the performance during BFSW process. At the end of this study shows that there is a difficulty to joining thin material using BFSW technique. The reason is the plate are tending to tear and produced defect during welding process such as distortion. Moreover, the tool unable to form any joining due to increasing of the gap. Future work studies need to be conducted in order to overcome the problem occur on thin plate materials.

CLOTHING INDUSTRY PRODUCTIVITY IMPROVEMENT USING TOYOTA SEWING SYSTEM AND SIMULATION

Rohana Abdullah, Leow Li Ying, Amir Hamzah Abdul Rasib

Productivity is the measures of the efficiency of production in the workplace. Being productive can help the firm to produce profitable goods and/or services which lead to better customer satisfaction. However, implementing change for any organization can be a difficult task, either being too costly or involving long lead time. Therefore, simulation plays a vital role in the improvement process. Simulation can be used to study and compare between different alternatives in order to troubleshoot existing system. In this study, Toyota Sewing System and ARENA simulation were used to explore opportunities to increase the manufacturing productivity in the clothing industry. The simulation model was validated against the actual production system prior to experimenting with five different scenarios. As a result, the proposed Toyota Sewing System showed labour productivity increase of 183% and work in progress reduction of 72%. The manufacturing efficiency was also significantly improved from 34.52% to 98.26% using a one-piece flow system, resource sharing and U-shaped layout design.

COPPER FILLING OF PRINTED CIRCUIT BROAD (PCB) INDUSTRY: A REVIEW

Kah Yan Wong, Pay Jun Liew, Kok Tee Lau

With the increasing trend of miniaturisation in the industry, the rising pressure from both the device size and performance forces manufacturers to decrease device size while simultaneously increasing performance. In order to fulfil the demand, the application of copper via filling is one of the methods to achieve the milestone. In this paper, the introduction of the copper filling was presented. The filling parameters such as pressure flow, agitation, current density and additive concentration that affect the quality of via filling were reviewed and highlighted. Besides that, the properties of via and characteristic of copper via filling were also discussed in this paper.

CRITICAL FACTORS FOR PRODUCT CHANGE TIME LOSS IN MANUFACTURING OPERATION

Amir Hamzah Abdul Rasib, Rohana Abdullah, Zuhriah Ebrahim

This paper aims to identify the elements affecting the manufacturing performance. These elements are derived from the operation's Time Loss (TL) which results in the decrease of productivity. TL is a non-value added activity and time delay during manufacturing operation. The methodology used was using findings from the literature review and performing comparison study through Microsoft Excel Spreadsheet as a tool. Then, basic 4M Factors (Man, Machine, Method, and Material) are applied as a specific cluster in order to further investigate and classify the critical elements influencing the operation TL. Based on the critical elements classified, further literature research are done to identify the sub-elements. Finally, three categories of the critical elements provided the managers useful insight prior to taking appropriate improvement actions on activities related to the critical elements identified. The results of this study helps to increase the operational performance especially improvement in the productivity through the increase in the production rate. Further, the critical elements identified will be used to develop a Time Loss Index (TLI) framework structure.

DESIGN OF PID CONTROLLER WITH EMBEDDED CONDITIONAL INTEGRATOR (PID + iCON) FOR ACCURATE POSITIONING OF MACHINE TOOLS

L. Abdullah, M.L Mohamad Nor, MS Syed Mohamaed, Z. Retas, Z. Jamaludin, M.N. Maslan, R. Zamri, M. Zainon, M. Mat Ali, M.S Noorazizi

In general, positioning system is looking for high accuracy and adaptive characteristics. The aim of this article is to evaluate the tracking performance of PID controller with embedded conditional integrator (iCON) module for positioning system application with the presence of disturbance in the form of cutting forces. The tracking performance of a classical PID controller is compared with the PID + iCON controller. It is observed that the PID + iCON controller performs better than PID controller. The result of Root Mean Square Error achieved by PID is 0.0.028 mm at frequency, f = 0.3 Hz, while 0.001064 mm for PID + iCON. The concluding design of PID + iCON control could be applied for positioning as well as machining application. The usage of PID + iCON will increase the quality of the final output and the productivity in manufacturing sectors by saving the machine process time.



DEVELOPMENT OF A WEB-BASED VIRTUAL MANUFACTURING OF CNC TURNING SYSTEM

Rahmatullah Kasim, Mohd Razali Muhamad and Zolkarnain Marjom

Virtual technology in the manufacturing, machining industry has shown the role of growing. Virtual manufacturing (VM) is the description of actual manufacturing process on computer that is using the computer simulation and virtual reality technology. The ability to predict, evaluate, and optimize the performance of production machines and processes, without having to build costly prototypes or run production trials, is highly appealing to both machine tool builders and end users. In turning operation have some error or weaknesses at machining in processes. Possible errors or weaknesses usually in predict setting part geometry, feature, shape and efficient tool path generation. The objective of this paper is generally to improve processes of CNC turning operations easily and relatively simple, cheap and to develop method that it able to use to model the virtual CNC machine tool efficiently. The key requirement of a CNC software supports a large variety of tool paths turning operation. One mistake in software selection is to consider only the existing CNC machines and existing machining methods and practice. The VM is develop by using VRML, Java; Cosmo Player, VRML Pad, Web Browser and CATIA. A workpiece is viewed in simple 3-D model. Effective tool path simulation virtually is discussed in this paper as sepresentation of Virtual Manufacturing system as correction tool to eliminate material waste and faulty design and solve weaknesses and errors evaluation. It provides better understanding of a process without making of prototype models.

ELECTRICAL STUDIES OF CU WIRE INTERCONNECTIONS IN ELECTRONIC PACKAGES UPON HIGH TEMPERATURE STORAGE

T. Joseph Sahaya Anand, S. Shariza, Chua Kok Yau, A.R.M. Warikh, Kok-Tee Lau, Lim Boon Huat

Electrical performance of wire bond interconnection in electronic packages relates closely to the functionality of the microchip during performance in any application. During high temperature storage (HTS), Cu-Al intermetallic compound (IMC) forms due to interfacial diffusion between Cu wire and Al metallization. Heat treatment enhances the growth of the Cu-Al IMC leading to an increase in the thickness of the IMC layer. In this paper, we report the electrical studies and the interfacial microstructure of the thermosonically bonded Cu wire to Al metallization bond pad bonded at 280 °C and annealed for 1000 hours. Samples were studied for their morphology via transmission electron microscopy - energy dispersive X-ray analysis (TEM-EDX) while electrical resistivity of the packages was studied via the current-voltage curve measurements. The experiment results are summarized as: (i) an increase of HTS duration increases the thickness of Cu-Al IMC interface layer; and (ii) an increase of the Cu-Al IMC layer thickness increases the electrical resistivity of the electrical resistivity of the development of materials and devices for improved reliability.

IDENTITY POLITICS IN IMPLEMENTATION OF ELECTION IN THE GLOBALIZATION ERA

Dr. Sunny Ummul Firdaus, S.H. M.H., Rudatyo, S.H. M.H., Usep Taryana, S.H.

The politicization of identity issues in an electoral momentum appears in Indonesia because it has a high degree of heterogeneity. This identity politics is formed as a manifestation of the interactions that occur between the values of democracy that become mainstream with local values or other values that have been formed as a social structure in society. The momentum is growing with globalization which makes it easier for people to carry out their social activities. This research will discuss how the politicization of identity in the implementation of elections in the era of globalization. Using literature review, it was found that the strengthening of identity politicization often happens because of the flourishing of organizations based on the interests of their identities. Oftentimes, what emerges is identity politics originating from issues of ethnicity and religion. This identity politics is also often populist narrated through the use of social media. In the long run, this phenomenon risks directing popular democracies into practices that tend to be racist, which in turn weakens the democraci order. As a result, social segregation is growing and will affect the national spirit that has been created.

INFLUENCE OF EGGSHELLS CONTENT ON PROPERTIES OF SINTERED GLASS COMPOSITE USING DIRECT SINTERING

Masturah Mesri, Zurina Shamsudin, Rafidah Hasan

The purpose of this study is to investigate the influence of eggshells as filler on the properties of green glass composite and different filler loadings. Green glass ceramic was prepared using soda lime silicate glass (SLSG), spent bleach earth (SBE) and eggshell (ES). It was believed, by increasing the percentage of weight filler, properties of the samples will be improved. The filler was divided into two types which are calcined ES and without calcined ES. The eggshell was calcined at 1000°C with 2°C /min and was hold for 1 hour to eliminate carbon dioxide in calcium carbonate compound. The particle size of all materials was approximately <45um. The green glass ceramic was formed using hydraulic dry pressing at weight fraction of eggshell loading of 3wt%, 6wt%, and 10wt%. The green glass ceramic sintered at constant temperature and heating rate were at 800°C and 2°C /min with holding time 1 hour. The green glass ceramic infrared spectroscopy (FTIR). The results indicated the glass transition temperature for SLSG is about 541.27°C, SBE is approximately 680.65°C and ES about 432.48°C. These results indicate that the weight percentage of filler increasing, weight loss will be decreased. The FTIR analysis confirmed the present of hydrogen bond between calcined eggshell and pure eggshell. The findings concluded that the suitable composition for ES filler loading can be controlled for alternative materials for structural applications.

INTERNATIONAL COMPARATIVE STUDY ON FIBER-REINFORCED-COMPOSITE'S RECYCLING PLANTS TOWARDS THE SUCCESSFULNESS OF CIRCULAR ECONOMY

Al Amin Mohamed Sultan, Fatimah Md. Radzai, Afifuddin Husairi Hussain, Paul Tarisai Mativenga

The significant growth of fibre-reinforced-composites businesses in critical sectors creates a big challenge to the world sustainability matters in term of massive waste that is generated. International pressure coupled with the landfill restrictions have made recycling a must. However, recent data shows that only 2% of the composites waste is recycled in the UK and the recycling plant itself is very limited in number and operating capacity. This paper investigated the essential information and key features regarding the recycling plant as the integral factors to the success of recycling activities. The operational performance, plants capability and investment data are studied based on the currently operating composite recycling plants internationally. A questionnaire survey was devised to capture the entire information from the key personnel at the recycling plant who is willing to cooperate before the descriptive statistical analysis was completed to present the finding in a meaningful way. The findings on the existing composites recycling plants are operating with limited capability at a commercial level. Based on the demand and supply and also the potential future expansion of the new recycling plants, better expertise might be available in a new location with a good capability that would significantly help to improve the recycling percentage of the composites waste. This study would be a reference case to the government, recycler and related stakeholders in establishing the recycling technology in different regions that would help to achieve the goal of circular economy.

LINEAR REGRESSION ANALYSIS OF LAMINATOR IN HAND LAYUP PROCESS

Nur Syafiqah Rayme, Seri Rahayu Kamat, Syamimi Shamsuddin

In ergonomics world, manual handling that include human labour is well-known to exposure of health impacts. In the manual hand layup process, the composite products were handcrafted by the laminators, hence, imposed a high risk of getting the musculoskeletal disorder. The laminators in the research subjects were prone to backache and mostly the absenteeism was related to it. The sample subjects taken were from 50th and 95th percentile of height in anthropometry and the process task was fixed per subjects. The research suggested a simple regression analysis to analyze the data obtained from the conducted experimentation which includes the variables as heart rate, muscle activity, duration of bending and the angle at the lumbar during bending. It was found that from the different percentile type of subject supper subjects and 100% from the 95th percentile of the subject sample. Nonetheless, in 25% of the accepted null hypothesis, there is a relationship between the heart rate reading with the angle at lumbar during bending.

ROBOTIC GRIPPING ANALYSIS OF FORCE SENSITIVE RESISTOR ON DIFFERENT RIGIDITY OF OBJECT

Sarmila Elangovan, Ahmad Zaki bin Hj Shukor, Muhammad Herman bin Jamaluddin

Human has the capability of sensing various types of inputs from its surroundings (environment). Sense of vision, audition, taste, olfaction, and touch are a multitude of sensor in the human body. Vision is sometimes assumed to be the most important human sensory modality which may underestimate the sensitivity of the sense of touch. Human is an expert and able to determine the object type or the specification of the object whereby they can also classify into categorize. In this paper, we focus on classifying the object with different rigidity. This paper presents the results of an experiment that investigates the detection of certain irregularities in the signal generated by a force sensitive resistor (FSR) to classify the object of different rigidity, from soft to rigid. The sensor is attached to the two-finger Kuka Youbot gripper and with single grasp the object. Thus the sensor will generate the signal and data that contain enough for classify the object.

SURFACE MODIFICATION OF TUNGSTEN CARBIDE USING ELECTRICAL DISCHARGE COATING WITH INCLUSION OF QUARRY DUST POWDER

Ching Yee Yap, Pay Jun Liew, Intan Sharhida Othman

In this paper, the surface modification of the tungsten carbide was carried out by using quarry dust powder mixed electrical discharge machining (PMEDM) method, which is also called as Electrical Discharge Coating (EDC). The characteristics of the quarry dust in terms of composition, particle size and micrograph were discussed in this paper. Moreover, the effects of the parameters (discharge voltage (Vd), peak current (lp), pulse on time (Ton) and pulse off time (Toff)) on the surface roughness and microhardness of the coating surface were also investigated by using Fractional Factorial DoE matrix. Results show that Ton poses the most significant effect on the Vickers microhardness of coating surface, whereas lp poses the most significant effect on the surface roughness. The optimum parameters were at Vd=40V, Ip=3A, Ton=300 µs and Toff=30 µs.

TRACK 1: SUSTAINABLE AND RESPONSIVE MANUFACTURING

SUSTAINING INTEGRATED MANAGEMENT SYSTEMS THROUGH ORGANIZATIONAL CULTURE TO ACHIEVE ORGANIZATIONAL EXCELLENCE: EXPERT INSIGHT FROM SELECTED CASES

Anas Nasir Daharat, Mohammad Kamil Sued, Zulkeflee Abdullah

With rapidly growing challenges in the area of quality management, the achievement of performance excellence through Integrated Management Systems has become even more critical. There is a need for careful harmonisation of management systems and the way things are done within the organisation (culture), to achieve excellence as a result. Despite coherent literature support on the need or a learning culture to facilitate the implementation of integrated management systems, specific evidence on how learning transpires to promote IMS towards organisational excellence is lacking. To critically explore this gap, three case study institutions in Abu Dhabi with a history of excellence awards, are considered. Findings based on expert interviews reveal crucial insight into the sustainability of quality systems within the bloodstream of the institutions by installing systems that retain quality as part of the organizational culture. Overcoming key cultural challenges remains critical for overall success. It is concluded that effective implementation of IMS through a learning culture, will facilitate organizational excellence.

THE IMPACT OF SOCIAL PRESSURE AND ECO-INNOVATION PRACTICES ON CHEMICAL FIRM'S SUSTAINABLE PERFORMANCE

Salmah Omar, Norfaridatul Akmaliah Othman, Norsiah Hami, Mastora Mustafar

Chemical sector plays important roles as they have strong linkages with other manufacturing sectors. The rapid development of chemical sectors in Malaysia has triggered the need to strengthen the management of chemicals to prevent incidents involving chemicals that can harm the safety and health of human and the environment. In such a scenario, chemical firms are facing pressure to be more sustainable. Social pressure could reflect a preference of citizens for environmental protection, and firms criticized for their environmental practices could respond by increasing their firm's sustainable performance. The purpose of this paper is to investigate the impact of social pressure on the firm's sustainable performance as well as the effect of eco-innovation practices by chemical firms in Malaysia. Data were collected based on the quantitative research method using self-administered questionnaires. Only 76 various chemical companies out of 500 selected companies replied their response. This study utilized PLS-SEM using SmartPLS 3.0 to analyze the data collected. The result shows that social pressure and eco-innovation practices positively and significantly affect sustainable performance.

THE INFLUENCE OF HEAT TREATMENT ON MECHANICAL AND MICROSTRUCTURE PROPERTIES OF INTERMETALLIC NICKEL ALUMINIDE NI3AI

T. Joseph Sahaya Anand, H.H.H. Afandi, S. Shariza, I.S. Othman, Sivaraos

Intermetallic Nickel Aluminides have been used in automotive industry with its superior characteristics such as lightweight, good resistance in high temperature and corrosion, and high oxidation. Mechanical studies including hardness carried out to confirm this Intermetallic Nickel Aluminides suitable for automotive wheel hub. The samples were heat treated for 400°C, 500°C and 600°C and observed Scanning electron microscope for their microstructural behaviour. X-ray diffraction was used to study the crystal structure of the alloy and grain size were calculated. The highest hardness value is the Ni3Al sample at 600°C which is 213.38 HV at 0.5 kgf. Meanwhile the lowest value is at non-heat treated sample with the value of 56.66 HV at 2.0 kgf load force. Similar trend also observed for Ni3Al grain size is at the largest at 600°C with 45.462 nm and the smallest during non-heat treated at 22.725 nm. This shows that temperature affects the materials characteristics.

TRACK 1: SUSTAINABLE AND RESPONSIVE MANUFACTURING

THE INFLUENCE OF REGULATORY PRESSURE IN SHAPING CONSTRUCTION FIRMS' DECISION TO ADOPT GREEN INNOVATION

R. Hashim, S. Cooper

The construction industry plays a vital role in meeting the needs of society and enhancing the quality of life. It contributes to a better standard of living for people and increases the economic output of countries all over the world. However, its activities are considered as making a major contribution to environmental problems. From emitting greenhouse gas to contributing waste, construction is not necessarily an environmentally-friendly activity. These conflicting issues have pressured the industry to intensify its effort and move towards sustainable construction. As the government in the United Kingdom has set targets towards achieving sustainability by 2050, it is necessary for the construction industry to play its role to protect the environment by engaging in environmental-related practices. The aim of this study, therefore, is to examine how far the pressure from regulators could influence Scottish construction firms to adopt green innovation. Based on the qualitative findings, it shows that current pressure from regulators has not encouraged many building firms to adopt green practices. In fact, the low levels of adoption represents the number one concern within the industry. The findings of this study also have implications, particularly for policy makers, to explore strategies and more stringent regulations that could encourage more firms in the construction sector, to seek to reduce their impact on the natural environment. As the government takes a leadership role in this regard, participation from other stakeholders within the industry is of importance to bring about wider adoption of green practices.

TRACK 2: INNOVATIVE SOFTWARE SYSTEM AND ICT

DETECTION & MONITORING OF FIBER FAULT USING INTERNET OF THING (IoT) FOR FIBER TO THE HOME (FTTH)

Siti Asma Che Aziz, Adib Othman, Muhammad Ridwan Zainul Ariffin, Noor Azwan Shairi and Win Adyanshah

This project was done by using Arduino UNO for an intelligent fault detection system for optical fiber communication. The fault will be detected and the received power supply in optical fiber will be monitored while receiving voltage supply for Arduino UNO. This project was using Arduino UNO which consists of Atmega 328 microcontroller with the sensor unit to detect and monitor the voltage supply. The light sensor output is Designed to monitor the received voltage supply of each line connection. The sensor unit consists of an LDR through an operational amplifier. Therefore, if there are any changes in voltage supply for the line connection, the fault message will be detected and displayed on the LCD interfaced with Arduino UNO and at the same the data and time of fault will be transferred to the IoT for the monitoring.

GRAPHICAL PASSWORD AUTHENTICATION USING IMAGE SEGMENTATION FOR A SECURE PERSONAL MOBILE PLANNER SYSTEM

Hui Hui Phang, Mohd Rizuan Baharon, Syarulnaziah Anawar, Ariff Idris, Hairol Nizam Mohd Shah and Aine Mac Dermott

A password authentication mechanism is the most common method for authentication. However, some of these mechanisms such as textual or alphanumeric password have their own weaknesses. In addition, critical systems such as a personal mobile planner system require a strong authentication mechanism to protect users' information from being disclosed to the outsiders. Therefore, a graphical password authentication using image segmentation is proposed in this paper. This graphical password leverages image segmentation approach for simplicity and easy to memorize. The paper proposes a secure authentication approach by providing three security levels. The proposed authentication method is implemented and tested in a personal mobile planner system. This system allows a user to choose the segmented image to be a password. With the aid of such a system, the proposed authentication mechanism is validated. The result shows that the proposed authentication mechanism offers better advantages and solve some limitations in the existing textual or alphanumeric password.

OVERVIEW ON ENVIRONMETAL CONSEQUENCES TRIGGERED BY MOBILE PHONE WASTE IN MALAYSIA

Taher Khalaf Barakat Ayoub, Md Nizam Abd Rahman, and Effendi Mohamad

As the technology advancing, industrial waste is increasing. Abundant reports have shown that the e-waste will soon be the most significant portion of the total waste. Among the e-waste categories, mobile phone component is the largest. The mobile phone is not only a normal waste but it also constitutes very toxic materials and heavy metals. This development can result in a serious hazard to human health and the environment. The United Nations, as well as other local government, have issued strict legislation to regulate this industry. However, awareness and regulate on regarding this matter in Malaysia is still lacking. Serious steps in managing phone waste in regard to the collection, segregation, and recycling need to be taken. Best known practices on mobile phone waste management need to be studied. The best model should be adopted and adept to suite local requirement in Malaysia. Initiatives in awareness, technology used in collection centres, policies, and regulations regarding to mobile phone waste should be the area of focus. In this report, an overview that sheds light on the current situation in Malaysia regarding to mobile phone ewastes is presented.

ABSTRACT

TRACK 3: SOCIAL IMPACT ON INNOVATION AND TECHNOLOGY

ANALYSIS OF OBSTACLE FACTORS OF THE LEGAL PROTECTION PROGRAM OF EMPLOYMENT SOCIAL SECURITY FOR INFORMAL WORKERS (CASE STUDY IN CENTRAL JAVA PROVINCE)

Siti Ummu Adillah, I Gusti Ayu Ketut Rachmi HandayanI

The Central Statistics Agency (BPS) recorded that in Central Java in August 2018 as many as 6.74 million people (39.06 percent) work in formal activities, and as many as 10.51 million people (60.94 percent) work in informal activities. During the last year, the amount of informal workers rose from 60.29 percent in August 2017 to 60.94 percent in August 2018. Most of them are informal workers whose income is uncertain, so priority of their work is how to make money to meet everyday life. It is rarely of them who have thought to become employment social security participants. The research method used in this study is juridical normative. Data sources used were secondary data covering primary legal materials, secondary legal materials and tertiary legal materials. Analysis technique used qualitative analysis methods with interactive analysis model. The results show that the existing conditions in Central Java represent very few informal workers become participants of employment social security voluntarily without sanctions for non-participation of employment social security. Meanwhile the government has not allocated the budget to provide employment social security yet for weak and poor informal workers. This will certainly make it informal workers whose conditions are weak become weaker or increasingly less well-off economic and social, when informal workers experience economic risks and other social risks, hence the condition of informal workers will be increasingly worse off and not prosperous. However, the informal workers really are State's asset, since they still exist and is still able to build and sustain the Indonesian economy when Indonesia experiences an economic crisis. Obstacle factors of employment social security law protection programs for informal workers in Central Java Province are low levels of education of informal workers, low and uncertainty income, reluctance to pay contributions and high unemployment in Central Java.

EXPRESSIVE SPEECH ACTS AS CONVERSATIONAL INNOVATION OF RADIO ROADCASTERS IN SURAKARTA

Wiwik Yulianti, Sumarlam, Muhammad Rohmad, Agus Hari Wibowo

Radio is currently still considered as a renowned mass media due to its innovation and creativity in maintaining and expanding its existence through the current trends. Together with the trends, radio broadcasters are required to elevate their creativity as an attempt to secure the public interest to the radio programs. The study aims to explore the expressive speech acts in the radio visitation programs in Surakarta. It adopts a Content Analysis as the data collecting technique which is followed with the recording, listening, noting, and interview. Meanwhile, the analysis utilizes a Pragmatics Matching method through a Contextual Approach. In brief, expressive speech acts mainly function to express the speaker's psychological state and convey the evaluation to the listener. In particular, the evaluative function is known as the expressive pragmatic function. The findings reveal various forms of expressive speech acts used in the radio visitation programs, including admiration expressions which are uttered for various purposes.

OPTIMAL DISTINCTIVENESS OPEN INNOVATION: WHAT IS IT? HOW TO MEASURE IT? A LITERATURE REVIEW

Luhgiatno Luhgiatno and Christantius Dwiatmadja

This study develops the concept of optimal distinctiveness open innovation and propositions related to the concept. The approach in this research is the development of propositions. The concept created is optimal distinctiveness open innovation (ODOI), which is a novelty in this research. This research also develops indicators for ODOI. For future research, it is expected that the propositions made can be examined empirically.

TRACK 3: SOCIAL IMPACT ON INNOVATION AND TECHNOLOGY

RECONSTRUCTION OF SETTLEMENT MODELS OF VIOLENCE AGAINST WOMEN THROUGH DEVELOPMENT OF RESTORATIVE JUSTICE

Gayatri Dyah Suprobowati, Rosa Nikmatul Fajri , Norida Abdullah

The objective of this research is to explain changes in the criminal justice system in resolving violence against women by using a restorative justice model. The measure of the success of law enforcement which has so far only been marked by the conviction of a criminal, is no longer relevant to the growing age. The main thing is how law enforcement can accommodate the values of justice that develop in the community, especially for women as victims. This research is a normative study using a legal and conceptual approach. Data obtained by literature study on matters relating to the subject matter of the study. The results of the study show that cases of violence against women always increase every year. This is not balanced with ideal protection, because the criminal justice system still aims to obtain procedural justice, without regard to justice for victims. The need for restorative justice is intended so that women as victims can obtain justice because the settlement of cases is carried out through mediation, so that an agreement arises that can restore the situation of the victim.

REGULATION ON THIRD PARTY FUNDING IN ARBITRATION IN INDONESIA (COOPERATIVE STUDY IN SINGAPORE AND HONG KONG)

Anis Rifai, Dewi M Djukardi, I Gusti Ayu Ketut Rachmi H, Endang Sumiarni

Arbitration is an alternative dispute resolution institution outside of judicial practice. Arbitration Institutions have advantages in dispute resolution, such as arbitration judges are temporary and are neutral parties. Then, the duration of the dispute resolution efforts is faster when compared to the practice in the judiciary and the arbitral award has a permanent and binding legal force. Therefore, arbitration dispute resolution efforts are more desirable in resolving disputes, especially related to disputes in companies both national companies and multinational companies. However, the costs of taking efforts to resolve the dispute through arbitration require a very high initial cost as case registration. Arbitration such as in Singapore and Hong Kong has accommodated regulations concerning the use of Third-Party Funding in an attempt to resolve disputes through arbitration. However, in the current Indonesian laws and regulations, no one has regulated the practice of Third Party financing institutions in arbitration through comparative studies in Singapore and Hong Kong. As for in this study the author uses normative juridical legal research methods.

TRACK 3: SOCIAL IMPACT ON INNOVATION AND TECHNOLOGY

THE CONCEPTUALIZATION OF STRATEGIC TALENT MANAGEMENT FOR OIL AND GAS COMPANIES IN THE UAE

Ibraheem Al Hammadi, Safiah Sidek, Samer Ali Al-shami

Issues concerning workforce have been a concern in Oil & amp; Gas sector, in which the UAE is one of the main players in this industry globally. Most of the local companies are heavily depending on the knowledge and skills of foreign experts for its competitive advantage. In this case, jobs roles localization (Emiratization) has become an imperative and efforts need to be done to lure the local workforce to be part of the local companies. Therefore, there is a need to propose a Strategic Talent Management (STM) so that the local employees can contribute productively to the economic growth of the country. This study aims to address the issues of the shortage of the skilled domestic workforce by proposing a STM practices to enhance job performance among local employees in Oil & amp; Gas companies of the UAE. As the initial stage of the investigation, this paper presents the conceptualization of the strategic talent management and its relationship to job performance. Drawn from the analysis of the existing literature, dimensions of strategic talent management that have relationship with job performance have been identified, namely, the career development, talent attraction and selection, talent acquisition, talent recruitment and mentoring and coaching. The conceptualization of the strategic talent management will be used as the constructs for further investigation of the role of strategic talent management that can enhance the job performance of the local employees in the oil and gas companies at the UAE.

A LITERATURE REVIEW ON THE IMPACT OF WORK ENVIRONMENT AND LEADERSHIP STYLES ON JOB PERFORMANCE IN UAE

Maktoum Alkaabi, Norliah and Maktoum

This research reviewed literature related to the impact of work environment and leadership styles on job performance in UAE. In the curse of this review, it was figured out that, work environment tremendously affects the job performance of an employee in many ways, likewise leadership style. Both leadership style and work environment impacted on job performance in UAE based on the reviewed literature.

AN ANALYSIS OF THE EFFECT OF MARKETING MIXES ON THE PURCHASE DECISIONS OF ANGKRINGAN MODERN (STUDY OF PURCHASES IN ANGKRINGAN MODERN IN SURAKARTA)

Marwati, Fithri Setya, Aryati, Ida, Damayanti, Ratna

The research conducted aims to analyze the effect of the Marketing Mix consisting of products, prices, locations, and promotions partially or simultaneously to Purchase Decisions in Modern Angkringan in Surakarta. The population in this study were 50 consumers who bought at modern angkringan in Surakarta. This study used primary data collected using questionnaires about products, prices, locations, promotions. Data collection tools were adopted from previous researchers conducted by The Ninh Nguyen1, at.all (2015), Selim Ahmed and Md. Habibur Rahman (2015), and Wannatuch Juangduang at.all (2014). Meanwhile, the sample was taken based on Hair et al. (1998) guidelines, a minimum of 5 times the variables studied and a maximum of 10 times the variables studied. This study applied multiple linear regression analysis. Based on data analysis, it can be concluded that the Marketing Mix consisting of products, prices, is indicated by the value of R2 = 89, 9%, the percentage of the effect of the Marketing Mix consisting of products, prices, on Angkringan Modern is 89.9%. Another variable that explains the variation in the level of the overall corporate image of a hotel is 11.1%.

ANALYSIS OF MARKETING-MIX 4Ps ON STUDENT DECISIONS CHOOSING THE STUDY PROGRAM OF MANAGEMENT

Rahayu Triastity; Galih Ayu Sartika; Supawi Pawenang

The purpose of this study was to study most of the marketing mix elements consisting of prices, products, places, promotions on student decisions to choose management programs at the Faculty of Economics, University of Slamet Riyadi Surakarta, both partially and simultaneously. The research uses taking regrets, with a data sample of 100 students taking Management study programs at Slamet Riyadi University Surakarta. The results show that all 4P marketing mix variables significantly influence the decision to choose management study programs, both partially and simultaneously. The complexity of significantly influence the decision to choose management study programs, both partially and simultaneously. The combination of the four has a determination of up to 81.1%.



ANALYSIS OF COOPERATIVE MARKETING STRATEGY FOR ORGANIC FARMING PRODUCT

Suswadi, E.S. Rahayu, M. Harisudin and S. Anantanyu

Healthy lifestyle awareness is a growing trend in Indonesia. Consumers shift to organic products as a way to meet optimal nutrition and as a form of concern for personal and family health. Cooperatives as one of the organic product marketing institutions need a development strategy to survive and compete in the market. This research was conducted by providing the business development strategy for "Tresno Tani APPOLI" (Boyolali Rice Farmers Alliance) Multipurpose Cooperative Boyolali, located in Cermo Village, Sambi District, Boyolali Regency, Central Java. This research used IFE, EFE, and SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis tools. Based on the SWOT analysis, an alternative strategy that can be carried out is giving socialization to attract farmers to switch to organic farming, maintain and improve quality and service, improve promotion and management, develop post-harvest processing technology, conduct investigations on potential partners, and develop research and development divisions.

BUILDING THE ENTREPRENEURSHIP SPIRIT OF VOCATIONAL SCHOOL STUDENTS THROUGH MATHEMATICS PROBLEM BASED LEARNING: A REVIEW

Diah Ayu Kurniasih, Pris Priyanto

Entrepreneurship is one of factor that contribute to the nation's economic development. The entrepreneurship education began to be developed in various countries because it is a means to educate and develop the students for entrepreneurship and to equip them with the skills and competencies needed to compete in the global market. The Entrepreneurship education is not only as the responsibility of entrepreneurship subject teachers but there must be support from other subjects. Mathematics is one of the subjects that can develop thought processes in solving problem and be able to assist student in developing problem solving both in real world problems and in mathematical problems needed in development of entrepreneurial spirit. Mathematics is needed that is able to contribute in building the entrepreneurial spirit of the students, among them are learning mathematics problem based learning. Consider that there have been extensive studies related to learning mathematics so that mathematics problem based learning to build student's success in learning mathematics to review the mathematics problem based learning to build entrepreneurial spirit of vocational high school students based on 20 papers. This review found that the majority of mathematics problem based learning to build entrepreneurial spirit of vocational high school student's success in learning mathematics problem based or 20 papers. This review found that the majority of mathematics problem based learning to build the entrepreneurial spirit of vocational high school student's success in learning mathematics problem based proposed is the mathematics problem based learning to build the entrepreneurial spirit of vocational high school student's success in learning mathematics problem based learning to build the entrepreneurial spirit of vocational high school students.

EMPIRICAL INVESTIGATION OF ADAPTATION TO FUTURE CHANGES AND PRODUCT INNOVATION CAPABILITIES ON THE MARKETING PERFORMANCE

Sudarwati, Wisnu Untoro, Ahmad Ikhwan Setiawan, Intan Novela Qurrotul Aini

This study aims is to know the influence of product innovation capability on performance marketing through the mediation of adaptation to the future change. On this model there are several supporting variable, i.e. accessibility of new technologies and resource exploration products. In this study used a sample of 202 UMKM Batik Solo Raya, the sampling technique using simple random sampling technique. Testing data analysis using PLS (Partial Least Square) with the software WarpPLS 5.0. The findings in this study are aksesbilitas new technology a positive and significant effect against the ability of innovation of products. The power of positive exploration of influential products and significantly to the ability of innovation to future changes aren't able to moderate the relationship between ability of product innovation and performance marketing. Limitations of this research this research respondents are owners or managers of UMKM batik mostly perform tasks as managers and employees so very busy.

ABSTRACT

GENDER PERSPECTIVE AND STUDENTS' ENTREPRENEURIAL INTENTION FACTOR BY INDONESIAN AND MALAYSIAN STUDENTS: A COMPARATIVE STUDY

Suci Purwandari, Safiah binti Sidek, Sayed Samer Ali Hussein Al-shami, Ratna Susanti

The importance of entrepreneurship is a phenomenon for academics with their activities in the university environment. This study aims at identifying various students' entrepreneurial intention factors viewed from Indonesian and Malaysian higher education students' gender perspective. In this study, the data are collected from the literature review in the form of searching for ten articles from the Indonesian perspective and ten articles from a Malaysian perspective related to discussions about student intention in entrepreneurship. Based on the results of the literature review, it is concluded that Indonesian and Malaysian students have similarities and differences in entrepreneurial intention, including the acquisition of Entrepreneurship Education, perceived desirability, perceived feasibility, and interest in entrepreneurship. Based on the gender perspective, Indonesian and Malaysian students also have similarities and differences in interest, including gender, age, parents' professional background, and social and cultural factors between Indonesia and Malaysia aspects.

INTELLECTUAL CAPITAL, STRATEGIC ORIENTATION AND PERFORMANCE: STUDIES ON SMALL BUSINESSES TOURISM IN INDONESIA

Junaedi Junaedi, Suci Purwandari

The purpose of this study was to analyze the effect of intellectual capital and strategic orientation on the ability of innovation and the performance of small business tourism in Indonesia. The population in this study consisted of the owners of small business tourism in Indonesia. The sampling method employed purposive sampling. Methods of collecting data used questionnaires and data analysis methods used Path Analysis. The dependent variable in this study was the performance of small businesses. The mediating variable was the ability of innovation, and its independent variable was strategic orientation. The results of this study indicate that intellectual capital has a positive and significant effect on the ability of innovation. Strategic orientation has a positive and significant effect on the ability of innovation and the performance of small businesses. The implication of this research is to improve performance in which small businesses must have the ability of innovation and good marketing strategy. The ability of innovation can be developed from the knowledge possessed by small-scale entrepreneurs. Originality, intellectual capital and marketing strategies carried out by small businesses have less concern for researchers, even though these are important variables that support the performance of sustainable small businesses.

KNOWLEDGE MANAGEMENT PRACTICES IN DEVELOPING COUNTRIES

Suriati Akmal, Mubarak Alrashdi, Samer Ali Al-shami

Studies that investigate the KM and organizational performance are few. The purpose of this study is to review the literature and review the articles related to the effect of knowledge management (KM) on organizational performance. A systematic literature review was conducted, and three screenings were performed to refine the articles. Article were extracted from Scopus and Web of Science (WoS). A total of 29 articles were considered to meet the selection criteria was reviewed, analyzed, and important information was extracted. A frequency analysis was conducted on these articles. The findings indicated that majority of the articles were extracted from WoS and published between 2015-2017 in Malaysia and Taiwan. The reviewed studies were conducted on manufacturing and technological industries using quantitative method. Sample size in most studies is less than 200 and data was analyzed using first generation of data analysis. Findings were discussed, and it was recommended for future studies to increase the sample size and use more frequently structural equation modeling.

ABSTRACT

TRACK 4: ENTREPRENEURSHIP AND MANAGEMENT STUDIES

MEASURING WEBSITE QUALITY THROUGH SERVICE QUALITY AND USER SATISFACTION DIMENSIONS: A CONCEPTUAL FRAMEWORK

Mohammed Albalushi, Zanariah J, Indra Devi S

The study aimed at developing a conceptual framework for measuring website quality of public sector organisation through users' feedback on service quality and satisfaction. The methodology involved a desk review of previous studies on website quality, service quality, user satisfaction and website quality evaluation models. The review highlighted the need for further research to explore public organisations' website quality from the users' perspective. A conceptual framework was proposed with the aim of exploring website quality using SEVQUAL and User Satisfaction models.

MOTIVATION FACTORS THAT INFLUENCE TOURISTS LOYALTY TO HALAL TOURISM DESTINATION. A REVIEW PAPER

Abdulla Al-hammadi, Samer Ali Al-shami, Abdulhadi Al-Hammadi, Safiah Sidek, Muliati Sedek

The tourism business has become one of the greatest sources for the country economy due to its significant effect on GDP and job creation. However, nowadays, this industry faces a massive competition either at international level or regional level. Thus, many countries are struggling hard to innovate their tourism products and services that meet customers' loyalty with aiming to maintain a competitive advantage in the arena of the global market. The religion is two important factors that play a significant role in tourism market due to its direct effect on tourists' behavior towards a particular destination and loyalty. For example, Muslims form almost a quarter of the world population and they have their own culture and preferences that affect their motivation factors to visit a particular destination that offers Halal products. Even though Halal tourism destination has recently witnessed rapid growth, the literature paid attention to factors affecting tourism destination in general, meanwhile, Halal tourism has not yet received adequate attention. Therefore, through review literature. this paper aims to identify the motivation factors that influence tourists to select Halal tourism destination. It also aims at providing a conceptual framework that explains the relationship between motivation factors and tourists' loyalty. The finding of this paper indicates that there are four motivation factors that influence tourists' loyalty to Halal tourism destination namely social Interaction, knowledge, adventure, and escape.

ONLINE BUSINESS BARRIERS: PERCEPTION OF INDONESIAN SMALL FAMILY BUSINESS

Anita Wijayanti, Massila Kamalrudin, Safiah Sidek, Ratna Damayanti, Hendrik

The aim in this study is to define the underline of barrier perception of online business adoption in Indonesia small family business. Research has identified, that the different results in the different locations. Consequence, the barrier of adoption online business, depends on location, type and scale of the company. Based on an analysis of the results of research in several countries found 11 factors the barrier to online business adoption. This study is an empirical study. Questionnaires have been distributed to small family businesses that do not have an online business. Data is processed and analyzed by factor analysis. This study has identified a barrier to online business adoption for the small family business. They are online business is not suitable for small family business, online business infrastructure and the readiness of the business model for online business adoption.



P2P LENDING AS AN ALTERNATIVE FUNDING: A PERSPECTIVE OF SMEs

Damayanti, Ratna, Ali Hussein Al-Shami, Samer, Marwati, Fithri Setya

The P2P lending platform is one of the funding alternatives that can minimize the gap between SMEs' business credit transactions and banks or financial institutions that use traditional mechanisms. This platform is an alternative for entrepreneurs SMEs who have limited access to funding due to the characteristics of complex SMEs. The method used in this study uses a literature review that discusses the characteristics of P2P lending that has developed in the community. From the results of literature collection, we will sort out the disadvantages, advantages and risks of P2P lending so that it can provide an overview for the owners and managers of SMEs before deciding to use this platform. From the literature review, it can be seen that like other market phenomena it turns out that even though P2P lending still has weaknesses, this does not reduce the actual benefits of providing funding, especially for SMEs. P2P can take the role of setting up SMEs from creditworthy to bankworthy. P2P loans will increase the capacity of SMEs, so that it will become bankable in the future to access bank credit platform.

PERFORMANCE ASSESSMENT OF TECHNOLOGY COMPANIES IN MALAYSIA WITH ENTROPY-VIKOR MODEL

Lam Weng Siew, Liew Kah Fai, Lam Weng Hoe

In this World Economy and Development, the development of the country can be enhanced through continuous improvement and development of the technology. In Malaysia, the performance of technology companies should be focused since it contributes to the economic development of the country. The objective of this paper is to propose a conceptual framework to assess and evaluate the financial performance of the technology companies in Malaysia with Entropy-VIKOR model. In this study, 17 companies from the technology sector in Malaysia are assessed from 2012 to 2017 by considering important financial ratios such as debt to equity ratio, debt to assets ratio, return on equity, return on asset, earnings per share and current ratio. The results show that the top five outstanding companies are MPI, GTRONIC, ECS, INARI and ELSOFT. The significance of this study is to determine the financial performance and ranking of the technology companies with the proposed conceptual framework based on Entropy-VIKOR model.

RISK-TAKING BEHAVIOR TOWARDS THE INTENTION OF SANTRI ENTREPRENEUR IN THE THEOPRENEURSHIP PESANTREN

Suliswiyadi, Agus Miswanto, Marlina Kurnia, Irham Nugroho

The background of the problem of this research is the phenomenon of santri entering pesantren not hoping after graduating to get a job. In the pesantren they focus on studying religion, while the issue of sustenance is the will of God for those who try. This belief attitude encourages santri to have the courage to carry out activities to create risk-facing behavior in daily life. The aim of this study are: 1) to study the risk-taking behavior of santri in pesantren, 2) to determine santri motivation (entrepreneurial intentions) in pesantren, and 3) to examine the effect of risk-taking behavior on the intention of santri entrepreneurs in theopreneurship pesantren. The research method is qualitative and quantitative descriptive by conducting a survey of pesantren students from several pesantren in Central Java. The results of the study concluded that the risk-taking behavior variable had a positive effect on the variables, which meant that the students' interest in entrepreneurial readiness, which means that the greater the entrepreneurial intention, the more tangible actions of the santri business will be realized; and the theopreneur variable has enthusiasm in influencing the intention or interest of santri entrepreneurs in boarding schools. Thus the religious spirit in the pesantren forms the mindset of the santri in various activities. In theory, the mindset of the santri is influenced by the religious values they believe in.

THE CONTROL FACTORS TO MANAGE THE SITE ERRORS OF RADIOTHERAPY DELIVERY

Hendrik, Massila Kamalrudin, Mohamad Razali, Anita Wijayanti, Supawi Pawenang

Radiotherapy was one of the modality of cancer disease which had been recommended by the ISCRO-USA and WHO for every cancer patient. There were two main techniques of radiotherapy delivery, namely teletherapy and brachytherapy. Yet, radiotherapy remained as a high risk treatment, especially the site error of radiotherapy delivery, due to its sophisticated and complex technology and one of the control factor strategies to manage the site error of radiotherapy delivery theoretically was verifying the equality of the irradiation field and the accuracy of the irradiation targets by using a portal imaging. Hence, the objectives of this study were to define the factors that theoretically had significant relationships to the equality of the irradiation field and accuracy of the irradiation fulled influence the certainty of the irradiation using telecobalt60 and the opinions of some experts in radiotherapy field about the factors, as the control factors to manage the site error of the radiotherapy delivery. The results showed that the scheme, body size, and patient positioning factors had statistically significant relationships to the equality of the patient, set-up of the teletherapy device, calibration the teletherapy device, quality of the conducting human resources, and mechanical malfunctioning of the teletherapy device factors had statistically significant relationships to the accuracy of the irradiation target. Therefore, all the factors can be the control factors which need to be concerned to manage the site error of the radiotherapy device, calibration the teletherapy device factors had statistically significant relationships to the conducting human resources, and mechanical malfunctioning of the teletherapy device factors had statistically significant relationship to the accuracy of the irradiation target. Therefore, all the factors can be the control factors which need to be concerned to manage the site error of the radiotherapy delivery.

THE EFFECT OF SOCIAL NETWORK SITES ON THE HOTELS' INNOVATION CAPABILITIES AND PERFORMANCE. A REVIEW PAPER

Abdulhadi Al-Hammadi, Samer Ali Al-shami, Safiah Sidek, Abdulla Al-hammadi, Muliati Sedek

Social Network Sites SNSs plays an important role in knowledge transfer which can be used in several applications. The past literature paid attention to the role of SNSs on communication and social relationship management in general and marketing activities such as promotion in particular. However, SNSs are important sources of knowledge that can be used not only in social network management or marketing activities but also in the development of innovation capabilities of the firms. Recently, few studies indicate that SNSs are important sources for innovation development and firm performance, but with slight explanation in how SNSs influence innovation capabilities. Therefore, this study aims to explain the role of SNSs on innovation capabilities and Hotels performance. This study also intends to propose a framework that explains the interaction between SNSs and hotels innovative activities and performance.

ABSTRACT

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TRACK 4: ENTREPRENEURSHIP AND MANAGEMENT STUDIES

THE FINANCIAL REPORT MANUAL RECORDING REVIEW OF THE INDONESIAN RED CROSS OF REMBANG REGENCY IN 2018

Rosa Nikmatul Fajri, Endang Masitoh Wahyuningsih, Gayatri Dyah Suprobowati, Dr Nor Azah binti Abdul Aziz

The recording process as in the financial statements is indeed a big scourge to be carried out in accordance with the applicable financial accounting standards caused by unprepared human resources to the unpreparedness of the technology it uses. This also expressed in the research conducted by Soleh states that in the process of recording, managing and preparing financial reports for the Indonesian Red Cross Blood Transfusion Unit which can still be said to be semi computerized because it has used computers as a travel medium but there is no system for the process. Of course it still has many disadvantages, one of the biggest possibilities is human error. The financial statements reported is useful for providing information on the financial position of an organization for management and leadership of the organization in supporting decision-making as well as beneficial for outside stakeholders who are interested in such as investing in shares investment. Therefore it is required to provide accurate, precise and clear financial statements. The research written in the form of a case study is one of the studies applied to applied research with intensive focus and this study was conducted to find out the occurrences of events. Instead of case studies must be able to explain the whole symptoms or factors so that a general description of the cases studied is obtained and clarified the cases that occur can be given a logical solution. And then, the researcher will make in-depth observations to look for information addressed to the institution or someone who knows this condition, in this study usually in the form of descriptive approach. Based on the case, the researcher recommends 1) to immediately make improvements to the existing financial statements by adjusting the existing provisions at the Rembang Regency Indonesian Red Cross so that the recorded financial statements can be understood comprehensively and provide functions as they should; 2) hope that all supporting documents are always neatly compiled so that the data can be used as a basis for preparing financial statements and 3) distinguish between RAB and budget realization reports so that they are not confusing when evaluating.

THE GROWTH AND CHALLENGES OF SMEs IN ABU DHABI

Saeed Al-Ali, Safiah Sidek, Samer Ali Al-shami

Small and medium size enterprises (SMEs) are increasingly becoming important due to their significant impact on the economic growth of a country. Specifically, in Abu Dhabi, the capital city of the United Arab Emirates, the SMEs have become the backbone of the economy of the city. Regardless of their significant economic contributions and exponential growth, the SMEs are facing many challenges. Contextualized within the business environment that emphasize on innovation as one of the ways to enhance competitive advantage, this paper presents an overview of the growing landscape and the challenges faced by the SMEs in Abu Dhabi. In this regard, focusing on the need for the SMEs to be innovative, the business process management approach will be proposed. This discussion serves as a contextual background for a research that aims to investigate the adoption of business process management as an approach to enhance innovativeness of the SMEs, which eventually facilitate the achievement of competitive advantage among the SMEs.

THE IMPACT OF SUSTAINABLE MANUFACTURING PRACTICES AND SUSTAINABLE MAINTENANCE ON ECONOMIC SUSTAINABILITY: A CONCEPTUAL FRAMEWORK

Yousif Munadhil Ibrahim, Norsiah Hami, Fadhilah Mat Yamin, Shafini Mohd Shafie, Susan Sabah Abdulameer, Mohd Razali Muhamad

In today's changing global environment, companies; interest in achieving economic returns has become a critical factor in sustainability. Therefore, this study aims to achieve economic sustainability (EcS) by providing a proposed framework that integrates sustainable maintenance (SMA) into sustainable manufacturing practices (SMPs). Effective adoption of SMPs and SMA has a significant positive influence on EcS. Nonetheless, there are limited studies conducted on integrating SMA into SMPs and how it could impact EcS. The theoretical contribution of the present study depends mainly on expanding existing knowledge about highlighting the moderating role of SMA on the relationship between SMPs and EcS.

THE ISSUES AND STATE OF BUSINESS BATIK INDUSTRY TO MAINTAIN THEIR SUSTAINABILITY IN SRAGEN, INDONESIA

Bakri, Solichul Hadi Achmad, Massila binti Kamalrudin, Suwardi, Grenjeng Siwal Kaliwungu, Noorezam Yusop, Safiah Sidek

In this globalisation era that is marked by very stiff competition on all front, empowerment of Small and Medium Businesses (SMEs) is crucial for them to be able to face any challenges globalised market brought with. Therefore, failure to innovate would highlight further the challenges these businesses face including stiff competition from bigger batik businesses. The ability to innovate quickly is crucial in furthering the development of creative industry of batik. This paper aims to discuss issues faced and state of their business of our respondents that are made of batik entrepreneur in SRAGEN, Indonesia. This study is qualitative in nature, with analysis done on interview result of interviewing nine batik businessman in SRAGEN. The author hopes that this paper could help in gaining a better understanding of what are the state and issues faced by batik business owners in SRAGEN. The challenges we would be discussing consists of three components namely general background, current state of business, and assistance required and future planning. Based on the analysis identified from these three components, this study found that in order to flourish, businesses do not only require assistance from both local government and local university but also would need to have future planning that involve innovation especially in the area of Internet of Things (IoT) application that would specifically be designed to support product development and promotion as well as to increase monthly turnover, reduce the assistant from other sector and maintain the sustainability of batik industry, in short the issues they are currently facing.

ABSTRACT

THE RESPONSIBILITY OF INDONESIA TOWARDS HUMAN RIGHTS VIOLATION CARRIED OUT BY CORPORATION

Isplancius, Tri Lisiani Prihatinah, Nur Wakhid

Indonesia as a welfare State is obliged to provide protection to every individual in fulfilling their human rights. For the fulfillment of human rights, the State carries out international relations with countries especially ASEAN. Transnational corporations have a large role and bargaining power, especially in strategic fields in the economy and technology that can influence the policies of countries in the Era of the ASEAN Economic Community. One of the big challenges facing Indonesia today is the ASEAN Community which is supported by three pillars, namely the ASEAN Political Security Community, the ASEAN Economic Community, and the ASEAN Socio-Cultural Community. The problem that will arise here is how the State is responsible for human rights violations carried out by corporations and how the law is enforced so that corporations actions can be responsible either in national or international levels. The methodology used in this paper is the study of literature with qualitative analysis. The purpose of this paper is to find out Indonesia's responsibility in the human rights violations carried out by corporations. Based on the discussion above, it can be concluded that Indonesia's responsibility in the human rights system is as a duty bearer so that it must respect, protect, fulfill, promote human rights to its people and punish corporation that violates human rights. Corporate actions that violate human rights can be punished if first formulated in national law and international law as a crime according to the principle of legality.

THE ROLE OF ENTREPRENEURSHIP IN THE MEDIATED EXPERIENCE OF INTEREST TOWARDS SOCIAL ENTREPRENEURSHIP AND THE CHARACTERISTICS OF THE INDIVIDUAL AS THE MODERATE VARIABLE (STUDY IN KAMPUNG BATIK LAWEYAN SURAKARTA)

Ibnu Suryo, Ida Aryati, Sigit Santosa

The research aims to find out and describe the experience of direct effect on interest in entrepreneurship, experience direct effect on social entrepreneurship, entrepreneurship interest directly influential on social entrepreneurship effect on social entrepreneurship with mediated entrepreneurship interest, the interest of entrepreneurship effect on social entrepreneurship with mediated entrepreneurship. This research uses a quantitative design in the form of a survey. The population of this research are all entrepreneurs who exist in Laweyan, Surakarta. Sampling techniques using incidental sampling approach. Determines the number of samples using his opinion Lemeshow, then the sample used is 100 respondents. Analysis tools that are used with multiple linear regression and the sobel test. The results of this research is the experience effect directly on the entrepreneurship interest, experience direct effect on social entrepreneurship, entrepreneurship interest directly influential on social entrepreneurship entrepreneurship interest directly influential on social entrepreneurship, experience of effect directly on the entrepreneurship interest, experience direct effect on social entrepreneurship, entrepreneurship interest directly influential on social entrepreneurship entrepreneurship interest.

THE THREE PILLARS OF INDUSTRIAL ECOLOGY KAMPOENG BATIK LAWEYAN IN SURAKARTA

Siti Maryam, Evi Gravitiani, Joko Sutrisno and Endang Siti Rahayu

The research about the development of the region on Batik industry Kampoeng Batik Laweyan, Surakarta by using three main pillars of sustainable development, namely the social aspects, economic aspects and environmental aspects. Research methods using a qualitative approach based on theory and the results of research that has been done on developing insightful industry environment. Research results can be concluded that the industrial ecology is a collaboration that synergize the aspects of environmental, economic, and social objectives to achieve a sustainable industry. Industrial ecology is a look at the process of industrial production not as a linear process, but as a closed process by stating that, industrial system acting up-sell as an ecosystem, where waste from a species can be input for other species that is the output of an industry become inputs for other industries, thus reducing the use of raw materials, pollution, and saving over treatment of waste.

A COMPARISON OF THE CONVENTIONAL AND PEER LEARNING APPROACH FOR ACHIEVING LEARNING OUTCOMES: A CONCEPTUAL FRAMEWORK

Budiarsi, Safiah binti Sidek, Massila binti Kamalrudin

Conventional teaching and learning that focuses on the teacher as the source of knowledge who has the responsibility to disseminate knowledge to the students is found to be irrelevant in the new emphasis of knowledge-based society. Many have argued that the educational approach should expose students with the reality of the real world. Aiming to propose a new teaching and learning model, namely the peer learning approach, this paper presents a comparison analysis of the conventional and the peer learning approach. A total of 15 papers were analyzed for the comparison analysis. It was found that there is a need for an alternative learning activity in the classroom becomes more conducive and interactive. It can contribute to a positive learning outcomes for students.

COMPARISON OF INTERNET BASED LEARNING AND CONVENTIONAL LEARNING MODELS ON COMPUTER SELF-EFFICACY ABILITY

Pris Priyanto, Diah Ayu Kurniasih

The potential of technology not only increases the efficiency, effectiveness, and flexibility of the learning process, but also improves material development, changes the role of learning and develops student autonomy even further. The role of the teacher as a source of knowledge is transformed into facilitators, motivators, evaluators, and tutors. This study formulates the problem, is there a difference in learning outcomes of WAN subjects between groups of students using a web-centric-based learning model and groups of students who use conventional learning models in students of Computer and Network Engineering. This research includes quasi-experimental research. The design is the design version of the non-equivalent control group. Subject learning outcomes that carry out WAN Network Based Equipment Installation (Wide Area Network) between groups that have self-efficacy and computers that have groups that have computer self-efficacy abilities in class XII students who have low competence in Computer Engineering and Expertise Network in SMK Batik 1 Surakarta shows a difference. Groups of students with self-efficacy, lower computer skills in subjects, install WAN-Based Network Devices (Wide Area Networks) in SMK Batik 1 Surakarta.



ABSTRACT

IMPACT OF ACADEMIC SUPERVISION AGAINST TEACHER COMPETENCY IMPROVEMENT: A REVIEW

ABSTRACT

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Sulistyanto, Danang, Mohamed, Shahrulanuar, Aripin, MuhamadAfzamiman , Ngatiyono , Suroso, CeketPalupi

In the Law of the Republic of Indonesia Number 14 of 2005 concerning Teachers and Lecturers, a teacher must have 4 competencies namely pedagogic competence, personality competence, social competence and professional competence. To realize these competencies, guidance is needed, one of which is through academic supervision. This article shows the impact of implementing academic supervision on improving teacher competence through reviewing various journals and research results. The impact of academic supervision on pedagogic competence is quite large. In the study of Purbasari (2015) and Wildawati (2013) showed a positive relationship between academic supervision and teacher performance. Research shows that there are differences in pedagogic competencies between teachers supervised and those not supervised. The impact of academic supervision on personality competencies was demonstrated in Istigomah's study (2015) that supervisors must pay more attention to the teachers personality, because the teacher ':s personality is still a problem in education in Indonesia. While Kristotos research (2015), and Nahampun (2017) academic supervision will improve teacher competencies which will impact on student success. The impact of academic supervision on social competence is shown in Nugraheni (2013), and Rahmawati (2018) research, that academic supervision can improve teachers' social competence in communicating with students and society. The impact of academic supervision on professional competence is shown in Astuti's (2016) and Akhmad (2013) research, with supervision, teachers and supervisors can discuss the problems faced by the teacher as well as be able to know the learning problems and discuss together to find solutions to solutions

LEARNING MODEL BASED ON SOFT SKILL WITH THE CONSTRUCTIVIST AND BEHAVIORISTIC APPROACH

Imron, Suliswiyadi, Afga Sidiq Rifai

In Indonesia, the goal of national education must reflect the achievement of cognitive (hard skills) and affective (soft skills). The combination of hard skills and soft skills should be reflected in the competency of qualified graduates. One important aspect that is used as a tool for transforming soft skills to students is through classroom learning. In class, the lecturer must be a role model. This model places lecturers as role models in implementing soft skills to students in classroom learning, should use the following principles: (1) Lecturers must assign soft skills components to the learning design; (2) Teaching soft skills requires a role of model from the instructor; and (3) Development of soft skills is carried out through discussion, teamwork, and other supporting activities. Therefore, the paradigm of developing soft skills-based learning must focus on the application of Student-Centered Learning (SCL) with a constructive approach to the scientific construct (andragogical approach), and a behavioristic approach to the development of student soft skills (pedagogical approach).

MODEL OF STUDENT CHARACTER DEVELOPMENT THROUGH THE USE OF EDUCATIONAL TECHNOLOGY BASED ON LOCAL WISDOM

ABSTRACT

Moch Syafrudin D. Laxamanahady, Shahrulanuar bin Mohamed, Norliah binti Kudus

Innovation that appears in the field of education Is the use of educational technology that is conceptualized in the purpose of education, namely to develop the character of students. This character is explored from the principles and values that develop in society as a form of local wisdom. So that this research aims to formulate a new model of character development through the use of educational technology that is run based on local wisdom. The researcher used descriptive qualitative research based on data in the form of writings (library research) that contain theories that support this research. The results of the research show that the moral damage that occurs in schools is caused by the lack of character development applied through education. The existing education system does not encourage the formation of student character. In fact, technological development, such as EduTech can be a means to facilitate the development of these characters. In this case, character development through EduTech comes from characters living in the community, which is through the application of local wisdom values.

ROLE OF LEADERSHIP IN TRANSFORMATION OF HIGHER EDUCATION IN INDONESIA

Supawi Pawenang, Sri Supriyati, Literzet Sobri

This article aims to reveal the leadership role in the transformation of higher education institution in Indonesia. The samples taken are higher education institutions in Surakarta. From the sample which is lined with purposive sampling technique, it is analyzed based on the organizations life cycle and its leadership role. The results show that based on the stages of higher education can be classified into stages of initiation, actuation, and existence. The leadership role in each of the stages varies. The stages of initiation of leadership roles are fully involved in determining organizational policies. In the actuation stage the leadership role has begun to be delegated through the process of motivating and establishing a standardized system. At the existence stage, leadership roles have only focused on strategic steps to strengthen value, quality, and innovation by prioritizing logic, skills, morality, and attitude.

SERVICE QUALITY: AN OVERVIEW OF CUSTOMER SATISFACTION IN PRIVATE SCHOOLS

Ngatiyono, Zuhriah Ebrahim, Mohammad Razali, CeketPalupi Suroso DanangSulistyanto

Students are the customers of educational services that provided by public institute and private institute. The quality of education services can be identified through a comparison between comparing student; perceptions and expectations of educational services on the education processes. In this regard, there are components that could contribute to the quality of educational services. Customer satisfaction is the ultimate result that presents the quality of service. It is crucial to private institute to maintain a quality educational services in the aspect of customer satisfaction as a higher fee is charged compare to public institution. Thus, the purpose of this article is to provide significant components which are critical to customer satisfaction at educational services. A simple statistical analysis was used to shortlisted the significant components based on thorough literature study on quality measures. Five components have been identified as significant to quality improvement of services, namely: (i) Reliability, (ii) Responsiveness, (iii) Warranties, (iv) Empathy, and (v) Tangibles.



SOCIAL EXCHANGE ON TEAMWORK AMONG TEACHERS

Joko Sumarsono, Norliah Kudus, Shahrulanuar Mohamed, Literzet Sobri , Moh. Setio Nugroho

Social exchange is the basis principle of teamwork. However, there is still no clearly stated effects of social exchange towards teamwork especially for educators teamwork. Based on the factors of social exchange, namely reward and cost, several rules in conducting teamwork can be done and resources can be found. The rules include: a) reciprocity, b) folk belief, c) norm and individual orientation, and d) negotiated rules, while the resources involve: a) love, b) status, c) information, d) money, e) goods, and f) services. This article presents a review on selected articles by using literature review method. It is found that there are rules and resources in a teamwork, and, the rules and resources integrate into the shape of relation among educators whether horizontally or vertically and how they create reward and cost towards the members. Horizontally shared resources means that the team members are with the same rank over each other, no dominant role there, while vertically shared resources means that the members are diverse in terms of power like civil servant teachers and contract teacher.

STE@M-Q EDUCATION: INNOVATION IN LEARNING

Ceket Palupi Suroso, Mahadi Bin Abu Hassan, Shahrulanuar Bin Mohamed

The mastery of Science and Technology is currently an important key in facing challenges in the future. Various challenges that rise include, among others, improving quality of life, equitable development, and the ability to develop human resources. For this reason, education plays an important role in preparing students who are strong and able to face future challenges. Various learning theories and approaches have been carried out. One of them is the STEM Education Model (Science, Technology, Engineering and Mathematic). But the quality of education in the context of academic achievement and character formation and the planting of religious values are still not proud. So that innovation is needed in learning. In this article, we try to review 14 research articles related to the use of the STEM model in Education. In this review it was found that although it was successful in improving academic aspects, it did not touch the religious aspect, which both aspects should be developed. In this paper a STEAM-Q based Education is proposed as a learning innovation that is expected to touch cognitive and mental aspects.

ABSTRACT

STIGMATIZATION PESANTREN RADICALISM-TERRORISM: AN ANALYSIS OF CURRICULUM SUPERVISION DYSFUNCTION

ABSTRACT

Page T5-5

Suliswiyadi, Supawi Pawenang, Imron, Ahmad Tantowi

This study aims to determine the activities of educational supervision functions carried out by pesantrens, in the analysis of the curriculum supervision function. This study used a qualitative method, the study location was chosen for 10 pesantren, which were in the Central Java and DI Yogyakarta regions. Data collection techniques used were observation, interviews, documentation studies. The data analysis technique consists of data reduction flow, data presentation flow, conclusion drawing flow. The validity technique of the data in the study was carried out based on four criteria, namely; the degree of trust, transferability, and certainty using techniques, including; extend the presence of researchers, persistence of observation, peer examination, negative case analysis, rechecking, and triangulation. The results of the study concluded that: The act of supervising the pesantren curriculum, all pesantrens took independent supervision. Educatively, 49% are supervised by pesantren. Curricular, only 58% is supervised by pesantren. Supervision of the guidance function, 58% is supervised by pesantren. Administratively, only 58% is supervised by pesantren. Supervision of pesantren services, 64% is supervised by pesantren. Pesantrens with a high intensity of religious learning will shape the attitudes and perspectives of high santri about Islam. When combined with santri exclusivity and the lack of external culture that can be accepted by the santri, it will shape the Islamic attitude about santri (Ashabivah) fanaticism. This Islamic fanaticism assumes that Islam is a religion that they must fight for and must spread in people's lives. The struggle to spread Islam is done by all means and risks that must be borne. This is the emergence of a radical attitude from pesantren students.

TEACHING APPROACHES AND METHODS FOR ENTREPRENEURSHIP EDUCATION AND TECHNOPRENEURSHIP IN HIGH SCHOOLS : A REVIEW

Teguh Rahayu Slamet,, Safiah Sidek

Many claim that entrepreneurial skills are an important skill for every individual to survive in this challenging, competitive and limitless world. It has also stated that entrepreneurship skills are important skills to drive a country's economic growth. In connection with this, many countries, including Indonesia, have made entrepreneurship education a compulsory subject in their high school education. Aiming to develop students to become independent, responsible, creative, innovative and entrepreneurial individuals, many teaching approaches have been adopted. However, the effectiveness of this teaching approaches that are tailored to the needs of students in Indonesia. This study aims to review a variety of documented teaching methods on entrepreneurship education to identify their emphases, strengths and weaknesses. For this purpose, 35 articles have been reviewed. It was found that the entrepreneurial teaching approach in high schools adopted five approaches and the scientific, technological and community approach is found to be more superior than the other four approaches as it is found to have the most cited approach and it does not have any weaknesses in comparison to the others. Further, innovative is considered as the least catered values considered in the approach.

THE BARRIER FACTORS OF VOCATIONAL SCHOOLS TO IMPLEMENT ONLINE LEARNING FOR MATHEMATICS STUDY

ABSTRACT

Bambang Kandiawan, Massila binti Kamalrudin, Safiah binti Sidek

In practice, the mathematics learning in vocational high school or sekolah menengah kejuruan (SMK) in Indonesia is already qualified, the problem is only when by using online application or e-learning to enhance the quality of teaching, facing some difficulties of experiences or finding some barriers. The purpose of this research is to explain some of the constraints or barriers in the learning of mathematics in vocational schools. Some barriers that encountered include: (1) human resources factors that poor experiences to apply learning in Mathematics Learning Online, (2) poor facilities and infrastructure factors to implement Online Learning in learning mathematics study. The research appears on the basis of the findings in the field that the results of the students learning mathematics at SMK that is found less satisfactory. This writing hopefully gives few solutions to be applied so that the obstacles that occur can be resolved.



ANALYSIS OF INDONESIAN IDENTITY, CULTURAL HERITAGE, AND BATIK PRODUCTS TOWARD SOLO COMMUNITY PURCHASE DECISION

Siti Maryam, Ida Aryati, Istiqomah

The research on consumer behaviour, especially in doing the purchasing decisions of batik, a factor that is examined is the Indonesian Identity, cultural heritage and Batik products batik towards a Solo community purchase decision. The purpose of this research is to know the significant influence among variables Indonesian Identity, cultural heritage, and Batik products with Solo community purchase decision simultaneously as well as partial. The method of this research descriptive causality, samples taken amounted to 50 respondents. Convenience Sampling techniques. The data in this research is the primary data with engineering data collection using the questionnaire. Using multiple linear regression analysis techniques, F test, t-test and the results of research. It can be concluded that: 1) there is the influence of Indonesian Identity, cultural heritage, and Batik products, simultaneously towards a Solo community purchase decision, 2) write here. There was no influence of Indonesian Identity towards Solo community purchase decision, 3) there is a significant positive influence Batik products towards a Solo community purchase decision, 4) there is a significant positive influence Batik products towards a Solo community purchase decision.

ANALYSIS OF INSTITUTION MODEL IN FOREST AND AGRICULTURE FIRE CONTROL

Pramono Hadi, Sri Julie Rahmawati, Siti Nurlela

Implementation of the drafting law becomes very important considering the current forest and land fire conditions have an impact on the implementation of community life. Methodology to solve forest and land fire problems is used by the study method to examine the existence and performance of formal and non-formal institutions, using analysis with SCP approach. The results show that the implementation of forest and land fire prevention is not only left to the region alone, the need for systematic and synergic response between the policy of the Central Government and Local Government. Thus, this bill can be used as a legal instrument for the implementation of forest and land fire prevention which is the concern of the Central Government and Regional Government Jambi.

FACTORS THAT INFLUENCE SOCIAL PARTICIPATION OF RURAL WOMEN IN SELECTED REGIONS OF DUHOK GOVERNORATE / IRAQ

Hashim Saeed Murad, Abid Ali Hasan Al-Doski, Aamel F. Khalil Al-Abbassi

This study was designed to determine the level of social participation of rural woman in Duhok governorate of Kurdistan region of Iraq. A total of 474 of respondents are selected by Random Stratified Sampling. The collected data were statistically analyzed including (frequency, percentage, mean, standard deviation correlation, and regression) using SPSS software program. The perception level of social participation of respondents was moderate. The correlation was used to examine the association between independent variables and social participation degree of respondents. The results showed that there is a significant relationship between some social, demographic variables and degree of social participation of respondents. It is recommended that agricultural extension in the targeted area should encourage the formation and membership of cooperative organizations (such as civil society institutions, NGOs and community-based organizations).



GENDER-BASED E-COUNSELING AS A RECOVERY MEANS FOR WOMEN VICTIMS OF SEXUAL HARASSMENT AT WORKPLACE

Gayatri Dyah, Suprobowati ,Kukuh Tejomurti, Yohanes Wahyu Nugroho, Norida Abdullah

The objective of this research is to explain how recovery process for women who are victims of sexual abuse at work. Recovery is done using gender-based e-counseling. This is because the criminal system is only to punish the perpetrators, but has not provided an effort to recover the victim's psychological condition. This research is a literature study based on library materials. This research used a conceptual approach because the researcher formulated a gender-based e-counseling model. The results of the research show that the workplace is a potential place for sexual harassment. The dominant factor is due to unbalanced relations between women and men, then triggering sexual harassment in the workplace. Recovery of victims with e-counseling is intended so that women as victims can fulfill the principles of gender equality that positively impact their lives. E-counseling can use certain applications or other electronic tools provided with the cooperation of various stakeholders.

IMAGE ANALYSIS OF CRACKS IN UNDERWATER ENVIRONMENT

Ahmad Zaki Shukor, Nur Syahirah Mazlan, Sarmila Elangovan, Muhammad Herman Jamaluddin

Cracking in underwater pipelines are one of the type of disasters difficult to predict accurately. It has high impact in terms of damages to underwater environment and economical loss. Pipelines transport a large amount of fluid but occasionally there exist cracking in the welding pipelines. The objective of this study was to investigate the use of vision sensor in order to capture and analyze the image of underwater cracking in pipelines. In this system, the image processing techniques used to observe the cracking pipelines were greyscale image conversion, Gaussian filter, Simple Thresholding, Histogram and Canny Edge Detection. Moreover, in this paper, the contour method was used to find the coordinates point of the images in area of the cracking path of pipelines. The coordinates of the image can be used to estimate the starting and ending point for welding to repair the crack. The environment studied was clear water and murky water. This indicates that the contour method is viable to estimate the cracking locations on the pipe in several cracking types; Stress Corrosion Cracking (SCC), Hydrogen Induced Cracking (HIC) and Hooks cracking for clear water, and Stress Corrosion Cracking (SCC) and Hydrogen Induced Cracking (HIC) for murky water. However, results for SOHIC for clear water and SOHIC and Hooks cracking for murky water could not be obtained because of the isofficient detail of images.

INTELLECTUAL PROPERTY PROTECTION POLICY FORMULATION OF JAVANESE TRADITIONAL MEDICINE KNOWLEDGE TO IMPROVE COMPETITIVENESS IN THE ASEAN COMMUNITY

Hafid Zakariya, Tria Rosana Dewi

Biodiversity nation Indonesia in the form of Javanese traditional medicine has been around since hereditary and there have been many known more popular internationally, efforts to protect is the way to ensure the continuity of the existence and the existence of traditional medicine. The purpose of this study is to determine and identify the Javanese traditional medicine as traditional knowledge, to evaluate intellectual property protection of traditional Medicinal Knowledge of Java against the competition in the Asean Community, a problem that will be examined is what are the Javanese traditional medicine as traditional knowledge, how the legal protection of Traditional Medicinal Knowledge of Java in the face of competition in the Asean Community.

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MODEL LAW OF ADMINISTRATIVE FINES ON POPULATION ADMINISTRATION IN LOCAL REGULATORY

Ariy Khaerudin, Suharno Suharno

Law Number 24 of 2013 on Amendment to Law Number 23 of 2006 on Population Administration provides a burden based on "Active Stelsel" registration principle. Inconsistency between principle and the norm raises a number of issues in their implications, especially on the regulation of fines as administrative sanctions. Disharmony between principles and norms in the administrative fines of population still regulated in the regional regulations and cause problems in its application both for local government and the population. This research aims to reconstruct model of regional regulation an administrative fine to determine for legal certainty. Synchronization and grammatical interpretation method is used to rebuild article administration fine as a concept article for regional regulation. Based on the principles create legislation by synchronizing and harmonizing to make orderly system. By Law Number 12 of 2011 on the Drafting of Legislation regulates that the provisions of the higher Law should be guided by the lower regulations. Therefore, a local regulation should not conflict with higher regulations.

MyPhysio: A DESIGN OF SPEECH TO TEXT TELEHEALTH APPLICATION TO FACILITATE HOME BASED PHYSIOTHERAPY SESSION FOR PATIENTS WITH PHYSICAL LIMITATION

Raja Rina Raja Ikram , Lee Pik Yun , Lizawati Salahuddin, Nadiah Ishak , Nor Syafinaz Yaakob, Fatimah Dzaharudin

Patient adherence towards home physiotherapy sessions are perceived to be low due to the challenges physical disability patients face. A study done in Australia shows that out of 352 physiotherapists, the mean perceived rate of patient adherence towards home physiotherapy sessions was only 67%. A majority of physiotherapists believed that patient self- management strategies were important in improving patient outcomes. Amongst the barriers towards adherence include low levels of physical activity at baseline or in previous weeks, low in-treatment adherence with exercise, low self-efficacy, depression, anxiety, helplessness, poor social support/activity, greater perceived number of barriers to exercise and increased pain levels during exercise. This paper proposes MyPhysio, a design of a telehealth mobile based application to facilitate home based physiotherapy session for patients with physical limitation. This system enables physiotherapy sessions to be conducted via teleconferencing and enables activation of certain functions via speech, particularly starting and ending a teleconsultation or telephysio session.

OPTIMIZING THE IMPLEMENTATION OF STANDARD OPERATING PROCEDURE- GOOD AGRICULTURE PRACTICE (SOP-GAP) FOR ORGANIC RICE FARMING IN BOYOLALI

Suswadi, Agung Prasetyo, Ratih Dwi Kartikasari

The increase of organic rice consumption arises as people are increasingly concerned about healthy food consumption. Standardized organic food supply is needed to fulfil the need of food. This paper aimed to find out the level of implementation of Standard Operating Procedure-Good Agriculture Practice (SOP-GAP) for organic rice farming and the correlation between the implementation of SOP-GAP for organic rice farming and the increase of organic rice production in Boyolali Regency with categorization and correlation analysis. The research location was determined by purposive sampling. Sample of farmers as respondent was conducted with Snow ball sampling g. The research results show that the implementation of Standard Operating Procedure-Good Agriculture Practice (SOP-GAP) for organic rice farming in Boyolali Regency is very high. There are nine sub-aspects of SOP-GAP that correlate with and have a significant effect on increasing organic rice production, namely land suitability, seedling, pesticides, equipment, soil cultivation, irrigation, plant maintenance, PDO (Plant Disturbing Organisms) control, and post-harvest. There are four sub-aspects of SOP-GAP that do not correlate with and have no significant effect on increasing organic rice production, namely fertilizer and fertilization, planting, and harvesting. In this case, efforts are needed to increase the use of quality fertilizers and planting buffer plants in farming.



ROLE OF YOUTH IN ORGANIC RICE COMMERCIALIZATION IN BOYOLALI

Suswadi, Agung Prasetyo, Sutarno

Technological advancement requires farmers to be able to reach consumers and earn from their farming. Young generations, who are more adaptive to technological advancement, should be able to help contribute actively to increase the income of their parents who are farmers. This research aimed to find out the role of youth in the organic rice commercialization in Boyolali Regency and its effect on farmers' income. This descriptiveresearch was carried out with the survey method and analyzed with two-stage least square. The results showed that there were four variables that influenced the organic rice commercialization namely age, educational level, government program, and the role of youth as a liaison. In general, the role of youth in the organic rice commercialization also affected the income of organic rice farmers in Boyolali Regency. Efforts are needed to attract youth to take an active role in the organic farmers' activities, for example by giving an example that organic rice farming can generate sufficient income for farmer families. Youth should be given freedom to cultivate land resources and manage capital, organic rice training, and rural agrarian reform. Keywords: Youth, two stages least square, commercialization.

STRENGTHENING TEACHING OF NATURE AGAINST MATERIAL LAW IN ERADICATING CRIMINAL ACTS OF CORRUPTION IN INDONESIA

Burham Pranawa, Hartiwiningsih, Hari Purwadi

The Constitutional Court through Decision number 003 / PUU-IV / 2006 states the Explanation of Article 2 paragraph (1) of Law number 31 of 1999 is contrary to Article 28 D Paragraph (1) of UUD 1945 so that the explanation of Article 2 paragraph (1) of Law No. 31 of 1999 does not have binding legal force. As a result of the Constitutional Court Decision Number 003 / PUU-IV / 2006 dated July 25, 2006, it narrowed down the meaning of the interpretation of the "against the law" element which was limited to "against the law" based on written law only. The main problem in this research is to answer why the Constitutional Court Decision No. 003 / PUU-IV / 2006 concerning judicial review of the teachings of the material unlawful nature of criminal acts of corruption has not yet been maximally effective to eradicate corruption in Indonesia. The purpose of this study is to arrange what steps should be taken to find a model of strengthening teachings of nature against material law in eradicating of corruption in Indonesia. The type of research used is doctrinal or normative legal research, with approaches: conceptual approach, statute approach, case approach, and historical approach. Based on the results of the study it can be concluded that the strengthening of strengthening teachings of nature against material law in eradication of corruption is carried out by reconstructing regulations, returning the principle of returning the formal legality principle adopted by the Constitutional Court to the legality principle in accordance with the Indonesian ideology.

THE IMPORTANCE OF IMPLEMENTING GOOD AQUACULTURE PRACTICES BASED ON THE ANALYSIS OF QUR'ANIC VERSES

Betania Kartika, Firdaus Fanny Putera Perdana

The objectives of the papers include presenting the current conditions of aquaculture practices, understanding the importance of good aquaculture practices and most importantly reviewing the Quranic verses in accordance with the importance to conduct good aquaculture practices. The aquaculture itself is in charge of around 47 per cent of the fish consumption in the world. Its value is estimated to be around 125 billion USD and it is responsible for 13% of the world's animal-source protein (eggs and dairy excluded). Around 24 million people rely on the sustainability of aquaculture to ensure they have a proper living. The Quranic verses state about environmental corruption, prohibition of wastefulness and the importance in ensuring the environment to be well protected. It is crucial that humans start to carefully monitor the environment as what happens to it is derived from their actions, as stated in Quránic verses 30:41: "Mischief has appeared on the land and sea because of (the meed) that the hands of men have earned." The paper also discusses the importance of productivity and quality as aspects to achieve success. The method used is the library research which includes the observation from Islamic perspectives. This is in line with achieving the highest objectives of Shariah, which protect the farmers, the environment, the aquaculture and the consumers. The output of the study may serve MyGAP and MS 1500:2009.

THE IMPLEMENTATION OF ASEAN GAP IN OVERCOMING AL-JALLALAH RELATED ISSUES; WITH THE FOCUS ON SHARIAH-COMPLIANT AND SUSTAINABILITY ELEMENTS

Betania Kartika, Sitti Walida Parson, M. Aizat Jamaludin, Noor Faizul Hadry Nordin, Ahmad Jalal Khan Chowdhury, Supawi Pawenang

Al-Jallalah is an Arabic term referring to animals that are consuming something filthy, such as feces and carcass, thus creating the foul smell and bad taste to the animal's meat. In aquaculture practice, there are a series of cases reported by the media regarding improper feeding practice by some aquaculture farmers who use pig offal and carcass as feeding for the fish. This has raised concern among the Muslims because in Shariah point of view, consuming the meat of al-Jallalah animal is prohibited due to its filthiness that can cause detrimental to human health. This paper discusses the elements in Asean Good Aquaculture Practice (GAqP) which will be used to overcome the al-Jallalah related issues. Four elements namely food safety, animal health and welfare, environmental integrity and socio-economic aspect are discussed with the integration of Shariah perspective. The methodology used is the library research from various reliable sources, such as database and search engine that cover selected journals and information regarding the subject matters, including references from local or international fisheries authorities: Department of Fisheries Malaysia, Asean GAqP, Food, and Agriculture Organization of The United Nation, World Fish Center and Agriculture, Fisheries and Conservation Department of Hong Kong. The synthesized findings from this paper will provide a clear view of how GAqP is able to overcome the problems regarding al-Jallalah in aquaculture practice. Since GAqP is a voluntary scheme, for future undertaking the authorities are emphasized to start the action to litigate this scheme to become compulsory to resolve this issue completely.

THE ROLE OF CONSUMER ATTITUDES IN THE MEDIATED INFLUENCE OF HEALTHY LIFESTYLE AND THE REFERENCES TO ORGANIC RICE PURCHASING DECISION (STUDY ON THE CONSUMERS OF ORGANIC RICE PADI MULYA SURAKARTA)

Ida Aryati Diyah, Siti Maryam, Ibnu Suryo

This research aims to know and explain the role of consumer attitudes in the mediated influence of a healthy lifestyle and the references towards an organic rice purchasing decision. This research uses quantitative research. Its population is consumers of organic rice Padi Mulya Surakarta, the sample is determined by the formula expressed Malhotra and 100 respondents. Using a nonprobability sampling method incidental sampling. The questionnaire used in data retrieval. Data analysis technique used is a PLS SEM and Sobel test. The results showed that healthy lifestyle direct effect on consumer attitude. Reference group direct effect on consumer attitude. Healthy lifestyle direct effect on purchasing decisions of organic rice. The reference group effect directly in the purchasing decisions of organic rice. Effect on the consumer attitude of the decision purchase of rice organic. Healthy lifestyle influence on purchasing decisions with organic rice mediated consumer attitude. The reference group effect on purchasing decisions with organic rice mediated consumer attitude.

THE TAXONOMY AND PRINCIPLES OF YOUTH DEVELOPMENT PROGRAMS

Khulood Alhammadi, Safiah Sidek, Massila Kamalrudin, Samer Ali Al-shami

Youths are recognized as the future generations that contribute to the progressive growth and wellbeing of a nation. As such, attentions need to give to youth development to ensure its positive growth and programs for youth development need to be implemented adequately and effectively. Considering that there have been variety of programs for youth developments have been initiated and implemented worldwide, there is a need to develop taxonomy of the youth development programs. Additionally, principles for organizing systematic and quality youth development programs are lacking. Therefore, this paper presents the taxonomy and principles of implementing youth development programs. Additionally, initiatives of youth development programs in the UAE are also discussed to highlight their strategies for youth development. This discussion serves as a contextual background for a research that aims to investigate the strategic management of youth development programs at UAE.

THE THEOANTROPOCENTRIC BASED MODEL OF DEMAND AND SUPPLY

Supawi Pawenang, Sri Supriyati, Betania Kartika. Burhanudin A. Yani4

This paper is focus to criticize Marshall's supply and demand theory. Marshall's theory was indentified by strengthness and weakness, so be looked up solution to make a perfect theory. The result of analysis describe that Marshall's theory is a basic of most theory in study of economics. Many theory, like a monetary theory, fiscal theory, consumer behaviour theory, etc., was developed from that theory. On the other hand, Marshall's theory has some weaknesses if looked up from morality or religious perspective, because morality and religious value absent from theory. So, some weaknesses of theory be repaired by inserting axis and ordinate reflector that can be used to controlling outcome transaction from morality and religious value perspective. The new supply and demand theory is named universal-



THE IMPORTANCE OF IMPLEMENTING GOOD AQUACULTURE PRACTICES BASED ON THE ANALYSIS OF QUR'ANIC VERSES

Betania Kartika Muflih, Firdaus Fanny Putera Perdana

Abstract: The objectives of the papers include presenting the current conditions of aquaculture practices, understanding the importance of good aquaculture practices and most importantly reviewing the Quranic verses in accordance with the importance to conduct good aquaculture practices. The aquaculture itself is in charge of around 47 per cent of the fish consumption in the world. Its value is estimated to be around 125 billion USD and it is responsible for 13% of the world's animal-source protein (eggs and dairy excluded). Around 24 million people rely on the sustainability of aquaculture to ensure they have a proper living. The Ouranic verses state about environmental corruption, prohibition of wastefulness and the importance in ensuring the environment to be well protected. It is crucial that humans start to carefully monitor the environment as what happens to it is derived from their actions, as stated in Quránic verse 30:41: "Mischief has appeared on the land and sea because of (the meed) that the hands of men have earned." The paper also discusses the importance of productivity and quality as aspects to achieve success. The method used is the library research which includes the observation from Islamic perspectives. This is in line with achieving the highest objectives of Shariah, which protect the farmers, the environment, the aquaculture and the consumers. The output of the study may serve MyGAP and MS 1500:2009.

Keywords: Aquaculture, Quranic verses, Pollution, Good Aquaculture Practices

I. INTRODUCTION

Aquaculture is important industry in Malaysia which contributes to the social and economic development while, Food safety and quality are critical issues of great concern in Malaysia and throughout the world. It is more critical for Muslims as their consumption must be halal (permissible in Islamic Law) and Tayyib (safe, hygiene, wholesome, clean, and good). By 2025, the world is expected to be inhabited by more than 8 billion people and the rise will likely happen to many cities in the developing nations.

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¹Betania Kartika Muflih, International Institute for Halal Research and Training, IIUM, Kuala Lumpur, Malaysia.

Firdaus Fanny Putra Perdana, International Institute for Halal Research and Training, IIUM, Kuala Lumpur, Malaysia.

Urban population is estimated to reach four billion by 2025 and it is important to ensure that the demand towards food supplies can be met in this condition. Apart from that, the income is also expected to be higher and this situation leads to the rise of the food demand [1]. The increase in food production is inevitable and during the process, it is imperative to ensure that sustainable and environmentalfriendly systems are applied [2]. The aquaculture itself is in charge of around 47 per cent of the fish consumption in the world. Its value is estimated to be around 125 billion USD and it is responsible for 13% of the world's animal-source protein (eggs and dairy excluded). Around 24 million people rely on the sustainability of aquaculture to ensure they have a proper living [3]. However, many applied aquaculture production processes are responsible for wastewater containing total phosphorus, total nitrogen, as well as suspended solids. Many aquaculture systems are still conducted in conventional biological and chemical techniques. Therefore, it is crucial to come up with effective and efficient systems that allow prevention towards pollution [4]. Polluting the earth and its environment leads to catastrophic disasters like tsunamis and hurricanes. Humans are expected to bow in supplication to Allah and they have to conduct good behaviour that ensures sustainability. The importance of creating a system that is pollution free is in line with the Quranic verse below.

And cause not corruption upon the earth after its reformation. And invoke Him out of reverence and hope. Indeed, the mercy of Allah is near to the doers of good. (Surah Al-A'raf [7:56])

Aquaculture is defined as a farming-related activity or the production of water species in certain conditions that are under supervision. One of the most important factors that dictates the success of aquaculture production is the implementation of management practices. Good implementation towards the management practices leads to production sustainability. The production sustainability is important to ensure a high level of productivity and high quality of the resulted products [5]. Not only affecting productivity and quality, but good management practices can also be the reason for increased profitability [6]. Those companies that intend to improve the quality and reach higher customer satisfaction will likely end up being more successful than those without any intent to do so [7], [8]. Quran also suggests the importance of quality management and the relevant verse is as follows:

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"O my people! Worship Allah. Ye have no other god but Him. And give not short measure or weight: I see you in prosperity, but I fear for you the penalty of a day that will compass (you) all rounds. "And O my people! Give just measure and weight, nor withhold from the people the things that are their due: commit not evil in the land with intent to do mischief." (Al Qurán 11:84-85)

This paper offers an overview of Quranic verses that are relevant to the sustainability of the aquaculture system and the implementation of aquaculture good management practices. Islam encourages us to be responsible and environmentally friendly in every single aspect of our lives. Many aquaculture systems are still highly associated with pollution and it is important to develop methods to combat that. Apart from that, quality and productivity are also very crucial as the demand towards the food supplies has always continued to increase and aquaculture farming is an alternative source that can ensure the demand is met.

II. LITERATURE REVIEW

A. Environmental Issues Associated with Aquaculture Systems

The aquaculture production has continued to increase nowadays as the demand towards the food supplies is getting higher day by day. It is crucial to make sure that the same mistakes occurred in the Green Revolution (agriculture) do not happen again [9]. Despite the high development in the agriculture for human consumption, it is also important to note that this intensification was also responsible for coastal waterways and inland pollution, excessive use of water and energy, and excessive use of antibiotics and chemical products [10]. It is widely known that poorly managed aquaculture practices have caused a lot of negative effects on their surroundings. The three types of impact include pollution, loss of amenity, and competition for land use [11]. The physical impact of the activity and inducement of negative human reaction due to the physical impact of the activity are the two requirements as to why certain pollution cases must be urgently taken care of [12].

Some of the aquaculture practices have been accused of so many negative impacts on the environment and many studies regarding that were also conducted. Shrimp farming, especially for those requiring the construction of the pond, can have negative effects on the existence of marshes and mangroves. This can be intensified when there is no awareness regarding the importance of understanding the relationship between coastal fisheries and marshes and mangroves [13]. Apart from hurting wetlands and mangroves, aquaculture practices are also known to be the cause of harmed biodiversity due to escaped certain fish species. It is also the reason for harmed groundwater and surface water contamination through the release of wastes [14].

Some of the most commonly found pollutants in aquaculture systems include phosphorus and nitrogen. The nitrogenous waste components are mainly caused by the fish excretion that is associated with ion exchange and diffusion through faeces, urine, and gills. Decomposition process and recycling of nitrogenous components are particularly imperative in aquaculture utilizing recirculation methods caused by the high toxicity level of nitrite and ammonia as well as the possibility of the environment hypertrophication by nitrate [15]. The success of aquaculture systems is dictated by the location chosen, waste removal methods and water quality. As aquaculture system is developed to the next level, it is important to manage the nutrient pollution, river and water consumers, as well as the effects on ecosystems of the locals [15], [16].

The food remains uneaten, body parts, and dead fish are some of the organic wastes from agriculture systems. This is called nutrient pollution, and this triggers the growth of a particular species of phytoplankton called microscopic algae. The presence of this creature is the reason for harmful algal blooms and this is also the cause of intensified fouling [17]. The low-quality feed has also been long suspected as the cause of aquaculture pollution as well as its contaminated waters. The soluble organic content is the crucial aspect of the water quality in the environment [18]. There are so many ways that allow the feed to interact with many different aspects (osmotic pressure, chemical reaction, wave strike, temperature and pH) and some of them include desquamation, swelling, resolving, breaking, and pulverization. The pollutants that are released in a direct manner can easily contaminate the neighbouring water and the quality of the soil [19]. The emissions that are released can potentially reduce the dissolved oxygen, trigger eutrophication and hyper-nutrification, increase the sedimentation burden, as well as improve the existence of the benthic and planktonic creatures [20], [21]. Aquaculture systems are also highly associated with the release of toxins and heavy metals, especially for the production of shellfish [22].

Many of the farmers are struggling financially and they cannot afford the expensive formulated feeds. Due to this situation, they are often forced to utilize bad quality agricultural waste and by-products as an alternative. The mentioned two are naturally unstable and moist. Apart from that, the uneaten feeds and faecal contaminants can highly affect the water quality in the system. These are also usually discharged to canals and rivers and eventually they become pollutants that affect the ecosystem. The uneaten fish and the pollutants can potentially become a medium that allows the growth of some aquatic weeds such as blue-green algae. The consumption towards the blue-green algae will cause the fish muscle to taste quite muddy [23]. It can be concluded that the chemical and organic matters utilization and poorly managed nutritional values may eventually affect the livestock, the ecosystem, the environment and the surrounding societies [24].

Similar to agriculture, chemicals are also heavily utilized in aquaculture systems. To prevent disease and control pest, chemicals like antibiotics, disinfectants, and pesticides are used. Other purposes of chemical use include increasing productivity, reproduction control, enhancing growth, processing, transportation, improving the quality of soil as well as treating water [25]. Even though the US government has regulated both drugs and chemical, illegally registered products are commonly used due to economic reasons. In Thailand, averagely 13 types of chemical, four types of pesticides and disinfectant, and three types of soil and water treatment products are used. Fluoroquinolones are one of the antibiotics that is commonly used by shrimp farmers in Thailand [26].

Bangladesh, China, Indonesia, India, and Vietnam are some of the Asian nations that are known for their intensive aquaculture development. It has also been widely known that these countries are also responsible for regulating animal pollutants, human faeces, and wastewater to the ponds [27]. Some of these methods are no longer popular to cater to the needs of farming more valuable items like shrimps as they are not able to grow in wastewater. The use of human faeces may also greatly affect human health. Finfish farmed in wastewater-fed ponds may be the mediums of pathogens from human faeces in their muscle tissue, digestive tracts, gills, and intraperitoneal fluid [28], [29]. Shellfish contaminated with animal waste and human excreta can be responsible for pathogenic bacteria and viruses in their digestive and muscle tissues [30].

B. Good Aquaculture Practices

All the examples of pollution reviewed earlier show that it is important to conduct such practices that allow sustainability. Aquaculture systems that involve unsustainable practices will likely be the reason for environmental degradation that can upset the natural balance of ecosystems. The impacts are even stronger to the surroundings that are nearby the area of aquaculture systems [11]. Thus, it is crucial to focus on the environmental effects as well as the solutions that prevent unfortunate occurrences. Such responsible aquaculture methods must be built to ensure good sustainability in production [31].

The implementation of good aquaculture practices is very crucial as it is a medium that can prevent the harming towards the environment and the surroundings. Certain precautionary actions must be taken as it is important to ensure the longevity of the system [32]. Environmental preservation and protection must be prioritized in the sustainable and responsible methods of aquafarming. Apart from that, good aquaculture practices are also highly associated with higher productivity and better product quality [11]. Not only affecting productivity and quality, but good management practices can also be the reason for increased profitability [6].

Many studies regarding the improvement of aquaculture have been performed in the last decade [1], [33]–[38]. These studies were interested to review the cases and some suggestions to improve the conditions were also made. One of the most important decision-making processes in aquaculture practices is the location selection that is relevant to the species developed [1], [39]. It is also important to apply the most suitable culture system [40], [41], find the best feed and feeding applications [35], [42], [43], implement bioremediation system [44], apply proper waste management [45], [46], manage compliance certification [47] as well as perform more research studies to enhance the current systems [22] The success of good aquaculture practices also relies heavily on the practices implemented by aquaculture farmers [48]. It is important that all the related activities are fully monitored, supervised and reviewed to ensure that the best technical experience is achieved. Some relevant activities include food and diet, animal welfare, animal health, and animal nutrition. Malaysia has been one of the countries that take interest in doing so and some developments have also been made. Department of Fisheries launched a Code of Good Aquaculture Practices (GAqP) in 2005 [5]. As per now, the Code of Good Aquaculture Practices or Good Aquaculture Practices Scheme is called Preliminary Farm Certification Program (PRP).

Good aquaculture practices are defined as the advancement and implementation of preventive measures to reach all the requirements regarding culture techniques, environmental situations as well as the needs of a certain species. It is crucial that the aquaculture players take an interest in developing the system as it is a means to control the operation and to prevent the risk [40]. Potential diseases can also be avoided if aquaculture practices are well implemented [49]. Good knowledge about the system also prevents the players to heavily utilize chemotherapeutic agents [50]. The Hazard Analysis Critical Control Point (HACCP) principles can be utilized as a medium that allows the risk management system to ensure that pathogens and diseases are not spread at aquaculture sites. The HACCP system is associated with preventive measures and a hazard analysis needs to be performed to get a better understanding towards a potential hazard in the system. Upon doing that a Critical Limit, with a maximum and or minimum threshold, is set for each aspect of the method [51]. Once a violation is made, corrective measures must be conducted to ensure all the systems comply with all the requirements [52]. Both freshwater and marine aquaculture system can benefit HACCP principles to identify and control hazards occurred in the system or production development [51].

Biological, chemical and physical preventive actions are taken to ensure that better aquaculture system is reached. Biological activities are meant to handle infections and they include the responsible use of chemotherapeutic agents and the proper involvement of vaccines. Apart from that, isolation towards incoming seed stock is also important to prevent the distribution of dangerous pathogens [51]. Chemical activities are a means to treat the materials before entering the aquaculture sites. This is crucial as it is expected to hinder the growth of vectors or pathogens. Some of the chemical activities include performing chlorination or adding ozone to treat the water, handling potential vectors such as clothing, footwear, and tools by exposing them with chlorine and iodine [49]. Physical activities are conducted to prevent contamination from the vectors to aquaculture facilities [34].

The scholars also take a great interest in developing a better system for seaweed farming as it is highly associated with sustainable coastal aquaculture system. The system is called Integrated Multitrophic Aquaculture (IMTA) seaweed farming and the production has been done in a huge scale [9], [53], [54]. The implemented system allows mutual advantages for the cultured organisms and it also affects the water quality of the system. Macroalgae benefit inorganic nutrients to ensure their growth and therefore possible to reduce the seasonal nutrient depletion from aquaculture. Apart from that, macroalgae have also been used as a medium to treat the waste before being released to open waters [54].

C. Quranic Verses Related to Pollution Prevention

Allah has created a man to be 'khalifah' or the care taker of earth. He has clearly stated in the Qurán: Behold your Lord said to the angels: '*I will place a vicegerent on the earth.*' (Al Qurán 2:30)

"And it is He (God) who has made you successors Khalifa) upon the earth and has raised some of you above others in degrees [of rank] that He may try you through what He has given you. Indeed, your Lord is swift in penalty; but indeed, He is Forgiving and Merciful." (Al Qur'an 6:165).

'Khalifah' or vicegerent is one who exercises the authority delegated to him by his principal and does so in the capacity of his deputy and agent. Hence, whatever authority he possesses is not inherently his own, but is derived from, and circumscribed by, the limits set by his principal. A vicegerent is not meant to do what he pleases but is obliged to carry out the will of his master.

As Allah began creating the earth for human beings, He ensured that earth would be livable and sufficient for human life. Trees and plants were provided, rivers were given, and mountains were created. All of them are to ensure that humans can have proper life on this earth. As Muslims, it is important for us to keep the system in a good and orderly manner. Same goes with aquaculture practices, it is important that we come up with systems that do not upset the environment. Everything must be designed in a way that pollutions are minimized. The Quranic verses related to the importance of environmental protection are as follows:

And cause not corruption upon the earth after its reformation. And invoke Him out of reverence and hope. Indeed, the mercy of Allah is near to the doers of good. (Al Qurán 7:56)

Khalifa is an Arabic word for an earthling, and it is an amazing word with many meanings like a caretaker of the earth, viceroy, guardian, and deputy. Despite the strength, it will bow down to Stewardship. Humans are destined to be the most brilliant creatures on earth. As humans, it is important to be responsible and to make use of the knowledge to our maximum capacity. In aquaculture practices, it is crucial that new discoveries and ideas are there to ensure the continuous development and sustainability of the system. The Quranic verses associated with the use of intelligence are as follows:

"Indeed, We (God) offered the Trust to the heavens and the earth and the mountains, and they declined to bear it and feared it; but man [undertook to] bear it. Indeed, he was unjust and ignorant. (Al Qur'an 33:72) Allah dislikes all types of corruption, and environmental corruption is one of those. As humans, we are not supposed to conduct some behaviours associated with environmental corruption. It is important not to be greedy and take what we need only to ensure a good level of preservation. In the aquaculture industry, many systems are developed to ensure sustainability. Vandalism and poaching are not allowed as they may cause the depletion of the animal stock. If it is taken to the next level, this can put the world to hunger or malnutrition. The Quranic verses related to environmental corruption are as follows:

"And Allah loveth not those who do mischief" (Al Qurán, 5: 64)

"And do no mischief on the earth after it has been set in order: that will be best for you, if ye have Faith" (Al Qurán 7:85)

"Eat and drink: But waste not by excess, for Allah loveth not the wasters" (Al Qurán 7: 21).

"And do good as Allah has been good to you. And do not seek to cause corruption in the earth. Allah does not love the corrupters", (Al Qurán 28:77)

"Mischief has appeared on the land and sea because of (the meed) that the hands of men have earned." (Al Qurán 30: 41)

III. QURANIC VERSES RELATED TO ETHICAL AND GOOD AQUACULTURE PRACTICES

It is stated in the Qur'an, "it is He who has made the sea subject, that you may eat thereof flesh that is fresh and tender, and that may extract there from ornament to wear; and you see the ships therein that plough the waves, that you may seek (thus) of the bounty of God and that you may be grateful" (Al Qurán16:14). This verse indicates that God created sea so that humankind could find fresh food to eat and extract ornaments to wear therein. The Qu'ran also says about the ordains to preserve the environment: "then We made you heirs in the land after them, to see how you would behave" (Al Qur'an 10:14). This verse explains that humankind may exploit and culture food (fish and other organisms) and ornaments without destroying marine ecosystems. Thus, human should not disturb the balance in the sea created by God and they should be accountable if they destroy the marine ecosystems by any activities such as exploiting and culturing fish and other organisms. Therefore, the destruction of the marine environments is considered the immoral and unethical use of natural resources. Islam really cares about quality and wellbeing and good aquaculture practices are conducted to ensure that better quality is achieved. Better product quality is not only a medium that serves the needs of humans, but it is also something that can be related to the profitability of the company. The profitability earned will somehow lead to the longevity of the company and customers satisfaction. Good quality products dictate the success of the company.

The Islamic concept that discusses the importance of quality is as follows:

Humans have important yet interrelated roles in this world and they are the servants and vicegerents of Allah. Due diligence is important to ensure that the roles are perfectly done. It is important for humans to improve productivity. Good aquaculture practices are also highly associated with high productivity. Productivity is a sign of success and success in worldly life can bring success in the hereafter. To ensure productivity, it is also important that efficiency and effectiveness are achieved. Allah does not like waste and as humans, we are supposed to minimize the amount of waste. Some of the Quranic verses related to productivity include:

"For the wasteful are the brothers of Satan; and Satan is ungrateful to his Lord." (Al Qurán 17:27)

"And eat and drink, but waste not in extravagance, certainly He (Allah) likes not those who waste in extravagance." (Al Qurán 7:31)

"And He provides for him from (sources) he never could imagine. And if anyone puts his trust in Allah (SWT), sufficient is (Allah) for him, for Allah (SWT) will surely accomplish His purpose verily for all things has Allah (SWT) appointed a due proportion" (Al Qur'an 65:3).

Water is a very important aspect of human's life and therefore, it is important to keep the water clean and sustainable. All creatures in this world highly depend on water and if the water is not properly managed, unfortunate things may occur at the end of the day. Good aquaculture practices ensure that the water bodies are not polluted, and it is important to keep the water bodies clean and consumable. Some of the Quranic verses regarding the importance of water for consumption are as follows:

"We made from water every living thing" (Al Qurán 21:30)

"Lawful to you is the pursuit of water-game and its use for food—for the benefit of yourselves" (Al Qurán 5: 96).

"Nor are the two bodies of flowing water alike, -the one palatable, sweet, and pleasant to drink. And the other, salt and bitter. Yet from each (kind of water) do ye eat flesh fresh and tender, and ye extract ornaments to wear" (Al Qurán 35:12).

Cleanliness is very important in Islam too. Humans are expected to handle cleanliness in every single aspect of their life. Cleanliness is the medium to reach a strong and healthy society. It is crucial that we build a Muslim society with those two mentioned characteristics. Cleanliness is also important in the aquaculture industry and therefore, the animals must be fed something clean. Human excreta and toxic waste are not supposed to be the diet of aquaculture animals. The Quranic verses regarding cleanliness are as follows:

"Surely God loves those who are most repenting and loves those who keep themselves pure and clean." (Al Qurán 2: 222)

"O' mankind! eat of what is in the earth lawful and good; and do not follow the footsteps of Satan. Surely he is a manifest foe for you." (Al Qurán 2:168)

IV. CONCLUSION

The paper has reviewed some Quranic verses and Islamic values that are highly associated with the implementation of good aquaculture practices. Some aquaculture practices are far from ideal as humans are naturally greedy and they only care about profitability. Based on the reviewed Quranic verses, it is crucial that humans start to carefully monitor the environment as what happens to it is derived from their actions.

Good aquaculture practices must be designed in a way that the balance in the environment is not upset. Quran also suggests that it is important to design a system that allows everything to be conducted in an orderly manner. As a khalifah, it is our responsibility to come up with intellectual and ethical aquaculture system that is eco-friendly and not harmful to the surroundings.

Quality is one of the most important aspects of good aquaculture practices. Some Quranic verses regarding quality management, productivity, efficiency and effectiveness are also presented, if properly achieved, these are the signs of success. Efficiency and effectiveness are also highly associated with wastefulness, which is discouraged in Islam. By properly implementing good aquaculture practices, humans are expected to be more careful and ethical with the environment.

Water is also deemed very important in Islam and aquaculture system applied dictates the quality of the water bodies. It is important to note that all creatures on earth are highly dependent on water quality. Therefore, good aquaculture practices are highly encouraged as we need to preserve the water and the animals as well as to maintain the cleanliness of the water source.

GAqP which is integrated with Islamic values according to Quránic verses can be implemented to serve MyGAP and MS 1500:2009.

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AUTHORS PROFILE



Asst. Prof. Dr. Betania Kartika. An Academic staff, lecturer and researcher, Head of Halal Awareness, Information and Outreach, and former Head of Postgraduate for International Institute for Halal Research and Training (INHART), International Islamic University Malaysia (IIUM). She graduated first and second degree

from International Islamic University Islamabad Pakistan (IIUI) in Islamic Studies and Sciences of Tafsir and Hadith, respectively and completed her PhD from Department of Quran Sunnah, University Malaya Malaysia specialized in Thematic Exegesis. She has conducted many researches and presented in conferences locally and internationally, she also conducted various programs related to halal awareness and outreach nationally and beyond. She is the recipient of Distinguished Scientist Award 2018 from Venus International Foundation.



Firdaus Fanny Putera Perdana. Dr. Firdaus Fanny Putera Perdana is granted a title of Ph. D. in Halal Industry from INHART (International Institute for Halal Research and Training) at IIUM (International Islamic University Malaysia). Currently, he works as a Consultant at Innovation Associates Consulting Sdn. Bhd. The author has a Bachelor's degree in Chemical

Engineering, a Master's degree in Industrial Engineering and an MBA in Industrial Management. The variety in his education background allows him to understand people and research from so many different perspectives. His research interests mainly include Halal Consumer Behavior, Islamic Branding, Halal Certification, Halal Food Science, and Islamic Jurisprudence.