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# 2019 IPN CONFERENCES HATYAI, THAILAND

HATYAI, THAILAND  
2-4 APRIL 2019



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# Welcome to IPN Conferences 2019

**Dear Professor, Dr and distinguished delegates,**

Welcome to the IPN Conferences 2019 in Hatyai, Thailand. On behalf of **IPN Education Group**, I would like to thank all the Conference Chair, Program Chairs and the Technical Committees. Their high competence and professional advice enable us to prepare the high-quality programs. For the participants, we hope all of you have a wonderful time at the conference and also in Hatyai, Thailand.

We believe that by this excellent conference, you can get more opportunities for further communication with researchers and practitioners. For the conferences of **IPCEST 2019, IPCSSH 2019, ICBTM 2019 and IC MELT 2019**, more than 40 submitted papers have been received and 25 papers have been accepted and published finally.

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

**Best Regards,  
Thank you.**

Yours Sincerely,



Datin MZ Zainab  
Director – Conference Management IPN Education Group  
Chairman, IPN Conferences 2019 Hatyai, Thailand

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## Message from IPN Honorary Advisor

On behalf the IPN Education Group, it is my privilege to welcome you to the IPN Conferences Hatyai, Thailand 2019. IPN is an independent, non-political, non-governmental organization of distinguished scientists dedicated to advancing science around the world. We aim to help scientists and researchers to publish their findings in scientific journals and to promote and help to organize worldwide conferences. We believe that has no boundaries, regardless of the great distances between countries and continents. Thus IPN welcomes contributions from researchers from all concern irrespective to the race, colour, religion and nationality.

Best Regards



**Prof. Dr. Abdel Rahman Mohammad Said Al Tawaha**  
**Honorary Advisor IPN Education Group**  
*IPN Conferences 2019 Hatyai, Thailand*

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## About IPN Education Group

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

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

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

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



[www.ipneducationgroup.org](http://www.ipneducationgroup.org)  
[www.ipnconference.org](http://www.ipnconference.org)

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# ANNOUNCEMENT

All accepted papers will be published in:

- Active Scopus Indexed Journal
- International Journal of Recent Technology and Engineering (IJRTE)(TM)(ISSN: 2277 -3878)(IJRTE Journal)
- Journal of Mechanics of Continua and Mathematical Sciences EISSN: 0973-8975, ISSN: 2454-7190(ESCI Journal)
- Science International Journal (SI)(ISSN: 1013-5316)
- Advances in Environmental Biology (ISSN 1995-0756)(ERA Journal)
- Journal of Applied Science Research (JASR) (Google Scholar, Ulrich Periodicals, Ebsco Host, DOAJ)(ISSN: 1819-544X)
- Journal of Industrial Engineering Research (JIER)(ISSN:2077-4559)(Peer Review Journal)
- Journal of Engineering and Science Research (JESR)(eISSN : 2289-7127)(Google Scholar, MyJurnal)
- Advanced Journal of Technical and Vocational Education (AJTVE) (eISSN : 2550-2174)(Google Scholar, MyJurnal)
- Management Science Letters (MSL)(EISSN: 1923-9343/ISSN:1923-9335)
- Amazonia Investiga Journal (ISSN: 2322-6307)( ESCI Journal)
- International Journal of Asian Social Science (EISSN: 2224-4441)(ISSN: 2226-5139)(ERA Journal)
- Australian Journal of Basic and Applied Sciences (AJBAS) (ISSN: 19918178)(H Index 22)
- Research Journal of Social Sciences (RJSS) (ISSN:1815-9125)(Peer Review Journal, Google Scholar, Ulrich Periodicals, EBSCO HOST, DOAJ)
- International Journal of Administration and Governance (IJAG) (ISSN 2077-4486).
- International Journal of Business and Management (IJBM)(eISSN: 2590-3721) (Google Scholar, MyJurnal)
- Journal of Social Science and Humanities (JSSH) (ISSN : 2600 - 9056)
- International Journal of Business and Globalisation (IJBG)M (EISSN: 1753-3635/ISSN: 1753-3627)(Scopus Indexed Journal)
- Australian Journal of Basic and Applied Sciences (AJBAS)(ISSN: 19918178)(H Index 22)
- Journal of Social Science and Humanities (JSSH)(ISSN : 2600 - 9056)
- International Journal of Business and Management (IJBM) (eISSN : 2590-3721) (Google Scholar, MyJurnal)

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



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**KEYNOTE SPEAKER:**

**Prof. Dr. Abdel Rahman Mohammad Said Al-Tawaha, (Ph.D)  
Honorary Advisor IPN.org**



**Dato' Syed Azuan Syed Ahmad Al-Idrus, D.I.M.P., M.Eng, B.Sc,  
Dip  
Honorary Advisory MDSG  
Fellow, Institute of Materials, Malaysia  
Fellow, IPN.org  
Senior Member, Society of Manufacturing Engineers USA**

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# LIST OF THE CONFERENCE COMMITTEE

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

## IPN Conferences 2019 Hatyai, Thailand, Chairman

Datin MZ Zainab

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

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Darussalam, BRUNEI

**IPN Conferences 2019 Hatyai, Thailand, Organising Committee**

Nurul Faezah Mohd Talib

Nurul Hanis Hashim

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# INSTRUCTION FOR ORAL PRESENTATION

## ***Devices Provided by the Conference Organizer:***

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

## ***Materials Provided by the Presenters:***

- PowerPoint or PDF files

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

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

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

## ***During registration:***

Original Receipt

Representative / Pass Card with lanyard

Printed Program

Lunch Coupon

Participation Certificate (collected from Session Chair after the session)

Conference Bag



**IPN Conferences 2019 Hatyai, Thailand  
Conference Program**

<b>April 02, 2019</b>	Venue: <b>Lobby</b>	1000 - 1200	Registration	
<b>April 03, 2019</b>	Venue: <b>Phetpirun Room (2nd floor)</b>	0830 – 0845	Opening Remarks	<b>Opening Remarks</b>
		0845 – 1000	Plenary Speech	<b>Keynote Speaker</b>
		1000 – 1030	Group Photo and Coffee Break	
	Venue: <b>Phetpirun Room</b>	1030 – 1230	Session 1	
	Venue:	1230 – 1400	Lunch	
	Venue: <b>Phetpirun Room</b>	1400 – 1600	Session 2	
		1600 – 1630	Coffee Break	
	Venue: <b>Phetpirun Room</b>	1630 – 1800	Session 3	
<b>April 04, 2019</b>	Lobby hotel	0800 - 1200	Networking	

Session 1

Time: 1030 – 1300

Venue: **Phetpirun Room**

Session Chair: **Dr. Haziah Sa'ari**



No	Paper ID	Presenter
1	005-hdy	<p><b>An Engagement in Illegal Motorcycle Street Racing: The Influence of Self-esteem</b></p> <p>Haziah Sa'ari, Mohd Roslan Mohd Tahir, Norsiah Fauzan</p> <p><i>Open University Malaysia, Kuala Lumpur, Malaysia</i></p>
2	006-hdy	<p><b>Effectiveness Level of Technology using Augmented Reality in Education: Learning Visual Arts Education in Secondary Students</b></p> <p>Nuraini Mohd Rani, *Che Zalina Zulkifli, Mohd Fauzi Sedon, Nurhazlina Hassan</p> <p><i>Sultan Idris Education University, Malaysia</i></p>
3	019-hdy	<p><b>Multimedia Task-based Learning Approach on EFL Students' Reading Comprehension Skills</b></p> <p>Du Xiao &amp; Gurnam Kaur Sidhu</p> <p><i>Faculty of Education, SEGi University, Malaysia</i></p>
4	007-hdy	<p><b>Smart Model of Augmented Reality in Teaching using Hand Signals Makaton among of Down Syndrome Student</b></p> <p>Nor Azril Mohd Ghazali, *Che Zalina Zulkifli, Mohd Azam Sulong, Nuraini Mohd Rani</p> <p><i>Universiti Pendidikan Sultan Idris, Malaysia</i></p>
5	020-hdy	<p><b>English Language Presentation Skills among Tertiary Students: A Case Study</b></p> <p>Qin Xiaochuan &amp; Gurnam Kaur Sidhu</p> <p><i>SEGi University, Malaysia</i></p>
6	008-hdy	<p><b>Smart Tool Kit Integrated with Augmented Reality Technology of Basic Electric and Electronic Logist for Technical and Vocational Students</b></p> <p>Nur Hazlina Abu Hassan, *Che Zalina Zulkifli, Hasnatul Nazuha Hassan, Norazril</p> <p><i>Universiti Pendidikan Sultan Idris, Malaysia</i></p>
7	021-hdy	<p><b>Service-Oriented Analysis and Design for Eisai Management Process Improvement</b></p> <p>Yung-Hsin Wang, Ying-Wei Chen, <b>Shing-Han Li</b>, Ssu-Chi Kuai, Shih-Chih Chen</p> <p><i>National Taipei University of Business, Taiwan</i></p>

Session 2

Time: 1400-1600

Venue: **Phetpirun Room**Session Chair: **Ts. Sr. Nadzirah Zainordin**

No	Paper ID	Presenter
1	016-hdy	<b>Energy Dissipator in Hydraulic Structure – A Review</b> <b>Aisyahira Melan</b> , Agusril Syamsir, M H Zawawi, N H Hassan, W N Yusairah, Nurhanani A Aziz, F Nurhikmah <i>Universiti Tenaga Nasional, Malaysia</i>
2	003-hdy	<b>Smart Street Lighting Using LoRa Technologies</b> <b>Pandapotan Siagian</b> , Albert Sagala <i>Institut Teknologi Del, Indonesia</i>
3	017-hdy	<b>Water Spilling Fluid Dynamic Analysis on Sector Gate Opening in Dam Spillway</b> <b>N H Hassan</b> , M H Zawawi, M A Abas, M R M Radzi, A Hassani, W N Yusairah, F Nurhikmah, Nurhanani A Aziz, Aisyahira Melan <i>Universiti Tenaga Nasional, Malaysia</i>
4	025-hdy	<b>Enhancement of User Profiling for Tourism Recommendation System</b> <b>Pijitra Jomsri, Ph.D.</b> , Worasit Choochaiwattana, Ph.D <i>Suan Sunandha Rajabhat University, Thailand</i>
5	023-hdy	<b>Effect of Cu on thermoelectric properties and electronic band structure of inkjet printed <math>Zn_xFe_2O_4</math> thin films</b> <b>Lim Joon Hoong</b> <i>Taylor's University, Malaysia</i>
6	001-hdy	<b>Emerging Affordable and Sustainable Housing: A Conceptual Review</b> <b>Nadzirah Zainordin</b> , Yeo Wen Yin <i>SEGi University, Malaysia</i>

Session 3

Time: 1630 -1800

Venue: **Phetpirun Room**Session Chair: **Dr. Dulyawit Prangchumpol**

No	Paper ID	Presenter
1	002-hdy	<b>Literal framework of Green supply chain Modeling</b> <b>Sana Elhidaoui</b> , Khalid Benhida, Said Elfezazi, and Abdellatif Benabdelhafid, Nadia Hamani <i>LAPSSII, EST of Safi, Cadi Ayyad University, Morocco</i>
2	018-hdy	<b>Simulation of Sediment Erosion using DEM-DPM</b> <b>Nurhanani A Aziz</b> , M H Zawawi, Aizat Mazlan, N H Hassan, W N Yusairah, F Nurhikmah, Aisyahirah Melan, Aizat Abas, Aqil Azman, Muhammad Naqib Nashrudin <i>Universiti Tenaga Nasional, Malaysia</i>
3	013-hdy	<b>Experimental Analysis of Path-loss Exponent Estimation based on lower RSSI Variance in IEEE 802.15.4</b> <b>Albert Sagala</b> , Pandapotan Siagian, Tulus P.Simanjuntak, Ramot Lubis <i>Institut Teknologi Del, Indonesia</i>
4	026-hdy	<b>Comparision Model for Attendance System Using Face Recognition</b> <b>Dulyawit Prangchumpol</b> <i>Suan Sunandha Rajabhat University, Thailand</i>

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## Conference Venue



**New Season Square Hotel (Phase 2),  
Hat Yai, Hat Yai District, Songkhla 90110, Thailand  
Phone : +66 (0) 7435 2888**

**Conference Secretariat Contact:**

IPN Education Group  
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Bandar Darulaman  
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Programme website:

[www.ipneducationgroup.org](http://www.ipneducationgroup.org)

[www.ipnconference.org](http://www.ipnconference.org)

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+6013-4234705 (Nurul Faezah Mohd Talib)

# Note





List of Abstract

No	Paper	Abstract
1	001-hdy	<p><b>Emerging Affordable and Sustainable Housing: A Conceptual Review</b></p> <p><b>Nadzirah Zainordin<sup>1</sup>, Yeo Wen Yin<sup>2</sup></b></p> <p><i><sup>1,2</sup>Centre of Building and Resilient Development (CeBSD), Faculty of Engineering and the Built Environment, SEGi University, Kota Damansara, Selangor, Malaysia</i></p> <p><b>Abstract:</b> Affordable housing is a program that introduced by the government to improve housing affordability which ensure every income earner group could afford houses, especially for low-income households. Affordable sustainable housing project has no clear definition so far but the concept of needs, which seeks to ensure that the essential needs of the poor are adequately met; and the need for addressing every limitation arising from the use of technology and activities of social elements affecting the environment's ability to meet the present and future needs, may to consider to define as general idea. This paper its to study the emergence criteria of affordable housing and sustainable housing concept to be inline by answering the term of affordable sustainable housing project. By using the latest 10 years of publication for extensive literature review methodology perhaps may contribute in enhancing the existing knowledge.</p>
2	002-hdy	<p><b>Literal framework of Green supply chain Modeling</b></p> <p><b>Sana Elhidaoui<sup>1</sup>, Khalid Benhida<sup>2</sup>, Said Elfezazi, and Abdellatif Benabdelhafid, Nadia Hamani<sup>3</sup></b></p> <p><i><sup>1,2</sup>LAPSSII, EST of Safi, Cadi Ayyad University, Morocco</i>  <i><sup>2</sup>DSC: Engineering Sciences, UCAM, Marrakech, Morocco,</i>  <i><sup>3</sup>LTI (Laboratory of Innovative Technologies), UPJV, France</i></p> <p><b>Abstract:</b> Supply chain covers a set of logistics components (procurement, storage, production, distribution...). In addition to the classical logistics components, the green supply chain integrates the environmental dimension for all of these components. This article proposes a summary bibliographic study of the green supply chain and its modeling, then a comparative study about the green supply chains modeling methods and approaches.</p>

<p>3</p>	<p>003-hdy</p>	<p><b>Smart Street Lighting Using LoRa Technologies</b></p> <p><b>Pandapotan Siagian<sup>1</sup>, Albert Sagala<sup>2</sup></b></p> <p><i><sup>1</sup>Institut Teknologi Del, Faculty of Informatics and Electrical Engineering, Computer Engineering Study Program Jl. Sisingamangaraja, Sitoluama Laguboti, Toba Samosir North Sumatera, 22381, Indonesia siagian.p@gmail.com</i></p> <p><i><sup>2</sup>Institut Teknologi Del, Faculty of Informatics and Electrical Engineering, Computer Engineering Study Program, Jl. Sisingamangaraja, Sitoluama Laguboti, Toba Samosir, North Sumatera, 22381, Indonesia albert.sagala@gmail.com</i></p> <p><b>Abstract:</b> Smart streetlight control solutions bring a totally different perspective, integrating the existing lighting infrastructure with the newest communication, hardware and software developments and providing two major benefits. LoRaWAN based Internet of Things paradigm, are the enabling keys for transforming traditional cities into smart cities, since they provide the core infrastructure behind public utilities and services. However, to be effective, IoT-based services could require different technologies and network topologies, even when addressing the same urban scenario. In this paper, we highlight this aspect and present two smart city testbeds developed in SMA Unggul DEL is a private high school located in Toba Samosir Regency, North Sumatra. The first one concerns a smart infrastructure for public lighting and relies on a heterogeneous network using the LoRaWAN short-range communication technology, whereas the second one addresses smart-building applications and is based on the LoRa low-rate, long-range communication technology. The smart street lighting scenario is discussed providing the technical details and the economic benefits of a large-scale (around 1500 light poles) flexible and modular implementation of a public lighting infrastructure, while the smart-building testbed is investigated, through measurement campaigns and simulations, assessing the coverage and the performance of the LoRa technology in a real urban scenario. Results show that a proper parameter setting is needed to cover large urban areas while maintaining the airtime sufficiently low to keep packet losses in low levels.</p>
<p>4</p>	<p>005-hdy</p>	<p><b>An Engagement in Illegal Motorcycle Street Racing: The Influence of Self-esteem</b></p> <p><b>Haziah Sa'ari<sup>1</sup>, Mohd Roslan Mohd Tahir<sup>2</sup>, Norsiah Fauzan<sup>3</sup></b></p> <p><i><sup>1</sup>Department of Social Science, Open University Malaysia, Kuala Lumpur, Malaysia <a href="mailto:jantanankmela@yahoo.com">jantanankmela@yahoo.com</a></i></p> <p><i><sup>2</sup>Faculty of Information Management Universiti Teknologi MARA, Rembau Negeri Sembilan, Malaysia azie.crystal2@gmail.com</i></p> <p><i><sup>3</sup>Faculty of Human Development and Cognitive Science, Universiti Malaysia Sarawak fnorsiah@fcs.unimas.my</i></p>

		<p><b>Abstract:</b> The aim of this study is to determine whether low self-esteem significantly influence illegal racers' intention to engage in illegal motorcycle street racing behavior as claimed by past studies. Although past studies have explored the relationships between low self-esteem and risky behavior of illegal street racing, the primary difference this study makes from past studies is odeling the Theory of Planned Behavior (TPB) and adopts structural equation odeling (SEM) to analyse the quantitative data. Data was collected from 261 illegal motorcycle street racers aged between 14 and 36 from five Wilayah Iskandar regional areas of Johor Bahru (JB) Selatan, JB Utara, Seri Alam, Kulai and Iskandar Puteri. The result concludes that the data could not explain direct relationship between low self-esteem and the respondents' intention to engage in illegal motorcycle street racing. The findings of the survey data is well supported by the findings of the qualitative data gathered in the second phase of the study. This paper presents the findings of the hypothesis tested on low self-esteem of the illegal racers understudy.</p>
<p>5</p>	<p>006-hdy</p>	<p><b>Effectiveness Level of Technology using Augmented Reality in Education: Learning Visual Arts Education in Secondary Students</b></p> <p><b>Nuraini Mohd Rani, *Che Zalina Zulkifli, Mohd Fauzi Sedon, Nurhazlina Hassan</b></p> <p><i>Computer Department, Faculty of Art, Computing and Creative Industry, Sultan Idris Education University, 35900, Tanjong Malim, Perak, Malaysia chezalina@fskik.upsi.edu.my</i></p> <p><b>Abstract:</b> Teaching Aid (BBM) is an important element for all educators. Through the data obtained from 6 schools around Alor Setar, Kedah as a whole agreed that the subject of Visual Art Education is difficult to understand if teaching is conducted verbally without a realistic image. This is evidenced through trial session using existing multimedia applications without AR technology. Therefore, this research proposes a toolkit called E-SeniArca through AR technology integration with smart systems adopted so the level of student tendency will increase. The method used in this research is the concept of case study and sampling of data to enable the research to run smoothly and clearly. This research is to design, transfer, develop and test the effectiveness of AR technology utilization among students of realistic image concepts for the subject of Secondary Visual Arts education. E-SeniArca is an interactive toolkit that can be used to teaching and learning objectives more effectively. By applying this AR technology concept in the Visual Art Education syllabus for the Sculpture subtitle, it will help and give a clearer picture of the students.</p>
<p>6</p>	<p>007-hdy</p>	<p><b>Smart Model of Augmented Reality in Teaching using Hand Signals Makaton among of Down Syndrome Student</b></p> <p><b>Nor Azril Mohd Ghazali, *Che Zalina Zulkifli, Mohd Azam Sulong, Nuraini Mohd Rani</b></p> <p><i>Fakulti Sains Komputeran Industri Kreatif, Unversiti Pendidikan Sultan Idris,</i></p>

		<p>Tanjong Malim, Perak, Malaysia  chezalina@fskik.uspi.edu.my</p> <p><b>Abstract:</b> Makaton is a means of communication involving the use of symbols or images, movements or hand signs, facial expressions as well as specific speech for the down syndrome groups in assisting the development of language and communication skills. In addition to less intellectual capacity, children with Down syndrome have limited of concentration. This aspect is very challenging for the teaching of learning among children suffering from down syndrome, including the teaching of the Makaton signal language. Therefore, there should be a method of teaching and learning of Makaton to the down syndrome to suit their ability. The purpose of this study was to facilitate the use of Augmented Reality (AR) in the teaching of hand-held makings in the lower-level Down syndrome suffering children. Based on the 8 basic features of the language of hand signaling against the child's syndrome down as a guideline. An overview of teachers and parents' perceptions on the use of software and integration of AR in pedagogical instructional handbooks and surveys on student perceptions about their use in acquiring learning skills and for living a daily life was conducted based on the specific objective of the study. Case study research design was applied using survey, observation and interview methods as the main instrument of the study. By applying the concept of direct instruction (direct instruction), an analysis framework will be carried out. The results of the study were modules for Down Syndrome suffering children from the age range of 7 to 13 years old.</p>
7	008-hdy	<p><b>Smart Tool Kit Integrated with Augmented Reality Technology of Basic Electric and Electronic Logist for Technical and Vocational Students</b></p> <p><b>Nur Hazlina Abu Hassan, *Che Zalina Zulkifli, Hasnatul Nazuha Hassan, Norazril</b></p> <p><i>Computer Department, Faculty of Art, Computing and Creative Industry Sultan Idris Education University, 35900, Tanjong Malim, Perak, Malaysia</i>  chezalina@fskik.uspi.edu.my</p> <p><b>Abstract:</b> Technology is one of the factors that also influences innovation in supporting learning activities as well as having the potential to help deliver meaningful learning to students. Electrical and electronic subjects are important subjects in technical and vocational schools as well as in daily school divisions. It is difficult to understand how the concept of electric current flows for example if it is verbally described by a printed reference. The problem of lack of tech media to help understanding the concept of electricity and electronics is limiting the minds of young people in engineering. At this juncture, the lack of tool kits in education that has the technical characteristics that can illustrate the conditions that exist on the basis of electricity and electronics make this research run. The method used throughout this research is a case study which is a teaching material that expects the application of the theory or concept to the real situation and does not run away from the scope and methodology of other studies. Therefore, this research proposal is to design, move, develop and test the</p>

		<p>effectiveness of Augmented Reality (AR) technology in the focus of electrical and electronic subjects as a teaching aid as well as reference materials to technical and vocational students. The results of this research will make the technology increasingly in demand by researchers and educators to give more attention to the emergence of technology to further integrate this matter so that teaching and learning become more effective and helpful in STEM field in the future.</p>
8	013-hdy	<p><b>Experimental Analysis of Path-loss Exponent Estimation based on lower RSSI Variance in IEEE 802.15.4</b></p> <p><b>Albert Sagala<sup>1</sup></b>, Pandapotan Siagian<sup>1</sup>, Tulus P.Simanjuntak<sup>1</sup>, Ramot Lubis<sup>2</sup></p> <p><i><sup>1</sup>Faculty of Informatics and Electrical Engineering, Institut Teknologi Del, Indonesia</i>  <i><sup>2</sup>Binus University, Indonesia</i></p> <p><b>Abstract:</b> Indoor localization has received significant attention over the last decade. The transceivers distance can be estimated by signal strength (SS) received in the receiver based on the path loss model obtained. For WSNs, it has been the most popular technique due to the simplicity of measuring the power received on a receiver. However, a distance estimation accuracy is limited by many factors, such as multipath propagation, shadowing and intrinsic hardware issue. To further improve the localization accuracy, a method to estimate the path-loss exponent (PLE) based on SS measurement variances were evaluated empirically. We use two motes to get SS from several points, from distance <math>d=1</math> m until <math>d=30</math> m. In this study, a lower received signal strength (RSSI) variance from each measurement point (lower distance variance) was used as a reference to estimate the PLE. To the best of the author's knowledge, this experimental analysis to evaluate different distance reference to estimate the PLE has never been reported before.</p>
9	016-hdy	<p><b>Energy Dissipator in Hydraulic Structure – A Review</b></p> <p><b>Aisyahira Melan<sup>1,a</sup></b>, Agusril Syamsir<sup>2</sup>, M H Zawawi<sup>1</sup>, N H Hassan<sup>1</sup>, W N Yusairah<sup>1</sup>, Nurhanani A Aziz<sup>1</sup>, F Nurhikmah<sup>1</sup></p> <p><i><sup>1</sup>Department of Civil Engineering, Universiti Tenaga Nasional, Kajang, Malaysia.</i>  <i><sup>2</sup>Institute of Energy Infrastructure (IEI), College of Engineering, Universiti Tenaga Nasional, Kajang, Malaysia</i></p> <p><b>Abstract:</b> Energy dissipator is a device designed to protect downstream areas from erosion by minimizing the flow velocity up to an acceptable limit. It is an important element of hydraulic structures as a transition between the high-velocity flow and the sensitive tailwater. This paper reviews energy dissipators in connection with dam and spillway structure. This paper also describes the different type of energy dissipators with different appurtenances used in hydraulic structures for protection work. It includes topics such as energy dissipation of block ramp, hydraulic jump type stilling basin, stepped spillway and the deflector (flip bucket and ski-jump bucket).</p>

<p>10</p>	<p>017-hdy</p>	<p><b>Water Spilling Fluid Dynamic Analysis on Sector Gate Opening in Dam Spillway</b></p> <p><b>N H Hassan<sup>1</sup></b>, M H Zawawi<sup>1</sup>, M A Abas<sup>2</sup>, M R M Radzi<sup>3</sup>, A Hassani<sup>3</sup>, W N Yusairah<sup>1</sup>, F Nurhikmah<sup>1</sup>, Nurhanani A Aziz<sup>1</sup>, Aisyahira Melan<sup>1</sup></p> <p><i><sup>1</sup>Department of Civil Engineering, Universiti Tenaga Nasional, 43000 Kajang, Selangor, Malaysia</i>  <i><sup>2</sup>School of Civil Engineering, Universiti Sains Malaysia, Engineering Campus, Penang, Malaysia</i></p> <p><b>Abstract:</b> This study analyses the fluid dynamic on the sector gate in dam spillway with 16 ft gap opening. The parameters determined on this study are velocity, pressure and streamline. A 3D computational fluid dynamics (CFD) model of the dam spillway structure and the fluid boundary condition was developed using FLUENT. Result of the CFD model show that the highest velocity value which is 14.8 m/s and the largest hydraulic jump is at the middle of the dam spillway between the two energy dissipators. The hydraulic jump type that occurred which is oscillating jump is determined by the Froude value of 2.988. The high velocity contributes to the large hydraulic jump that then gives more damaging effect to the stilling basin surface. Future mitigation measures have to take to ensure the sustainability of the structural integrity.</p>
<p>11</p>	<p>018-hdy</p>	<p><b>Simulation of Sediment Erosion using DEM-DPM</b></p> <p><b>Nurhanani A Aziz<sup>1</sup></b>, M H Zawawi<sup>1</sup>, Aizat Mazlan<sup>1</sup>, N H Hassan<sup>1</sup>, W N Yusairah<sup>1</sup>, F Nurhikmah<sup>1</sup>, Aisyahirah Melan<sup>1</sup>, Aizat Abas<sup>2</sup>, Aqil Azman<sup>2</sup>, Muhammad Naqib Nashrudin<sup>2</sup></p> <p><i><sup>1</sup>Department of Civil Engineering, Universiti Tenaga Nasional, 43000 Kajang, Selangor, Malaysia</i>  <i><sup>2</sup>School of Mechanical Engineering, Universiti Sains Malaysia, 14300 Parit Buntar, Pulau Pinang, Malaysia</i></p> <p><b>Abstract:</b> Coastal erosion is a natural phenomenon that occur on worldwide site of coastal bank. The impact of the natural forces such as wind and waves can change the formation of the shoreline and leads to coastal erosion. Eventually, this work is aimed to conduct a simulation on the sediment erosion by using Discrete Element Method-Discrete Particle Method (DEM-DPM). The simulation works reported that the number of particles change as the time increase due to the generation of waves. Furthermore, the most critical division can be determined through this simulation as the number of particle start to change from its initial state. It is also found that the lengthen of time would generally increase the number of particles erode and change the sand formation that will lead to erosion. In addition, the findings have been validated with Smooth Particle Hydrodynamics method to investigate the effectiveness and accuracy of the numerical analysis of DEM-DPM. Based on the findings, Division A is the most critical division since the particle on that division is erode due to the behaviour of the waves.</p>

<p>12</p>	<p>019-hdy</p>	<p><b>Multimedia Task-based Learning Approach on EFL Students' Reading Comprehension Skills</b></p> <p><sup>1</sup> Du Xiao &amp; <sup>2</sup>Gurnam Kaur Sidhu</p> <p><i><sup>1&amp;2</sup> Faculty of Education, SEGi University, Kota Damansara, PJU5, Petaling Jaya, 47810 Selangor, Malaysia</i></p> <p><b>Abstract:</b> The use of multimedia tools in the teaching and learning process helps to bring content to life and student-centered interest and learning gains. Likewise, student-centered Task-based Learning Approach makes language learning more meaningful and as learners work collaboratively to fulfill the language task. The main purpose of this case study was to investigate the effects of Multimedia Task-based Learning Approach on learners' reading comprehension skills. This experimental study involving an experimental and control group study involved one randomly selected Middle School located in Taikang County, Henan Province, China. The sample comprised 42 students from an intact EFL classroom where data were collected through tests and a survey questionnaire. The findings of this study revealed that Multimedia Task-based Learning had significantly improved reading comprehension skills of students in the experimental group. Results further indicated that students held a positive attitude towards the Task-based Learning Approach. Inferential statistics however revealed that there was no significant difference in respondents' perceptions based on gender. These findings imply that Multimedia Task-based Learning Approach should be embraced as an alternative learning approach in the EFL classroom for achieving positive student gains in language learning.</p>
<p>13</p>	<p>020-hdy</p>	<p><b>English Language Presentation Skills among Tertiary Students: A Case Study</b></p> <p><sup>1</sup> Qin Xiaochuan &amp; <sup>2</sup> Gurnam Kaur Sidhu</p> <p><i><sup>1&amp;2</sup> Faculty of Education, SEGi University, Kota Damansara, PJU5, Petaling Jaya, 47810 Selangor, Malaysia</i></p> <p><b>Abstract:</b> Oral English language presentations are often viewed as a proficient means to enhance the English speaking ability demanded by higher education and future careers. Yet in many institutions in China listening and speaking are often regarded as 'black sheep' in their EFL classrooms. Therefore, the main aim of this case study was to investigate EFL tertiary students' perspectives of oral presentations and their self-perceived performance on oral presentation skills with a focus on delivery, content, organization and language use. This case study involved a total of 119 EFL students from four randomly selected EFL classes in an institution of higher learning in located in the province of Shanxi, China. Data were collected via a questionnaire and semi-structured interviews with 11 volunteer students. The findings revealed that all students agreed that oral presentations were important for language learning and future careers but students' self-perceived</p>

		<p>confidence and ability in all four aspects of oral presentations was low. The findings imply that instructors need to understand the importance of oral presentations in their EFL classrooms and reflect on their practices so that necessary steps can be taken to enhance students' speaking skills.</p>
14	021-hdy	<p><b>Service-Oriented Analysis and Design for Eisai Management Process Improvement</b></p> <p><b>Yung-Hsin Wang<sup>1</sup>, Ying-Wei Chen<sup>1</sup>, Shing-Han Li<sup>2</sup>, Ssu-Chi Kuai<sup>2</sup>, Shih-Chih Chen<sup>3</sup></b></p> <p><i><sup>1</sup>Department of Information Management, Tatung University, Taipei City, Taiwan</i>  <i><sup>2</sup>Department of Account Information, College of Business National Taipei University of Business, Taipei City, Taiwan</i>  <i><sup>3</sup>Department of Information Management, National Kaohsiung University of Science and Technology, Kaohsiung City, Taiwan</i></p> <p><b>Abstract:</b> The implementation of National Health Insurance and various health care systems had an impact on the revenues of all hospitals. The hospital must pay more attention to financial issues to maintain their market competitiveness. Therefore, how to effectively use medical resources and reduce hospital's operational costs is challenging. In the field of medical Eisai management, this study attempts to use service-oriented architecture (SOA) to improve the Eisai management processes in hospital that used to have alignment problems with business and technology. By adopting service-oriented modeling and architecture (SOMA) method for service-oriented analysis and design of the medical Eisai related processes, a SOA layer of Eisai management complying with BPEL (Business Process Execution Language) standard for service orchestration is established. The loosely coupled, cross-platform solution has high-degree service reusability and integration features. The results show that building the interface through Web service standards not only can integrate all heterogeneous legacy systems in hospital but also increase system's agility that when the business process or system changes, the features of service reusability and composability with the SOA layers design can help, thus reducing the cost for system maintenance and update.</p>
15	023-hdy	<p><b>Effect of Cu on thermoelectric properties and electronic band structure of inkjet printed Zn<sub>x</sub>Fe<sub>2</sub>O<sub>4</sub> thin films</b></p> <p><b>Lim Joon Hoong</b></p> <p><i>School of Engineering, Faculty of Built Environment, Engineering, Technology and Design, Taylor's University Lakeside Campus, Subang Jaya, Malaysia</i></p> <p><b>Abstract:</b> Zn<sub>x</sub>Cu<sub>(1-x)</sub>Fe<sub>2</sub>O<sub>4</sub> thin films were deposited by using inkjet printing and Zn<sub>x</sub>Cu<sub>(1-x)</sub>Fe<sub>2</sub>O<sub>4</sub> bulk pellets were synthesized through solid state method. Multiple print cycles were required to deposit homogeneous Zn<sub>x</sub>Cu<sub>(1-x)</sub>Fe<sub>2</sub>O<sub>4</sub> thin films. The obtained samples were characterized by X-ray diffraction (XRD), electrical conductivity, Seebeck coefficient and thermal conductivity. The XRD results confirmed the</p>



		<p>formation of cubic spinel structure of <math>Zn_xCu_{(1-x)}Fe_2O_4</math> thin films and pellets. The electrical conductivity of <math>Zn_xCu_{(1-x)}Fe_2O_4</math> (<math>x=0.0</math>) thin films sintered at 400 °C (<math>1.185 \times 10^{-3}</math> S/cm) had the higher values. The electrical conductivity of <math>Zn_xCu_{(1-x)}Fe_2O_4</math> thin films was about 11% higher compared to <math>Zn_xCu_{(1-x)}Fe_2O_4</math> pellets. The electronic band structure shows <math>Zn_xCu_{1-x}Fe_2O_4</math> is an indirect band gap material. The Fermi level of <math>Zn_xCu_{1-x}Fe_2O_4</math> was shift downward to the valence conduction band. It indicated <math>Zn_xCu_{1-x}Fe_2O_4</math> is a p-type semiconductor. Seebeck coefficient of <math>Zn_xCu_{(1-x)}Fe_2O_4</math> thin films and pellets remained positive, confirming charge transport by hole carries. The presence of Zn served to decrease thermal conductivity of <math>Zn_xCu_{(1-x)}Fe_2O_4</math> by 8 W/mK as Zn content increased from 0 to 1. The similarity observed in the change of properties might indicate that similar mechanisms are dominant in both the <math>Zn_xCu_{(1-x)}Fe_2O_4</math> bulk pellets and the thin films.</p>
16	025-hdy	<p><b>Enhancement of User Profiling for Tourism Recommendation System</b></p> <p><sup>1</sup>Pijitra Jomsri, Ph.D., <sup>2</sup>Worasiit Choochaiwattana, Ph.D</p> <p><sup>1</sup>Faculty of Science and Technology, Suan Sunandha Rajabhat University, SSRU, Bangkok, Thailand  <a href="mailto:Pijitra.jo@ssru.ac.th">Pijitra.jo@ssru.ac.th</a>, <a href="mailto:Pijitra.jo@gmail.com">Pijitra.jo@gmail.com</a></p> <p><sup>2</sup>College of Creative Design and Entertainment Technology, Dhurakij Pundit University, DPU, Bangkok, Thailand  <a href="mailto:Worasiit.cha@dpu.ac.th">Worasiit.cha@dpu.ac.th</a></p> <p><b>Abstract:</b> The tourist information recommendation system is useful for both tourists themselves and tourist operators since this recommendation system can help tourists spend less time searching for tourist attraction information and also be a channel for public relation to create incentives for tourists to use the services. User Profiles is an important part of the information recommendation system that is responsible for finding the users' interest and is a good representative for each tourist. However, creating a user profile to suitable each user in the tourist information recommendation system is still considered as challenging due to insufficient data collection. In addition, the use of social networks at present is becoming increasingly popular and is a source of information that has many users which can be extracted to represent the interests of each user. Therefore, this research has studied the recommendations for creating a user Profile for the tourism information recommendation system in Thailand.</p>
17	026-hdy	<p><b>Comparison Model for Attendance System Using Face Recognition</b></p> <p><b>Dulyawit Prangchumpol</b></p> <p>Faculty of Science and Technology, Suan Sunandha Rajabhat University, SSRU, Bangkok, Thailand  <a href="mailto:Dulyawit.pr@ssru.ac.th">Dulyawit.pr@ssru.ac.th</a>, <a href="mailto:Dulyawit@gmail.com">Dulyawit@gmail.com</a></p> <p><b>Abstract:</b> The problem about checking attendant is the main problem of teacher in nowadays. In order to solve this problem, there are many</p>

		<p>research which gave attention the solution by presenting the facing attendant system. However, in my study, these study still lack of the efficiency about correct the face and students cannot verify or pose to edit the data when there is error in class. With this reason, this research aims to develop the facing attendant system to be more effective and the mechanic of the system which students can easily verify. The experiment of this research is to find the way to recognize the face by using the technique of Local Binary Pattern Histogram (LBPH) recognition to compare with Android Face Recognition with Deep Learning which can correctly recognize up to 96%. Moreover, this research had been developed the way to show the result on screen in real time on the application so that students can verify and edit their data in case of there is an error.</p>
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