

**PROCEEDINGS**

**DTAS-2019**

**2nd International Symposium  
on Development of new Technologies in  
Engineering & Applied Science Research**

**Venue: Hotel Mystays Ochanomizu Conference Center**

**Tokyo, Japan**

**Date: June 22-23, 2019**



# ***CONFERENCE BOOK OF ABSTRACT PROCEEDINGS***

*Consortium-ET*

Consortium of Engineering & Technology



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# **Book of Abstracts Proceedings**

**2nd International Symposium on Development of new Technologies in Engineering & Applied Science Research (DTAS-2019)**

Tokyo, Japan  
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Proceedings of the 2nd International Symposium on Development of new Technologies in Engineering & Applied Science Research

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***2nd International Symposium on Development of new  
Technologies in Engineering & Applied Science Research  
(DTAS-2019)***

**Venue: Hotel Mystays Ochanomizu Conference Center, Japan**

**Conference Theme:** Provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Engineering and Technology.



## **ADVISORY BOARD**

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Conference Supervisor

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**Natthawut Kaewpitoon (Ph.D.)**

Conference Cordinator

**Email:** contact@consortium-et.com

## CONFERENCE TRACKS

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

## CONFERENCE CHAIR MESSAGE

### **Michael Sasaoka**

“International Conference of Consortium of Engineering & Technology” is a platform that thrives to support the worldwide scholarly community to analyze the role played by the multidisciplinary innovations for the betterment of human societies. It also encourages academicians, practitioners, scientists, and scholars from various disciplines to come together and share their ideas about how they can make all the disciplines interact in an innovative way and to sort out the way to minimize the effect of challenges faced by the society. All the research work presented in this conference is truly exceptional, promising, and effective. These researches are designed to target the challenges that are faced by various sub-domains of the social sciences and applied sciences.

I would like to thank our honorable scientific and review committee for giving their precious time to the review process covering the papers presented in this conference. I am also highly obliged to the participants for being a part of our efforts to promote knowledge sharing and learning. We as scholars make an integral part of the leading educated class of the society that is responsible for benefitting the society with their knowledge. Let’s get over all sorts of discrimination and take a look at the wider picture. Let’s work together for the welfare of humanity for making the world a harmonious place to live and making it flourish in every aspect. Stay blessed.

Thank you.

Michael Sasaoka

Conference Chair

Email: [contact@consortium-et.com](mailto:contact@consortium-et.com)

# CONFERENCE AGENDA

DATE: June 22-23, 2019

LOCATION: Hotel Mystays Ochanomizu Conference Center

DAY: Saturday-Sunday

EVENT TITLE: 2nd International Symposium on Development of new Technologies in  
Engineering & Applied Science Research (DTAS-2019)

## Start Time

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

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

# CONFERENCE AGENDA

DATE: June 22-23, 2019

LOCATION: Hotel Mystays Ochanomizu Conference Center

DAY: Saturday-Sunday

EVENT TITLE: 2nd International Symposium on Development of new Technologies in  
Engineering & Applied Science Research (DTAS-2019)

Session: 01  
Room: 01  
10:00 am 01:00 pm: Presentation Session  
Track A: Business, Economics, Social Sciences and Humanities

Paper ID	Manuscript Title	Presenter Name
BSHDS-JUNE2019-104	Exploring the Whether Adolescents Perception of Deviance or Non-Deviance When Using the Internet Increases or Decreases Deviant Behavior While Using the Internet	Annie Daniel
BSHDS-JUNE2019-105	Good Corporate Citizens: Improving Workplace Environment by Promoting Corporate Citizenship Behavior in Hospitality Businesses	Milos Bujisic, PhD
BSHDS-JUNE2019-107	Service Recovery Types, Negative WOM and Repurchase Intention: Neutrality and Previous Experience as Moderators	Chooi Mun Cheong
BSHDS-JUNE2019-108	Is recovery worthy to forgive? The Effect of Service Recovery Strategies on Repurchase Intentions	Lee Ting-Chi
BSHDS-JUNE2019-110	TQM managerial orientation and organisational learning: some qualitative evidence from the MENA region	Ebrahim Soltani

### Track B: Engineering, Technology & Applied Sciences

DTAS-JUNE19-104	The Implementation of Science Techno Park for Renewable Energy Introduction in the Remote Island Communities	Dr. Eng. Meita Rumbayan
DTAS-JUNE19-105	Chatbot for real-time tracking of construction project	Ms.Donyawan Kritaisong
DTAS-JUNE19-106	Transmitted Torque Analysis of Coaxial Magnetic Gears with Different Pole-Pair Numbers	Mr. Hao-Pin Wu
DTAS-JUNE19-108	Line of Balance Scheduling Algorithm for Resources Optimization In Linear Infrastructure Project: A Case Study of an Elevated Highway Construction Project	Thanakorn UThai
DTAS-JUNE19-109	A Study on Quality of Work Life of Cambodian Female Civil Engineers	Monika Ea
DTAS-JUNE19-101	Design and Implementation of a High Efficient IoT Middleware	Prof. Hsu-Yang Kung
DTAS-JUNE19-107	A Genetic Algorithm for the Scheduling Problem in the Polarizer Manufacturing Process - A Case Study	Prof. Chi-Yang Tsai

**Lunch Break: (01:00 pm - 02:00 pm)**

# CONFERENCE AGENDA

DATE: June 22-23, 2019

LOCATION: Hotel Mystays Ochanomizu Conference Center

DAY: Saturday-Sunday

EVENT TITLE: 2nd International Symposium on Development of new Technologies in  
Engineering & Applied Science Research (DTAS-2019)

Session: 02  
Room: 01  
02:00 pm - 04:00 pm: Presentation Session  
Track A: Business, Economics, Social Sciences and Humanities

Paper ID	Manuscript Title	Presenter Name
TKS-469-102	A Step Towards Digital Inclusion under Thailand's Digital Economy and Society Development Plan	Mr.Polawat Witoolkollachit
TKS-469-103	Copyrights on the Commercialization of Over-the-Top Media Content in Indonesia	Tasya Safiranita Ramli
TKS-469-104	Employment Dispute Settings in Industrial Relationship Based on Simple, Quick and Lightweight Cost	Sherly Ayuna Putri
TKS-469-105	Enhancing skills for the future employment scene 2020 from the theory of connectivity: Shared and adaptive Personal Learning Environments in Spanish context	Eva Maria Olmedo Moreno
TKS-469-105A	Enhancing skills for the future employment scene 2020 from the theory of connectivity: Shared and adaptive Personal Learning Environments in Spanish context	Jorge Expósito López
TKS-469-106	Targeting Poor Student with Proxy Means Test	Tapanat Paiboonsin
<b>Track c: Medical Medicine and Health Study</b>		
TKM-469-105	Pharmacogenomics of Docetaxel Response in Prostate Cancer: A Precision Medicine Initiative	Edward Uchio, M.D

## Closing Ceremony

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DATE: June 22-23, 2019

LOCATION: Hotel Mystays Ochanomizu Conference Center

DAY: Saturday-Sunday

EVENT TITLE: 2nd International Symposium on Development of new Technologies in  
Engineering & Applied Science Research (DTAS-2019)

Session: 01  
Room: 02  
10:00 am - 01:00 pm: Presentation Session  
Track A: Business, Economics, Social Sciences and Humanities

Presenter Name	Manuscript Title	Paper ID
MRSSM-069-ANI101	The Study of Nakornchaiburin, Surin Province, Thailand Travelling Routes	Parichart Veereprasit
MRSSM-069-ANI102	Management of Rail Transport Efficiency; A Case Study of Bangkok - Chiang Mai Route	Jurairat Wongduen
MRSSM-069-ANI103	Efficiency of Product Demand Forecasting In Nava Nakorn Industrial; Case ABC (Thailand) Company	Phawida Seeon
MRSSM-069-ANI104	Touristic Logistics Management; A Case Study of The Phenomenon of Naga Fireballs in Phon Phisai District, Nong Khai Province	Phramaha Ronnarong Kenraksa
MRSSM-069-ANI105	Factors Affecting to Safety Behavior of Passenger Transport Driver: A Case Study of Transport Company Limited, Bangkok Udon Thani Route	Rewat Jaresitthikunchai
MRSSM-069-ANI106	Tourism Logistics Management for Floating Market; The Case of Lam Phaya Temple, Lam Phaya Subdistrict, Bang Len District, Nakhon Pathom, Thailand.	Tunyaporn Minaboon
MRSSM-069-ANI107	The Development of Transport Resource Database Management System: A Case Study of Transport Go Company	Chanicha Moryadee
MRSSM-069-ANI108	The Study of the Distribution Center Form: A Case Study of FBR Logistics Co., Ltd.	Sujin Thongsroy
MRSSM-069-ANI109	Logistics Service Quality of Public Land Transport Service by P-TRANSQUAL Model A Case Study Nakhon Ratchasima Bangkok	Worawit Seyangnok
MRSSM-069-ANI110	Factors Affecting Passenger Satisfaction in Using Chan Tour Company Service, Rayong North Eastern Route	Weerapaht Jaempanya

**Lunch Break: (01:00 pm - 02:00 pm)**



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DATE: June 22-23, 2019

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DAY: Saturday-Sunday

EVENT TITLE: 2nd International Symposium on Development of new Technologies in  
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Session: 02  
Room : 02  
10:00 am - 12:30 pm: Presentation Session  
Track A: Business, Economics, Social Sciences and Humanities

Presenter Name	Manuscript Title	Paper ID
MRSSM-069-ANI112	Incentive Factors Associated with High-tech Talents Aggregation in the Industry Cluster	Jialu Shi
MRSSM-069-ANI113	The Need for Further Study in Bachelor of Business Administration in International Logistics Management Program of the Students in Eastern Thailand	Wissawa Aunyawong
MRSSM-069-ANI114	A New Approach for Measuring CO2 emissions in MENA countries: A Nonlinear Panel Smooth Transition Model	Younes Ben Zaied
MRSSM-069-ANI115	The use of Rasch analysis to inform teaching, learning and assessment in mathematics	Tao Wang YU
MRSSM-069-ANI116	Gamification: Model WTO	Andrew Yuen
MRSSM-069-ANI117	Communication for Development of Instructional Model to Enhance System Thinking Process for Undergraduate Students	Chitpong Ayasanond
MRSSM-069-ANI118	The Impact of Foreign Investors and Domestic (Chinese) Investors on Chinese Stock Market after declaring Shanghai-Hong Kong Stock Connect	Gab-Je Jo

## Closing Ceremony

## CONFERENCE AGENDA

DATE: June 22-23, 2019

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Engineering & Applied Science Research (DTAS-2019)

### Participants Registered As Listener/ Observer

The following Scholars/ practitioners who don't have any paper presentation, however they will attending the conference as delegates & observers.

**Official ID:** BSHDS-JUNE2019-114A

Haeyoung Ryu

Hansei University Gunpo, Korea

**Official ID:** TKS-469-102A

Mr.Danaiwit Charnsamorn

Thammasart University , Thailand

**Official ID:** TKS-469-102B

Ms.Wannasiri Bhuasiri

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## CONFERENCE AGENDA

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### Conference Day 02 (June 23, 2019)

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



*2nd International Symposium on Development of new Technologies  
in Engineering & Applied Science Research (DTAS-2019)*

Tokyo, Japan

ISBN: 978-623-6562-88-8

***TRACK A***

***ENGINEERING, TECHNOLOGY & APPLIED SCIENCES***

## Design and Implementation of a High Efficient IoT Middleware

<sup>1\*</sup>Prof. Hsu-Yang Kung, <sup>2</sup>Ren-Wu Yu, <sup>3</sup>Mei-Hsien Lin

<sup>1,2,3</sup>Department of Management Information Systems-National Pingtung University of  
Science and Technology, Taiwan

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**Keywords:** Internet of Things, Information Differentiation Transmission, Lightweight, Virtualization Technology

As the number of terminal devices and wireless sensors increasing, the IoT network and computing overhead will be a critical issue. This paper proposed a High Efficient IoT (HEH IoT) Middleware, which is composed of (1) Sensor Service Gateway (SSG), (2) Hybrid Information-Differentiation Transmission (IDT) Mechanism, (3) Traffic Prediction (TP) Mechanism, and (4) Fine-grained Resource Allocation (FRA) Mechanism. The proposed HEH IoT Middleware, which is a three-tiered cluster architecture composed of SSGs as the intermediary platforms between the middleware server and the terminal devices including heterogeneous sensors, video cameras, etc. A SSG is responsible for Information-Differentiation transmission control within a cluster and detecting whether the terminal devices are well operating or not. The Information-Differentiation transmission control is based on the proposed TP mechanism, which adopts the machine learning method to predict the transmission traffic and prediction errors. The TP mechanism also adopts the Kalman filter to reduce the prediction errors and achieve more realistic traffic prediction. At the middleware server site, based on computing virtualization technology, the Fine-grained Resource Allocation (FRA) mechanism is proposed to achieve the computing resource adaptation control. The FRA mechanism is composed of three kinds of system control categories, which are VM-based, Event-based, and Agent-based computing mechanism. According to different application scenarios, the FRA mechanism determines the appropriate computing category. The VM-based mechanism is response for the video services, which need large computing resources. The Event-based mechanism is responsible for the text data for daily or regular service. The Agent-based mechanism is responsible for the urgent service by determining the abnormal situations. Docker lightweight virtualization technology is adopted to implement the VM-based, Event-based, and Agent-based computing mechanism. Performance evaluations reveal that the proposed control mechanism achieves high efficient operations.



## **The Implementation of Science Techno Park for Renewable Energy Introduction in the Remote Island Communities**

\*Dr. Eng. Meita Rumbayan, ST, M.Eng

Electrical Engineering-Sam Ratulangi University, Indonesia

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**Keywords:** Community,Sustainable Development ,North Sulawesi

This paper is the progress report of research action about solar energy technology implementation for a coastal community in the remote island which is located in Talaud island, North Sulawesi, Indonesia. Talaud island that located in the border of Indonesia and Phillipines is needed to be an attention for sustainable development goals. Energy is one of the important issue and the necessity of good living for not only urban communities but also rural communities. The research method is done by literature review, data collection, data analysis and case study of pilot project in science techno park that develop in Kiama village. The discussion based on literature review, data analysis and case study gives some recommendations for further study in term of scenario and guideline as well as bussiness plan for the sustainable development of the small island communities.

## Chatbot for Real-Time Tracking of Construction Project

<sup>1\*</sup>Ms.Donyawan Kritaisong, <sup>2</sup>Siam Charoenseang

<sup>1,2</sup>Institute of Field Robotics (FIBO)-King Mongkuts University of Technology  
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**Keywords:** Construction Project, Chatbot, Real-time Tracking, Dialogflow, Firebase.

This research presents the development of a chatbot for real time construction project tracking system. Usually, the generation of S-curve chart on weekly report causes major delay during construction. Since weekly project monitoring may not be good enough anymore for the current situation where everyone is working against time, it is better to have a system that collects daily performance and generates reports on both of document and dashboard automatically. That system can solve problems that cause the delay of work quickly. The value of system is analyzed using a value proposition canvas and the needs of operators and project managers confirmed the analyzed results. The tracking system will help projects operators and manager easily track construction progress and also create daily reports for usual submission. To be more user friendly, the systems must be on the platform used in daily life. Therefore, this system is developed to use on the Line application, a popular chat application in Thailand. For this reason, the chatbot system has been developed with Dialogflow software that works together with the Firebase database to support API connections from Line and send data to the project privately through website to compare between plan and actual performance by a real-time dashboard. The users have tested a system and found that it can make the operator and project manager understand the situation causing the delay and this prevents and reduces the reporting time error more than 20%.

## **Transmitted Torque Analysis of Coaxial Magnetic Gears with Different Pole-Pair Numbers**

<sup>1\*</sup>Mr. Hao-Pin Wu, <sup>2</sup>Yi-Chang Wu, <sup>3</sup>Mi-Ching Tsai

<sup>1,2,3</sup>Mechanical Engineering-National Yunlin University of Science and Technology,  
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**Keywords:** Magnetic gear, Finite-element analysis, Transmitted torque

The transmitted torque is an important performance index of coaxial magnetic gears. This study focuses on the effects of pole-pair numbers on the maximum torque capacity and torque ripple of coaxial magnetic gears. Coaxial magnetic gears have the advantages of highly intensive of torque capacity and high reliability. Owing to the magnetic resistance between the pole piece and the medium of air, the torque ripple is generated during the magnetic gear operation. In magnetic gear design, the maximum torque capacity is considered higher the better, and the torque ripple should be lower the better. A commercial Finite-element analysis software ANSYS/Maxwell 2D is applied to simulate the transmitted torque and torque ripple of coaxial magnetic gears. The model parameters including size and inertia are designed via Autodesk/Inventor. In the analysis, all of the magnetic gear models are in the same size of diameter and axial length. The only difference of models is pole pair numbers, with variable numbers of permanent magnets and pole pieces. The results of finite-element analysis have shown that there are certain relationships between pole pair numbers and torque performance. It reveals that the sum of pole pair numbers is inversely proportional to maximum torque capacity, yet the torque ripple has not been proved to the relationship. Finally, the possible design characteristics of reducing torque ripple have been list.



## **A Genetic Algorithm for the Scheduling Problem in the Polarizer Manufacturing Process - A Case Study**

<sup>1\*</sup>Prof. Chi-Yang Tsai, <sup>2</sup>Henry Jen, <sup>3</sup>Hsiang-Ying Ten

<sup>1,2,3</sup>Industrial Engineering and Management-Yuan Ze University, Taiwan

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**Keywords:** Job Scheduling, Genetic Algorithm, Sequence-Dependent Setup Time, Flow shop, Polarizer

As one of the key components of display panels, demand for polarizer is growing rapidly in recent years. Facing requirements for various product specification and sizes, it is important for polarizer manufactures to properly arrange the process of customer orders to meet their respective due dates. This study focuses on the front-end manufacturing processes of polarizer films. Proper setups are required before starting processing new rolls of material or work-in-process. The types of setup operations to perform is dependent of the job sequence. As there are a large number of customized products involved, job scheduling poses a great challenge to the case company. The genetic algorithm is used to develop a scheduling method. Numerical experiments are conducted with test instances generated based on the actual order data collected from the case company. Three classes of test instances are generated: small, medium and large scales with each test instance containing 50, 100 and 200 orders (jobs), respectively. Each class has 10 test instances. The results of the conducted numerical experiment show the developed method is able to improve initial solutions by 16% 25%. The research model also has good stability, which can greatly improve the scheduling effectiveness. In addition, the proposed method is able to solve a small test instance in an average of 13 seconds and a large test instance in less than 8 minutes. The results clearly show that the proposed method can serve as a good alternative to the case companys current scheduling method.

## **Line Of Balance Scheduling Algorithm For Resources Optimization In Linear Infrastructure Project: A Case Study Of An Elevated Highway Construction Project**

<sup>1\*</sup>Thanakon Uthai, <sup>2</sup>Tanit Tongthong,

<sup>1,2</sup>Department of Civil Engineering, Chulalongkorn University, Bangkok , Thailand  
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**Keywords:** Scheduling algorithm, Project scheduling, Line-of-balance, Repetitive construction project

Resources optimization has become an issue in the construction process. Unworthwhile resources utilization causes unnecessary cost during the construction phase and affects the loss of the project. To conduct an optimum schedule, it requires heavy human endeavor to acquire optimum solution and they are more laborious for large scale projects as linear infrastructure projects. This research aims to establish a scheduling algorithm for linear repetitive projects. The algorithm facilitates planners to create optimal construction schedule with the objective of minimizing the total cost of multi-specific resources under desirable duration while maintaining work continuity. Computations of the algorithm are organized in two modules, optimization model and schedule generator. First, the optimization model has invented based-on nature of a linear infrastructure project and the Line-of-balance technique (LOB). A searching algorithm is developed in order to search for the optimum solution. The optimum solution consists of a set of optimum resources, optimum total resources cost, optimum project duration. Second, schedule generator retrieves the solution as input information to compute the start date and finish date for entire activities. The start date and finish date are transferred by the user to MS Excel to display in LOB schedule. A case study of an elevated highway construction project is used to illustrate the algorithms capability handling of optimization in linear scheduling problems

## **A Study on Quality of Work Life of Cambodian Female Civil Engineers**

<sup>1\*</sup>Monika Ea, <sup>2</sup>Tanit TongThong

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**Keywords:** Cambodia, Female engineers, Quality of work life.

Quality of Work Life (QWL) is a critical concept with having lots of importance and indicates a proper balance both in work and personal life. Previous research in other disciplines identified the quality of work life in different ways and a multi-dimensional concept, these conceptual dimensions include factors related to workplace issues, work stress, job satisfaction, and career opportunity. The specific aim of this study is to explore the quality of work life through affecting factors as mentioned earlier. The contributions of this study are that it ascertained through the online survey questionnaires about the relative importance of different aspects of female engineers. The study analyzed the data collected in January 2019 in the Phnom Penh city using Multiple Regression Analysis by Stepwise. In this analysis, demographic information from participants was used as independent variables. The scores of the QWL factors from the questionnaires were used as dependent variables. Predictive mathematical equations for these elements were developed, tested, and validated. These equations allow female engineers to distinguish the level of QWL regarding demographics of Cambodian female engineers in the construction industry. The results can be used to enhance QWL, improved job satisfaction, and minimize work stress and problems, leading to better career opportunity.



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***TRACK B***

***BUSINESS, ECONOMICS, SOCIAL SCIENCES & HUMANITIES***

## **Exploring the Whether Adolescents Perception of Deviance or Non-Deviance When Using the Internet Increases or Decreases Deviant Behavior While Using the Internet**

\*Annie Daniel

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**Keywords:** Huge Heavy Motorbikes, Brand Image, Product Attributes, Lifestyle, Consumers' Purchasing Behavior

If the current trend continues, the use of computer technologies and the Internet will increase for teaching and education. It is urgent that researchers study computer and Internet deviance. Any new technology tends to create a new human environment, Marshall McLuhan declared this quote over forty years ago. Indeed, today's technology has created many new human environments and behaviors. Deviant behaviors on the computer and the Internet are rising as technology use increases (Hollinger, 1996b; Power, 2000; Vatis, 2000). This is evident in the enormous number of computer viruses, hacking; data pirating that have recently caused businesses, educational institutions and personal computer users to become skeptical about performing familiar daily tasks (e.g., opening email messages). On March 9, 2001, two high school students were arrested for talking in a chatroom on the Internet about shooting people at their high school. This caused students at the school be searched and scanned with metal detectors. After interviewing the students and searching them and their homes, investigators determined that there was no reason for concern about safety at the school. The two juveniles were ages 15 and 16 and were charged with a felony count of terrorizing, which carries a fine up to \$15,000 and imprisonment of up to 15 years, or both (Anderson & Frink, 2001). Recently, more of these types of deviance acts are emerging with teenagers. For the purpose of this study, deviant behavior for technology will include these activities: using computers and the Internet for illegal activities that violate local, state, and/or federal laws, inappropriate use; such as, a violation of the intended use of the Internet or computer, and/or its intended purpose and goal, obscene activities; defined as entering a pornography website or selling pornography goods on the Internet; using the Internet or computer to violate copyrights laws or other contracts such as institutional or third party copyright, license agreements and other contracts, intentionally disrupting the Internet traffic by spreading a computer virus, spreading rumors about another person on the Internet, intimidating, bullying and frightening another



person on the Internet. The goal of this study was to explore middle and high school students' perceptions of deviant behavior when using computers and the Internet. The target population for this study was middle and high school students. The accessible population included all students who attended a middle or high school in the East Baton Rouge Parish School, which has computers that are capable of accessing the Internet (1,150 students 575 middle school students and 575 high school students). Professor San-Yi Li of Taiwan designed the instrument used in this study. The instrument contained 66 questions and a scantron was used to record participants' responses. From the instrument, variables were selected from five sections 1) students demographic characteristics 2) computer-related activities 3) students perceptions of deviant behavior when using computers and the Internet 4) students perception of their peers deviant behavior when using computers and the Internet 5) students ability to use computers and the Internet. Results showed that the majority of students indicated they perceive their behavior as being not deviant when using computers and the Internet. Contrarily, the students indicated they perceive the behavior of their peers to be more deviant when using computers and the Internet. When the means of the Students Behavior Score and the Peers Behavior Score were compared, there was a significant different between the two scores. The Peers Behavior Score for deviance was much higher than the Students Behavior Score.

## **Good Corporate Citizens: Improving Workplace Environment by Promoting Corporate Citizenship Behavior in Hospitality Businesses**

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**Keywords:** Corporate Citizenship, Sustainability, Employee Management, Internal Marketing

Corporate Social Responsibility (CSR) has been a noteworthy topic in business research and practice (e.g. de Leaniz & Rodriguez, 2015). While majority of studies approached the CSR from the standpoint of firms efforts that mitigate negative social and environmental impacts, the concept of Corporate Citizenship (CC) recently gained popularity (e.g., Brey, 2011). Oftentimes seen as a subset of CSR, CC positions corporation as a member of society that is equivalent to a citizen accountable to the rights and responsibilities of benefiting the community in which it operates (Matten & Crane, 2005; Waddell, 2000). Whereas extant research investigated the overall positive effect of CC on business profitability and communities (Muirhead, 1999; Park & Levy, 2014), there is little understanding how CC motivates employee behavior and social environment within service businesses. To bridge this gap, this study seeks to examine how a service companys employees perceive the companys CC activities and service innovation behavior of other employees at the workplace. Furthermore, this study explores the potential of CC to motivate a customer service-oriented culture in the hospitality industry that translates into a positive social environment within the company. First, a pilot study was conducted with 98 participants to develop survey measurements for the main study. For the main study, 392 hospitality industry employees were recruited. Survey included 76 questions that measured all variables of interest and demographic information. The results showed that employees perceptions of firms CC initiatives are positively associated with their positive behavior in the workplace, which further translates into employees service innovations and a positive overall social environment within the firm. Specifically, discretionary citizenship (i.e., a firms philanthropic activities), has a stronger effect on organizational citizenship behavior. Our findings indicate the importance of nurturing CC initiatives within a service firm to create a positive working environment for its employees.

## **Service Recovery Types, Negative WOM and Repurchase Intention: Neutrality and Previous Experience as Moderators**

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**Keywords:** Service Recovery Customer Anger Neutrality Negative Word Of Mouth Repurchase Intention

The term service has always been at the center of customer interaction, especially in the occurrence of a human error and the process of compensation. After a service failure occurs, an enterprise is concerned about the emotions of its customers and their subsequent behavior, whereas the customer cares about the enterprise's compensation and response attitude. This study mainly divides service recoveries into two: economic and social recoveries. Further, it explores the impact of these recoveries on customer anger and, subsequently, on the enterprise reputation and repurchase intentions. Moreover, this study explores the interference effects of neutrality and customer's prior experience on the types of service recoveries and customer anger. This study adopted a 222 experimental design, with a total of 241 valid questionnaires for the catering industry. This study used statistical software SPSS for related data analysis, results of this study reveal the following. The types of service recoveries have a significant impact on customer anger, which implies that customer anger would be alleviated when an enterprise provides economic or social recoveries. Beside that, customer anger significantly affects reputation and repurchase intentions negatively, indicating that the stronger the customer anger, the more serious the negative reputation and the lower the repurchase intentions. Furthermore, neutrality has a significant impact on the relationship between the types of service recoveries and customer anger, whereas the customer's prior experience has no significant effect.



## **Is recovery worthy to forgive? The Effect of Service Recovery Strategies on Repurchase Intentions.**

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**Keywords:** Service Recovery, Forgiveness, Cynicism, Repurchase Intention

Everyone inevitably has experiences of service failure in their daily life. Enterprises try their best to make up for customers; however, customers mind the actions that enterprises take. This study aims to investigate the effects of service recovery strategies which are apology, compensation and recovery speed on customers forgiveness for service failure. Furthermore, cynicism is used as a moderator to explore if it has any effect on the relationship between service recovery strategies and forgiveness, and the relationship between forgiveness and repurchase intentions. This study focuses on catering as the research background adopts 2x2x2 experimental design. The questionnaires were distributed and three hundred and fifty-five valid samples were received. Afterwards, SPSS was employed for data analysis. According to the analysis results, three types of recover strategies all have positive effect on forgiveness. Besides, forgiveness also has positive influence on repurchase intentions. However, cynicism and apology dont have interaction effect on forgiveness and either do cynicism and compensation. However, cynicism has moderation effect between recovery speed and forgiveness. Cynicism doesnt have moderation effect between forgiveness and repurchase intentions. Enterprises look forward to turning the tide after happening service failure. Therefore, this study presents the meaningful practical suggestions as a reference check to enterprises. Forgiveness and repurchase intentions are crucial to enterprises; thus, enterprises have to formulate a professional process for training course, and provide suitable recovery measures. It not only can be profit for enterprises but increase consumers repurchase intentions to achieve sustainable operation.

## **TQM managerial orientation and organisational learning: some qualitative evidence from the MENA region**

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**Keywords:** Total Quality Management, Management Orientation, Organizational Learning, Service Quality, Case Study.

Aim Although existing studies on the adoption and diffusion of TQM in services have offered considerable insights into why service quality practices fail to delight customers, they have typically shown mixed and inconsistent results for the performance impact of TQM on service quality and its determinants. This in turn makes it somewhat difficult to draw definitive conclusions with regard to the relative importance of various individual and organizational forces, which influence the efficacy of service quality operations during implementation of TQM in services. In addition, these bodies of literature have resulted in a fragmentation of studies with some specific determinants of service quality (i.e. customer-contact employees) gaining significance and huge research exposure while other individual or organizational forces have relatively remained disconnected from the more parsimonious models used in service quality. The dearth of attempts to bridge TQM implementation with superior service quality and customer satisfaction is striking, allowing us to propose that an enhanced understanding of the primary determinant(s) of service quality can be achieved by systematically and empirically analyzing how managerial attitudes towards TQM determine and shape employee experiences and perceptions in relations to issues of service quality and customer satisfaction. We argue that variation in the performance impact of TQM on service quality is primarily attributed to the type of management orientation towards service quality and that the quality of management orientation has the potential to force customer-contact employees to take up peripheral role in quality improvement initiatives. Accordingly, the primary aim of the present study is to elucidate different forms of managers underlying (often unspoken) orientation towards service quality and to explore the resulting ramifications for the quality of service offerings. Methodology It adopts an inductive mode of qualitative case studies of three organization operating in service industries in the MENA region, collect data from a sample of managers representing multi-divisional management hierarchy, and derive working propositions



to explore the research phenomenon. Findings Content analysis of the data points to three types of managerial orientations towards service quality with connection to different types of organizational learning: (i) outcome orientation with a focus on short-term learning, (ii) process orientation with a focus on intermittent learning, and (iii) process-outcome orientation with a focus on continuous learning. Originality/value This study produces new evidence on the linkage between management orientations about service quality and the resulting ramifications for the quality of service offerings, employee performance, and customer outcomes. Research limitation/implications Managing for superior service quality involves adopting a managerial attitude, which is compatible with the dynamic learning orientation of the quality management paradigm and conducive to the creation of a memorable experience for customer at a point in time.

## A Step Towards Digital Inclusion under Thailand's Digital Economy and Society Development Plan

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**Keywords:** Image Stitching and Fusion, Geometric Parameters Calibration, Geodesic Distance, Ball Quality Control

The Office of the National Digital Economy and Society Commission (ONDE), Ministry of Digital Economy and Society (MDES), Thailand, is currently undergoing research studies on digital technology for the nation's society and economy development policies. A part of our strategic effort includes a study for digital inclusion policies development. This paper presents an overview of Thailand's strategic frameworks and plans including the National Strategic Framework (for 2018-2037), the Twelfth National Economic and Social Development Plan (for 2017-2021), the National Reform Plans and Procedures Act (2017), and other related national policies and frameworks regarding digital technology. Aiming to create a quality and equitable society through digital technology according to Thailand's Digital Economy and Society Development Plan, we present the findings on the need with a focus on five special groups: the elderly, persons with disabilities, disadvantaged people, women, and youth and children. Then we propose the action plans on digital technology development to bridge the gap in Thailand's digital divide. We identified the need by interviewing 5,152 subjects from the five groups. We also invited stakeholders from each group to take part in focused group discussions to provide insights into the need and propose solutions that are sustainable. The study found that the most common problems among the five groups were a lack of opportunities in continuing education and personal development, health issues, cyberbullying, and family violence and public safety. Examples of specific problems for each group were sexual harassment and unwanted pregnancy in girls and women, the missed opportunity from inadequate accesses to the right information in a timely manner, the unsanitary environment, and lack of caregivers for the elderly and persons with disabilities, and the lack of advanced skills for the elderly and women to be in the job market in the modern world. The research findings imply a digital divide in Thailand that prompts us to search for sustainable solutions to bridge the gap. The study leads us to the proposition of the digital platform that has appropriate designs for each group



of users. The platform would be equipped with the latest digital technology that can effectively provide all types of services to any user. A person who needs a specific service such as an emergency assistance or personal healthcare would be directed to the appropriate agency in a timely manner. The platform could also give an appropriate recommendation to a woman or an elderly on personal development or offer online courses for continuing education. It can also provide other personal consultation services to troubled youth or disadvantaged people. We are confident that the platform and the proposed action plan will serve the need and will eventually empower our people to be competitive human resources for Thailand 4.0 era and ensure inclusive and equal access to digital technology.

## Copyrights On The Commercialization Of Over-The-Top Media Content in Indonesia

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**Keywords:** Image Stitching and Fusion, Geometric Parameters Calibration, Geodesic Distance, Ball Quality Control

Over The Top (OTT) can be defined as a service delivered through a digital network and/or infrastructure of which the owner of the network is not directly involved in the formation nor the workability of the service's contents.

Initially, OTT was intended to increase customers by creating an online application as an extension or a new form of innovative service that was cheaper, faster and easier to access so long as the internet connection was available. To reach the customers, an OTT relied on a certain amount of data and bandwidth, which were provided by a different telecommunication service provider. As a number of customers who consume digital contents have been highly accelerated, the demand of digital data and bandwidth as well as the data traffics in the cyberspace have also been sharply increased. OTTs nowadays are extensively created and appear in various forms and functions such as video, voice, news, conference, data center, cloud service, networking service, game, mobile messaging and many others. Most of them meet the customers using data and bandwidth from a completely different network provider. It is the choice and decision of the customer, not the providers, that links the OTT service provider and the network provider in making a demanded service available to the customer. In this regard, a customer attracted by a content would download and apply the content in their personal computer or gadget irrespective from the control of the data and bandwidth's provider whose product they have been using. This practice may lead to legal problems, especially if the content consists of infringing copyright works. Although Indonesia has got a prominent copyright law protection system and counted as a country with the biggest amount of OTT users in South East Asian countries, it is assumed that Indonesia has not have any regulation specialized for the content of the OTTs. In this regard, this article tries to analyze whether there is a possible legal means of the existing Indonesian legal system to deal with the OTTs' contents, especially if the content consists of copyright infringements. The analyses of this research used juridical-normative and



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legal-comparative methods. Data of the research consisted of qualitative data which had been gathered from library and virtual sources. The results of this research showed that a number of Indonesian laws in the realm of intellectual property and information technology could be used as the bases to establish a new emerging law system dealing with OTTs.

## **Employment Dispute Settings In Industrial Relationship Based On Simple, Quick And Lightweight Cost**

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**Keywords:** Image Stitching and Fusion, Geometric Parameters Calibration, Geodesic Distance, Ball Quality Control

Settlement of industrial relations disputes in labor law after the birth of Law No. 2 of 2004 concerning Settlement of Industrial Relations Disputes is known as the model of voluntary settlement through bipartite, conciliation, mediation and arbitration; and mandatory settlement models, namely through the Industrial Relations Court. In addition, there is a limitation that only settlement of rights disputes and termination of disputes can be submitted to the Supreme Court without going through an appeal procedure. The problems that occur in industrial relations dispute resolution are differences of opinion which result in conflicts between employers or joint entrepreneurs with workers / laborers or trade unions due to disputes regarding rights, interest disputes, termination of employment disputes and disputes between trade unions / labor unions in one company, besides that also concerning the competence of the Industrial Relations Court so that it cannot effectively resolve labor disputes. This study uses a normative juridical research approach. Since this research is a normative legal research, the approach used is a normative juridical approach accompanied by a historical legal approach and an empirical approach. The results showed that the Industrial Relations Dispute Settlement Mechanism was resolved through the Industrial Relations Court based on Law No. 2/2004 The scope of resolving industrial relations disputes through the judiciary includes four types of disputes, namely rights disputes, interest disputes, layoff disputes, and disputes between trade unions in one company. The aim of this research is to analyze the mechanism of labor dispute resolution in industrial relations courts based on a simple, fast and low cost principle in terms of law no.2 of 2004 concerning industrial relations dispute resolution because the relevance of resolving industrial relations disputes still requires revisions and are considered not able to accommodate and do not reflect the principle of simple, fast and low cost.



## **Enhancing Skills For The Future Employment Scene 2020 From The Theory Of Connectivity: Shared And Adaptive Personal Learning Enviorenments In Spanish Context.**

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**Keywords:** Employability, Skills future; Connectivity; PLE; Smart city

Cities are constantly changing to create a new model, Smart Cities, as an essential point to make cities a functional, modern and habitable place (UCLG, 2012). They are a ideal place for innovation, set up companies and improve new ideas. Thus also for learning, leading the economic growth and social development. They are where main stakeholders are interrelated, as an intelligent network sytem, made by actors in a specific cultural context (Das, 2013). The constant and everytime more evident presence of interconnected mobile devices, The Internet of Things/IoT, the accelerated convergence between technology and information, the Big Data and learning analytics are part of a new ecology to consider at the moment to define priorities and design educational interventions. The education limits clearly demarcated on formal, non-formal and informal contexts are now blurred (Adell & Castaeda, 2010) due to all these changes. That means, we need to think about these issues and provide properly answers from Educational and Connectivity Theories (Siemens, 2014), to reach the named Skill for a future employment in 2020 (Davies, Fidler & Gorbis, 2011). The pedagogical principles of new Personal Learning Environments/P.L.E. or Personal Learning Networks/P.L.N. are currently regarding this skills and their confluence. And they are not only understood as a tool set and digital artifacts, but all these environment that include the importance of mature technologies and non-digital resources (Santamara, 2010). Cities are permanently changing to generate a new model of city. And Smart Cities are positioned as one of these models to make more functional, modern and habitable all those cities (UCLG, 2015). They are a perfect place for innovation, setting up companies or improve ideas, and thus also for learning, leading the economic growth and social development. They are a place where the main stakeholders are interrelated, as an intelligent network system, for developing it in a specific cultural context (Das, 2013). Multiple interactions, modular changes, significant learning and evaluation by data analyse are key words of this project. We try to assess the level of acquisition of these new skills for the future and how this achievement can be improved from a modulated configu-



ration of PLE/PLN (Scott, 2012) of teenagers and university students. This analyse generate knowledge on the proposition to promote and systematize PLE and learning strategies, as long as their long life, according to their needs and demands, for their inclusion on the workforce in present and future new Smartcities. The study are supporting by research national project EDU2017-88641-R. The methodology is mixed, because of complexity of topic and proposed hypothesis. Being a good combination of more traditional and quantitative methods and deep qualitative analyse of contexts and situations. The population of the research is High School (included unaccompanied foreign minors, UFM) in Spain. The instruments and procedures for data collection is a wide range such as: Estimation Descriptive Scales, Questionnaires, Interviews and analysis of diagrams of PLE/PLN. And the main expected impact is the generation of reflection and knowledge to enable outcomes and products/Apps to improve more effective learning of students facing a new workforce.

## Targeting Poor Student With Proxy Means Test

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**Keywords:** Proxy Means Test (PMT), Poverty Scorecard, Poverty Targeting, Household Characteristics, Geographical Characteristics.

Proxy Means Test (PMT) is one of the most efficient way to target the poor. Procedure of PMT is using household characteristic variables, which have relation with income, as a proxy for poverty. That is, PMT is a measurement of wealth, that is so to say poverty without using income, consumption or expenditure. In this study, we created the PMT poverty scorecard to be used as a tool for targeting poor student in 10 provinces of Thailand, including Chanthaburi, Chiang Rai, Kanchanaburi, Mae Hong Son, Nakhon Phanom, Nakhon Ratchasima, Nan, Phuket, Trang and Udon Thani. We estimated the relationship between these household characteristic variables and students average household income per month by using Ordinary Least Square (OLS) regression separately by province to capture any geographical characteristic in each province. We then, turned 11 of household characteristic estimated coefficients into PMT poverty scorecard for each province. The result suggests that, in overall, PMT poverty targeting works well in 10 provinces of Thailand in terms of low undercoverage rate, high targeting accuracy rate in both poverty and total accuracy, except for Phuket which has a huge leakage rate since its geographical characteristics is quite difference comparing to others. We suggest the increment of household characteristic variables and the use of difference set of household characteristic variables for each province in PMT could potentially increase the efficiency of PMT poverty targeting.

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