

PROCEEDINGS

ISITE-2018

**Global Conference on Innovative Strategies
in Information Technology and
Engineering Management**

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

Date: April 21-22, 2018



CONFERENCE BOOK OF ABSTRACT PROCEEDINGS

Consortium-ET

Consortium of Engineering & Technology



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Book of Abstracts Proceedings

Global Conference on Innovative Strategies in Information Technology and Engineering Management (ISITE)

Tokyo, Japan
April 21-22, 2018
ISBN: 978-602-6427-04-6

Email: info@consortium-et.com

URL: www.consortium-et.com



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Proceedings of the Global Conference on Innovative Strategies in Information Technology and Engineering Management (ISITE)

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***Global Conference on Innovative Strategies in
Information Technology and Engineering Management
(ISITE)***

Venue: Hotel Mystays Ochanomizu Conference Center Tokyo, Japan

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



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CONFERENCE TRACKS

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

CONFERENCE CHAIR MESSAGE

Michael Sasaoka

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

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

Thank you.

Michael Sasaoka

Conference Chair

Email: contact@consortium-et.com

CONFERENCE SECHDULE

Consortium-et-2018

Venue: Hotel Mystays Ochanomizu Conference Center Tokyo, Japan

Time: Registration & Kit Distribution (09:00 am - 09:10 am)

Day: Saturday

Date: April 21, 2018

Venue: Room 1

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)

DAY 01 (April 21, 2018)

First Presentation Session (10:00 am - 11:15 am)

Venue: Room 1

**Track A: Applied Sciences, Information Technology and Engineering
Management**

Presenter Name	Manuscript Title	Paper ID
Yin-Yann Chen	Modeling and Solving Multi-Manned Assembly Line Balancing Problems With Resource Constraints	ISITE-APRIL-101
Prof Wei Chien	Ant Colony Optimization Solutions for Path Planning of Logistic Vehicle	ISITE-APRIL-103
Hao-Chun Lu	Using Support Vector Machine to Analyze the Physiological Characteristics of Patients with Bipolar Disorder	ISITE-APRIL-105
Flt.Lt. Sarun Savetsi	Military Aviation Risk Assessment Web Application	ISITE-APRIL-108
HSU, WAN-TING	Analysis of User Behavior of Video Social Media	ISITE-APRIL-109

DAY 01 (April 21, 2018)

Second Presentation Session (11:15 am - 12:00 pm)

Venue: Room 1

Track B: Business, Economics, Social Sciences and Humanities

Presenter Name	Manuscript Title	Paper ID
Dovile Jankauskaite	Modelling Cultural Diversity Management to Enable Innovativeness in Organization	BD-APRIL-105
Homayoon Shalchian	Executives Steady Compensation and Firms Economic Success: The Impact of Government Subsidization of Chinese Corporations	BD-APRIL-110
Yu-Li Wang	The Performance Management of Evaluating the Journalists in the Market-Oriented Newspapers from Mainland China	BD-APRIL-111

Lunch & Closing Ceremony

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: ISITE-APRIL-106A

Gp.Capt. Pranee Mooklai, WRTAF
403 Squadron, Royal Thai Air Force, Thailand

Official ID: ISITE-APRIL-107A

Gp.Capt.Jarassri Jindarattanawong, WRTAF
403 Squadron, Royal Thai Air Force, Thailand

Conference Day 02 (April 22, 2018)

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



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TRACK A

***APPLIED SCIENCES, INFORMATION TECHNOLOGY AND
ENGINEERING MANAGEMENT***



Modeling And Solving Multi-Manned Assembly Line Balancing Problems With Resource Constraints

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Keywords: Line balancing, Multi-Manned Workstation, Resource Constraint

In this paper, we propose a mixed integer programming model for the resource constrained assembly line balancing problem (RCALBP) with multi-manned workstations. Resources refer to machines or tools (such as jigs and hand tools) in the production line. The objective is to minimize the number of workstations, the number of operators, and the number of resources, in order to obtain the optimal allocation of tasks, operators, machines, and resources. To prove the necessity of adding resource constraints in the ALBP, we used case-related information and solved the multi-manned ALBP with and without resource constraints. Results showed a large difference between the two configurations. Although ignoring resource constraints when allocating tasks could reduce the complexity of the problem, the resulting configuration led to a high cost of setting resources. The findings of this study can be used as reference for the decision in planning the allocation of tasks, workstations, and operators in the industry.

Ant Colony Optimization solutions for Path Planning of Logistic Vehicle

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Keywords: Ant Colony Optimization, Optimal Path Planning, Logistic Vehicle, Obstacle Avoidance

In recent years, online shopping has greatly promoted the development of the logistics industry, logistics path planning has become a hot research topic among many researchers. Although path planning has been discussed by several previous studies, some real logistics conditions are not considered like obstacle and road slope. This paper presents a novel proposal to solve the problem of path planning for logistic vehicle based on Ant Colony Optimization(ACO) algorithm in the environment which exists obstacle. There are two kinds of environment in the path planner application, one is a single obstacle placed between the starting point and the terminal point in a known map which is recognized, then uses the ACO to find an optimal path with the capability to avoid impact with the obstacle for a logistics vehicle. The other works in the model with multi-obstacle and the same map as before to explore whether the best path solution can be found successfully by the ACO algorithm. Through experimental evaluations, the AOC can be verified to solve the path planning problem closing to the real environment.

Using Support Vector Machine to Analyze the Physiological Characteristics of Patients with Bipolar Disorder

*¹Hao-Chun Lu, ²Fang-Yu Lin

³Han-Chao Li

^{1,2,3}Department of Information Management, Fu Jen Catholic University, Taiwan.

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Keywords: Bipolar Disorder, Support Vector Machine, Mental Illness

In this study, we use Support Vector Machine to analyze the bipolar disorder patients for finding out the specific physiological characteristics of patients where the data are collecting from National Health Insurance in Taiwan from 1995. Because there is still lack a comprehensive analysis for the cluttered patient data and result in the inability of bring the value of the data itself into play. Therefore, in this paper, this study analyzes the bipolar disorder patient data and finds out the specific physiological characteristics of patients. Those characteristics should help the physicians to effectively treat the patients for these specific physiological traits.

Military Aviation Risk Assessment Web Application

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³Fly.Off.Chakraphan Wimontrairat

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Keywords: Web Application, Risk Assessment, Aviation

This paper describes the conversion of a traditional military aviation risk assessment paper form used in the 403 Squadron (SQN), Royal Thai Air Force (RTAF) into a web application which can be accessed anywhere, anytime on any platform. The three primary objectives for the conversion are to reduce time in the assessment process, to reduce human error while evaluating the result, and to gather data for the future analytical use. Since the deployment is a normal routine for the squadron, robust, continuous and easy to use are the main reasons driving this project. The aid of computer software is proved to be more effective, more accurate and less time consuming than the previous usage of man power based on feedbacks from the 403 SQN pilots in a single year time span after implementing this project into the SQN standard operating procedure (SOP). The procedure requires all pilots to complete the risk assessment process via this application before each sortie. The result of this project mainly helps promote an aviation safety regulated by the RTAF aviation safety center. Beside this benefit, data collected from this application indicates an interesting relationship between airfield surrounding factors, the time of year, and pilot workloads in each month in term of a frequency of the probable mishap leading trend. Such relationship will be analyzed in the next phase of this project. The detail of the next phase is briefly described toward the end of this paper.

Analysis of User Behavior of Video Social Media

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Keywords: Video Social Media, User Satisfaction, Behavioral Intention to Use, Social Big Data Analysis

Video social media have become increased sharply on the Internet since various sharing platforms and video technologies advancement consistently (i.e., Google YouTube). Furthermore, YouTuber is a kind of new jobs that is getting popular to especially attract more and more young generation (i.e., Millennials). To understand the influenced factors of videos watching performance is significant to further understand the video performances and help to the conductions of video sharers themselves and video social media platforms. Wixom and Todd (2005) proposed a theory of enhanced TAM that can be used to verify the users satisfaction and performance on video social media. This study is to collect and analyze the social big data of videos from one of world-wide biggest video sharing platforms. This study is to investigate the verifications user satisfaction according to Wixom & Todd (2005), and attempts to augment the influence factors of social community to propose a more complete research model to explore these influenced factors and behavior of user satisfaction that can inspect the effects of online video platform with a new recommendation technology. Based upon community quality and content quality as user satisfaction, this study uses Python's third-party library BeautifulSoup4 as a crawler program to obtain real data on YouTube's community quality and content quality. The expected result of the study is that there is a positive effect of user satisfaction on community quality and content quality in the video social media with the enhanced recommendation technology, and it is important to explore the significant characteristics of watching performance to further understand the relationships among the certain audiences, YouTubers, and video social media.



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TRACK B

***BUSINESS, ECONOMICS, SOCIAL SCIENCES AND
HUMANITIES***



Modelling Cultural Diversity Management to Enable Innovativeness in Organization

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Keywords: Cultural Diversity, Organizational Innovativeness

Many researchers agree, that cultural diversity has positive influence on an organization encouraging creativity, adaptivity, problem solving, knowledge transfer, creating conditions for innovative ideas and perspectives, however it also increases probability of conflicts, loss of trust as well as other challenges. Therefore, Ikegami et al (2017) equates cultural diversity to Schrödingers cat a dual state of existence, at the same time it is an asset to an organization and a challenge. Cultural diversity is currently receiving increasing research intensity. There have been various studies conducted analysing opportunities created by cultural diversity on various levels: group, organization, country, or a combination of the latter three. Also, widely analysed are cultural diversity influences on organization and relation between cultural diversity and innovation. The aim is to investigate how to enable innovativeness in an organisation while managing cultural diversity. Firstly, cultural diversity management and relation to organizational innovation are discussed; secondly, the cultural diversity management models are analysed.

Executives steady compensation and firms economic success: The impact of government subsidization of Chinese corporations.

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Keywords: Subsidization, Discretionary, Compensation

Government subsidization has become a common source of financing for companies in China during the past two decades (Bu and Yu, 2012). Further, substantial increases in executives compensations have led to rather disproportional pay-gaps between the executives and the employees, and the issue seems to be particularly severe in Chinese state-owned enterprises (Chen and Li, 2001; Chen et al., 2003). In this paper, we pursue a double objective. First, we examine the effect of government subsidization of Chinese corporations on the executives compensation, employees wages and the pay-gap between the executives and employees. Our first purpose is thus to verify whether Chinese executives use their discretionary power and the government subsidies to increase their own compensation. Second, we examine the effect of the pay-gap caused by subsidization on the firms economic success. Our findings suggest that the compensation of the executives in subsidized firms has shown a significantly higher growth relative to that of the employees. Our results also suggest that the impact of a government subsidy on the pay-gap was relatively larger and more significant among Chinese state-owned enterprises relative to private corporations. Finally, our results show that the pay-gap associated with government subsidy has a negative impact on firms economic performance and the impact seems to be more significant among state-owned enterprises relative to private firms.

UP COMING EVENTS

You can find the details regarding our upcoming events by following below:

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