

# DRICT-2018



**Development Research Symposium,  
on Information & Communication Technologies**

**The Howard Plaza Hotel Taipei, Taiwan  
April 05-06, 2018**



**ESRDB**

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

***ESRDB***

Engineering Science Research & Development Board



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# **Book of Abstracts Proceedings**

**Development Research Symposium on Information & Communication Technologies (DRICT-2018)**

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Proceedings of the Development Research Symposium on Information & Communication Technologies (DRICT-2018)

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***Development Research Symposium on Information &  
Communication Technologies (DRICT-2018)***

**Venue: The Howard Plaza Hotel Taipei, Taiwan**

**Conference Theme:** : To provide an international forum where researchers, practitioners, and professionals interested in the advances in, and applications of Information technology and engineering can exchange the latest research, results, and ideas in these areas through presentation and discussion.



## SCIENTIFIC COMMITTEE

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Universiti Tunku Abdul, Malaysia

## ORGANIZING COMMITTEE

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Conference Supervisor

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**Philip L-F. Liu**

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## CONFERENCE TRACKS

- Basic Science
- ICT
- Electrical Engineering
- Mechanical & Industrial Engineering
- Civil Engineering
- Business and Management Studies
- Electric Drives and Control
- Electrical Machines
- Instrumentation Engineering
- Power Generation, Transmission and Distribution
- Power System Engineering

## CONFERENCE CHAIR MESSAGE

**Ms. Mei Shu Lai**

“International Conference of Engineering Science Research and Development Board” 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.

Ms. Mei Shu Lai

Conference Chair

Email: [contact@esrdb.com](mailto:contact@esrdb.com)



## CONFERENCE AGENDA

**Conference Name: Development Research Symposium on Information & Communication Technologies (DRICT-2018)**

**Day & Date: Thursday, April 05, 2018**

**Venue: The Howard Plaza Hotel Taipei**

### Timeline of Day 01

01:00 - 01:10 pm	Registration of Participants
01:10 - 01:20 pm	Introduction of Participants
01:20 - 01:30 pm	Inauguration and Opening address
01:30 - 01:40 pm	Grand Networking Session

**Tea/ Coffee Break: 01:40 - 02:00 pm**

**DAY 01 Thursday (April 05, 2018)**

**Presentation Session (02:00 pm - 03:00 pm)**

**Venue: Room 1**

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

<b>Paper ID</b>	<b>Manuscript Title</b>	<b>Presenter Name</b>
DRICT-APR-TW101	A Usability Study for Human Failure Modes and Effects Analysis of the E-GATE System at Taoyuan International Airport	Tsung-Ying Yu
RDBES-APR-TW101	The Consistency of Market Dynamism and Firm Resources: The Influencer of Thais Business Competitive Advantage	Mr. Khorntawatt Sakhonkaruhatej
RDBES-APR-TW103	Value Analysis as an Impact Assessment Tool for Sustainable Projects Utilizing Sustainability Assessments System (SAS) Categories & Standards A Presentation Directed for Professionals in the Green Industries	Prof. Doc. Jamal A Alduaij

**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:** TPM-148-101A  
David C. Ho  
Indiana University School of Medicine USA



## **Conference Day 02 (April 06, 2018)**

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



***TRACK A***  
***ENGINEERING, TECHNOLOGY AND APPLIED SCIENCES***



## A Usability study for Human Failure modes and Effects Analysis of the E-GATE system at Taoyuan International Airport

<sup>1\*</sup>Tsung-Ying Yu, <sup>2</sup>PoTsangB Huang

<sup>3</sup>Yuan-ju Chou

<sup>1,2,3</sup>Department of Industrial and Systems Engineering, Chung Yuan Christian University, Taiwan

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**Keywords:** E-GATE System, HFMEA, Registration Quality

In response to the increasing crowd flow management, the international airports around the world have been developing numerous innovative boarder management methods, and Taiwans government also emulate the E-GATE system which USA has utilized as the improvement to enhance the boarder safety management, with technological management to enhance the crowd flow management. Taiwans government has installed E-GATE system s at all major airports and ports to reduce the possible risk of mistakes for airport crowd flow management. However, the failure mode of E-GATE system will be bottlenecking point in the passenger clearance process at the airport, causing visitors to waste time on waiting line for the customs clearance time. This research used MDM, AHP and HFMEA to explore the relevant situations in the passenger operation of the E-GATE system for analysis. The results show that passengers using the E-GATE system accounted for 28.56% of total passengers for immigration and emigration. In the non-ideal factor analysis, 41.20% of visitors were not able to use successfully displaying in the non- Operating behaviors and non-practical application facets, so the potential human failure mode is the highest for immigration officials performing Passenger registration. In the first three failure modes of the evaluation system, facial photography occupies the highest weight of 18.00%, followed by fingerprint extraction 15.40% and facial occlusions 14.60%. Hence, the quality of the E-GATE system is critically dependent on the quality of the passenger registration process. Recommends that the Government require high registration quality to allow high performance and effective.

## **The Consistency of Market Dynamism, and Firm Resources: The Influencer of Thais Business Competitive Advantage**

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**Keywords:** Market Dynamism, Firm Resources, Dynamic Capabilities Business Competitive Advantage

The study of business sector phenomenon had shown that the present business competition is experiencing unstable competitive environment. This is the primary reason why the business sector cannot use the previous concepts and theories to plan and formulate a competitive strategy. Therefore, this article to presents the concepts that tried to explain the current unstable competitive environment. This article is based on a literature review on fundamental theory, a Resource Based Views Theory that is the basis of firm resources concept, the concept of market dynamism and its consistency, the concept of business competitive advantage. According to the review, it has been found that business competitive advantage must rely on the consistency of market dynamism and firm resources as a driven variable influence to business competitive advantage. This is the consequence of applying the concepts and management concept to describe the today's business.

**Value Analysis as an Impact Assessment Tool for Sustainable  
Projects Utilizing Sustainability Assessments System (SAS)  
Categories & Standards A Presentation Directed for Professionals  
in the Green Industries**

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**Keywords:** Analysis, Assessment, Sustainability

This paper is targeting professionals whom are concerned with the development of projects and looking forward to enhancing its planning, designing, launching, or even operating & maintaining phases. It presents Value Analysis as an impact assessment tool to deal with these activities for the said enhancement under the SAS categories as the main sustainability indicators in the green industry. The program presents the Value Analysis background and concept, systematically integrated with the said SAS categories and schemes.

## *UP COMING EVENTS*

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

<http://esrdb.com/irestm/>

<http://http://esrdb.com/citas/>

<http://http://esrdb.com/aecit/>

<http://http://esrdb.com/icta/>

<http://http://esrdb.com/iaets-2018/>

<http://http://esrdb.com/ctsest-2018/>

<http://http://esrdb.com/ictkea-2018/>

<http://http://esrdb.com/conferences/dRICT-2018/>

<http://anissh.com/conferences/turkey-conferences/>

<http://http://esrdb.com/conferences/csndm-2018/>

<http://http://esrdb.com/conferences/etase-2018/>

<http://http://esrdb.com/conferences/cetas-2018/>

## Vision

Invests in creation of 21st century engineers and discovery of technologies through transformational center-based research, research in education and inclusion, and research opportunities for students and teachers.

## Mission

To increase the diversity of the scientific and engineering workforce by including all members of society, regardless of race, ethnicity, or gender, in all aspects of the centers' activities. Because ESRDBs play critical roles in academe by integrating research, education, diversity, outreach, and industrial collaboration.



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