



ABSTRACT PROCEEDING BOOK

**OSAKA, JAPAN
January 19-20, 2020**

Volume 01, Issue 01

contact@afaresearch.com

www.afaresearch.com

**CONFERENCE
PROCEEDINGS**

**BOOK OF ABSTRACTS
BESSH-2020**

Osaka January 2020

International Conference on

**“BUSINESS, ECONOMICS, SOCIAL
SCIENCE & HUMANITIES”**

Book of Abstracts Proceeding

INTERNATIONAL CONFERENCE ON

**“BUSINESS, ECONOMICS, SOCIAL SCIENCE &
HUMANITIES”**

Osaka, Japan

Office Address:

13, Jalan M2/7, M-Residence 2, 48020,
Rawang, Selangor Malaysia

Email: contact@afaresearch.com



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Proceedings of the International Conference on
**“BUSINESS, ECONOMICS, SOCIAL SCIENCE &
HUMANITIES”**
Osaka, Japan

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**International Conference on
“Business, Economics, Social Sciences & Humanities”
OSAKA, JAPAN**

**Venue: Hotel MyStays Shin-Osaka Conference
Center**

ORGANIZING COMMITTEE

**1. Ms. Amanda
Conference Coordinator
amanda@afaresearch.com**

**2. Mr. John
Conference Coordinator
john@afaresearch.com**

**3. Mr. Anthony
Conference Coordinator
anthony@afaresearch.com**

**4. Ms. Adrina
Conference Coordinator
adrina@afaresearch.com**

**5. Mr. Ivan
Conference Coordinator
ivan@afaresearch.com**



CONFERENCE CHAIR MESSAGE

Dr. Sharon

International Conference on “Business, Economics, Social Sciences & Humanities” serves as platform that aims to help the scholarly community across nations to explore the critical role of multidisciplinary innovations for sustainability and growth of human societies. This conference provides opportunity to the academicians, practitioners, scientists, and scholars from across various disciplines to discuss avenues for interdisciplinary innovations and identify effective ways to address the challenges faced by our societies globally. The research ideas and studies that we received for this conference are very promising, unique, and impactful. I believe these studies have the potential to address key challenges in various sub-domains of social sciences and applied sciences.

I am really thankful to our honorable scientific and review committee for spending much of their time in reviewing the papers for this event. I am also thankful to all the participants for being here with us to create an environment of knowledge sharing and learning. We the scholars of this world belong to the elite educated class of this society and we owe a lot to return back to this society. Let’s break all the discriminating barriers and get free from all minor affiliations. Let’s contribute even a little or single step for betterment of society and welfare of humanity to bring prosperity, peace and harmony in this world. Stay blessed.

Thank you.

Dr. Sharon

Conference Chair

Email: chair@afaresearch.com

BESSH-2020



CONFERENCE SCHEDULE

*CONFERENCE DAY: SUNDAY
CONFERENCE DATE: JANUARY 19, 2020*

*VENUE: HOTEL MYSTAYS SHIN-OSAKA
CONFERENCE CENTER*

09:30 am – 09:40 am	Welcome Reception & Registration
09:40 am – 09:45 am	Opening Ceremony
09:45 am – 09:50 am	Welcome Remarks – Conference Coordinator AFA Research
09:50 am – 09:55 am	Introduction of Participants
09:55 am – 10:00 am	Group Photo Session
10:00am – 10:30 am	Grand Networking Session and Tea Break

*CONFERENCE DAY 01: SUNDAY
CONFERENCE DATE: JANUARY 11, 2020*

*VENUE: HOTEL MYSTAYS SHIN-OSAKA CONFERENCE
CENTER*

SESSION I: 10:30 AM-01:00 PM

**TRACK A: BUSINESS, SOCIAL SCIENCES AND
HUMANITIES**

EMCG-JAN-102	The Impact of Nationality Salary Differentials and Cultural Distance on Salary	Wenjhan Jane
EMCG-JAN-103	Income Tax Reform: Taxing the Income from Real Estate Transactions by Consolidating Housing and Land	Ming-Hung Yao
EMCG-JAN-109	The Study on the Application of the Luminescent Lace onto the Apparel Designed for Nocturnal Admonition Purpose	I Chun, Chen
IRBEMSH-0120-ANI101	Analyzing the Philosophy of Storytelling Narrative both in Ancient Theater and Modern Cinema: Case Studies of Oedipus The King and Twelve Monkeys	Peng Qingyue
IRBEMSH-0120-ANI103	Retirement preparation in the workplace in Taiwan: HR professionals' perspectives	Ya-Hui Lee
OSA-JAN3120-004B	Pricing Vulnerable Asian Options with Correlated Credit Risk under Jump-Diffusion Process	Yuhong Liu
OSA-JAN3120-009B	The Influence of Metacognitive Experience and Self-other on Context Effect	Chia-Jung Chang

*CONFERENCE DAY 01: SUNDAY
CONFERENCE DATE: JANUARY 11, 2020*

*VENUE: HOTEL MYSTAYS SHIN-OSAKA CONFERENCE
CENTER*

SESSION I: 10:30 AM-01:00 PM

**TRACK B: ENGINEERING, TECHNOLOGY
COMPUTER AND APPLIED SCIENCES**

ECEEE-JAN20-101	Zero-Day Intrusion Detection System Based on Collaborative Neural Networks with Aggregation Strategy	Chih-Lung Chen
ECEEE-JAN20-102	Decode Hand-Movement from Cortical Ensemble Activity in Motor Cortex	Shih-Hung Yang
OSA-3120-102E	A Study on Solving Wave Propagating over Axi-Symmetric Topography by an Analytical Solution	Jen Yi Chang

**LUNCH BREAK (01:00 PM – 02:00 PM)
CLOSING CEREMONY**

2ND DAY: MONDAY
DATE: 20-JANUARY, 2020

City Tour and Shopping Day

All respective guests are free to conduct their own sightseeing and tour.
The second day of the event is reserved for this memorable purpose.

**TRACK A: BUSINESS, ECONOMICS,
SOCIAL SCIENCES & HUMANITIES**

Pricing Vulnerable Asian Options with Correlated Credit Risk under Jump-Diffusion Process

Yuhong Liu^{1*}, I-Ming Jiang²

Abstract This study extends the framework of the credit risk model in Klein (1996) and the jump-diffusion process in Merton (1976) to price the vulnerable Asian options with jump risk. Since most Asian options are traded in over-the-counter markets, the standard options valuation models may misprice options without taking counterparty default risk and the impact of rare events on counterparty assets into account. Therefore, we derive a pricing formula for vulnerable Asian options that takes not only the potential risk of default but also the potential for rare event shocks to counterparty assets into account. Furthermore, we do the numerical analysis to investigate the influence of the credit risk and jump risk on the option price. We conclude that when the credit risk and the impact of rare events on counterparty assets are encountered, there exists mispricing when using other pricing formulas to evaluate vulnerable Asian options.

Keywords: Geometric Average Asian Option, Vulnerable Option, Counterparty Risk, Jump-diffusion Process

¹National Cheng Kung University, Taiwan

²Yuan Ze University, Taoyuan City, Taiwan

*E-mail: yuhong@mail.ncku.edu.tw

The Influence of Metacognitive Experience and Self-other on Context Effect

Chia-Jung Chang^{1*}, Shin Lan², Chieh-Ju Chang³

Abstract People face countless choices in different categories every day. According to the traditional view of economics, people should have always approached the decision which they expected to have maximum benefits. However, in reality, plentiful options generate consumer perceived risk and lead to heuristic decision methods such as compromise effect and attraction effect (together known as context effect). This research mainly determines that the context effect is more significant for people while making consumption decisions for others (e.g., buying gifts) than for themselves. Furthermore, as the empirical evidence indicates, the metacognitive experience (processing fluency and retrieval fluency) moderates the relationship between self-other consumption and the context effect. Four hypotheses are proposed and confirmed by four experiments.

Keywords: Self-other, Compromise Effect, Attraction Effect, Context Effect, Metacognitive experience

¹ National Taiwan Normal University

E-mail: cjchang1979@gmail.com, bluehrt521@gmail.com

The Impact of Nationality Salary Differentials and Cultural Distance on Salary

Wenjhan Jane*

Abstract This article focuses on the issues of nationality and cross-cultural differences in relation to compensation levels in the Nippon Professional Baseball (NPB) league. Panel data for 1,520 players during the period from 2009 to 2017 is collected, and the two-stage double fixed-effects model is employed to investigate the impact of nationality discrimination and cultural distance on salary. The main finding indicates that, on average, foreign players are paid 54-67% more than domestic players *ceteris paribus*. Moreover, foreign players with higher cultural (1.9%) and special (0.68%) distance fare better relative to those where such distance is lower. Evidence of nationality-based salary discrimination and the effects of cultural distance on salary are found. We also find strong support for the senior-junior system that pervades the culture in the Japanese labor market and the different body mass index (BMI) requirements for pitchers and hitters in NPB.

Keywords: Culture, Hofstede, Nippon Professional Baseball, Reservation salary, Salary discrimination

* Shih Hsin University, Taiwan

Income Tax Reform: Taxing the Income from Real Estate Transactions by Consolidating Housing and Land

Ming-Hung Yao*

Abstract Taiwan's land tax is classified into land value tax (LVT), agricultural land tax, and land value increment tax (LVIT). The LVIT, which is essentially an income tax on gains from land transactions, plays an important role in financing local government services. The tax base of LVIT is determined by the government-assessed present value of land (GAPV), instead of the actual transaction value. No tax burden occurs on transactions during the period between consecutive annual adjustments of GAPV. There is thus a considerable gap between this system and fair, equitable taxation. The defect LVIT system is thought as a factor to surging real estate prices in Taiwan over recent decades. The public appealed to the government for tax reform of income from real estate transactions. The Income Tax Act was amended in 2015 to tax actual gains from real estate transactions combining house and land on a consolidated basis, and has taken effect since 2016. The LVIT tax system remains unchanged by the implementation of the income tax reform. The tax base of the real estate transaction income tax is the actual value of the properties reduced by related costs, expenses, and the increase in GAPV for LVIT purposes to avoid double taxation. This chapter aims at providing a background for different aspects related to tax levied on income from real estate transactions. In addition to introduction focusing on LVIT and the income tax reform in 2016, problems and issues of LVIT and the tax reform are addressed. Taiwan's land and tax policies in the 1950s represented a successful experience for developing countries, but also resulted in high real estate prices and wealth distribution inequality over recent decades. The 2016 income tax reform had been implemented for just two years, whether a success or failure case is still worth investigating. However, it is definitely a precious experience to developing countries, both academically and empirically.

Keywords: Property Tax, Land Value Increment Tax, Real Estate Transaction Income Tax

* National Kaohsiung University of Science and Technology

The Study on the Application of the Luminescent Lace onto the Apparel Designed for Nocturnal Admonition Purpose

I Chun, Chen^{1*}, Ching Chu, Hung²

Abstract In recent times, the craze for the functional apparel has been brought forward by the outdoor liveliness, no longer will the flexible and breezy outfit without aesthetic appease customers, especially to the growing number of female elderlies, who long for the exquisite and elegant material in addition to the function in order to exhibit individuals taste. In other respects, the meager visibility outdoors is so important that the nocturnal admonition must be affixed to the functional apparel. Nowadays, there are only wearable fluorescent bracelet and vest available in the market for the use of alerting others at night, nocturnal admonition feature cannot be weaved along with the textiles, so not only has this caused inconvenience, but also has it not been able to cope with the trend of sustainable development and smart wear. In compliance with the demand of the customers, the manufacturers focus more on the versatile textiles, and due to that reason, the study will continue with the patent of the luminescent lace, “Embroidered lace fabric”, applied by the researcher, with the technique of combining the luminescent yarn with yarn throwing to integrate the eco-friendly ideology with the customers demand so as to produce a functional apparel with aesthetic, function and admonition.

Keywords: Luminescent Lace, Female Elderlies, The Demand for the Design of Functional Fabric, The Demand for Nocturnal Admonition

^{1,2} Kun Shan University

Analyzing the Philosophy of Storytelling Narrative both in Ancient Theater and Modern Cinema: Case Studies of Oedipus The King and Twelve Monkeys

Peng Qingyue^{1*}, Chang Woojin²

Abstract As the seventh art, film, born in 1895, is the most elaborate work in the media world today, not only because of its fascinating audiovisual expression, but also because of the stories and philosophy in it. Wonderful audiovisual expressions in films should be the result of technological advancement, which also means that the art form of film has only a history of over 120 years. However, storytelling narrative, as the core element in film, has a thousand-of-years history. Through analyzing the philosophy of storytelling narrative, the ancient play, Oedipus The King, is associated for the first time with the film, Twelve Monkeys (1995) in this thesis. Based on case studies of them through analyzing the motifs of the past events and the skills of storytelling, it is not difficult to find the similarities in philosophy both in the ancient play and the modern film, that is the fate of protagonist is impossible to change.

Keywords: Oedipus The King, Philosophy, Storytelling Narrative, Twelve Monkeys

^{1,2} Ajou university in South Korea

Retirement Preparation in the Workplace in Taiwan: HR Professionals' Perspectives

Ya-Hui Lee^{1*}, Chien-Hung Hsieh²

Abstract People live longer, it means that people have more years after retirement, thus the retirement preparation is attracting the attention. Recently, retirement education is emphasized in the workplace, and relevant research indicates that retirement preparation has a positive relation with wellbeing in the post-retirement. To understand the feasibility of retirement education realized in the workplace, the researchers adopted a qualitative method and conducted semi-structured interviews to collect qualitative data. Seven HR professionals from the enterprises were selected, and the participants who mainly take in charge of retirement preparation programs in the enterprises. The findings were as follows. 1. Based on the HR professionals' perspective, the sooner the better if people engage in retirement planning. In the real situation of the workplace, the enterprises do not provide retirement education for all, but only for the employees who are ready to retire. 2. To hold retirement educational programs in the enterprises, the attitudes and perceptions of the managers play an important role. Once the managers perceive the benefits of retirement education, the program can be realized in the enterprise. 3. To build up a platform can enhance the interactions and promote experience and skill-sharing among retired employees, such as Facebook, volunteer teams. 4. The important issues related to retirement include financial planning, health promotion, and interest exploring.

Keywords: Retirement Preparation, HR Professionals, Workplace Learning

^{1,2} National Chung Cheng University, Taiwan

**TRACK B: ENGINEERING &
TECHNOLOGY, COMPUTER, BASIC &
APPLIED SCIENCES**

Zero-Day Intrusion Detection System Based on Collaborative Neural Networks with Aggregation Strategy

Chih-Lung Chen^{1*}, Jung-San Lee², Kuo-Jui Wei³, Ying-Chin Chen⁴

Abstract Despite signature-based intrusion detection system (IDS) has played an important role in the field of cyber security, there remains a crucial challenge that the zero-day attack is hard to be solved. This drawback may bring a large amount of loss to an enterprise or an individual. In order to address above issue, we aim to propose a novel IDS framework which is able to conquer zero-day attacks. The framework consists of an AutoEncoder and a deep neural network (DNN), where AutoEncoder is applied to be the zero-day attack detector and DNN is employed as a known attack classifier, respectively. In particular, we have introduced aggregation strategy based on DBSCAN algorithm and voting system for retraining the IDS. The experimental results have demonstrated that the new method can solidly work in a zero-day attack detection.

Keywords: IDS, Zero-Day Attack, AutoEncoder, Aggregation

^{1,2,3,4} Feng Chia University Taichung, Taiwan

Decode Hand-Movement from Cortical Ensemble Activity in Motor Cortex

Shih-Hung Yang^{1*}, Sheng-Wei Lee², Jyun-Wei Huang³, Wen-Chu Huang⁴, Yu-Chieh Chen⁵, Hsin-Yi Lai⁶, You-Yin Chen⁷, Hsien-Kuang Liu⁸

Abstract Brain-computer interface (BCI) helps individuals with spinal cord injury gain assistance in activities of daily living. Invasive BCIs yield higher-quality decoding than noninvasive BCIs due to accurate recording using implanted electrodes. However, non-stationary neural signals make neural decoding more difficult. This study first analyses cortical ensemble activity recorded from motor cortex of nonhuman primate. A number of sorted units and hash unit in each channel are adopted to calculate bin firing rate as neural decoder input. Furthermore, this study analyses the effects of time lag and temporal order on neural decoding where a linear regression method is adopted as the neural decoder. The experimental results show that the hash units are indeed useful for neural decoding. The correlation between the bin firing rate and arm-movement slightly changes from session to session. Velocity decoding achieves more accurate performance than position and acceleration decoding. Furthermore, the neural decoder trained by cross session data could achieve better decoding performance than that trained by single session data. Neural decoding is more accurate when using Cartesian coordinates rather than polar coordinates. These findings help design of neural decoder for invasive BCIs.

Keywords: Neural Decoding, Bin Firing Rate, Nonhuman Primate

^{1,2,3,4,5,6,7,8} National Cheng Kung University Tainan, Taiwan

A Study on Solving Wave Propagating over Axi-Symmetric Topography by an Analytical Solution

Jen Yi Chang^{1*}, Tso Jen Chen²

Abstract In this paper, the mild slope equation is used to solve the wave scattering phenomena around a cylindrical island mounted on a general axi-symmetric topography and a general submerged truncated axi-symmetric shape. The method of separation of variables and Taylor series expansion are invoked to find the approximate solutions to the region of varying water depth which varies proportionally to an arbitrary power of the radial distances. Validation against the solution of waves scattering around cylindrical island on a paraboloidal shoal and wave energy trapped by submerged truncated paraboloidal shoal show excellent agreements as the power of radial distance being equal to two. Since the robustness of the assumption of a general axi-symmetric geometry based on an arbitrary power variability of the radial distance, the present solution can be very conveniently employed to investigate the effects of bottom topography on wave scattering and trapping patterns

Keywords: Axi-symmetric Topography, Mild-Slope Equation, Submerged Truncated Shoal, Wave Refraction, Wave Diffraction

^{1,2}Tainan University of Technology

FUTURE EVENTS

**You can find the Details regarding our future events
by following below:**

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VISION

**Our vision is to promote
research excellence
through networking
Platform.**