

# **EAST MEETS WEST: INNOVATION AND DISCOVERY**

Organised by The International Academic Forum



**June 8–11, 2017**  
**Art Center Kobe, Kobe, Japan**

**The Asian Conference on the Social Sciences**  
**The Asian Conference on Sustainability, Energy & the Environment**  
**The Asian Conference on Aging & Gerontology**

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# ACSS ACSEE AGen 2017

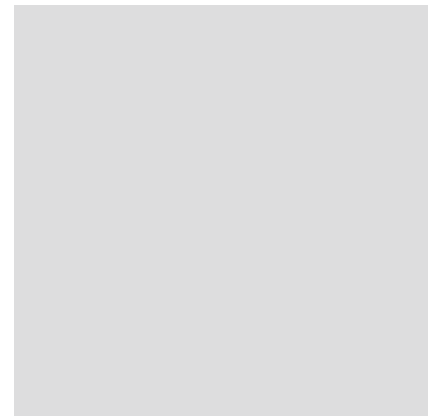
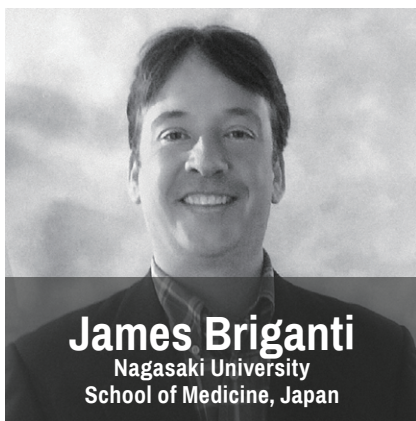
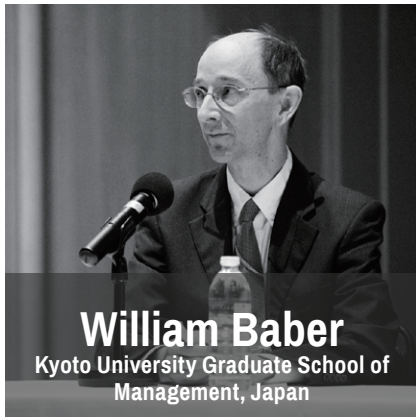
**The Asian Conference on  
the Social Sciences**

**The Asian Conference on  
Sustainability, Energy & the Environment**

**The Asian Conference on  
Aging & Gerontology**



# Organising Committee Members



The Organising Committee of The Asian Conference on the Social Sciences 2017 (ACSS2017), The Asian Conference on Sustainability, Energy & the Environment 2017 (ACSEE2017) and The Asian Conference on Aging & Gerontology 2017 (AGen2017) is composed of distinguished academics who are experts in their fields. Organising Committee members may also be members of IAFOR's International Academic Advisory Board. The Organising Committee is responsible for nominating and vetting Keynote and Featured Speakers; developing the conference programme, including workshops, panels, targeted sessions; undertaking event outreach and promotion; recommending and attracting future Organising Committee members; working with IAFOR to select PhD students and early career academics for IAFOR-funded grants and scholarships; and reviewing abstracts submitted to the conference.



# Welcome to ACSS2017, ACSEE2017 & AGen2017

Dear Colleagues,

Welcome to The Asian Conference on the Social Sciences 2017 (ACSS2017), The Asian Conference on Sustainability, Energy & the Environment 2017 (ACSEE2017) and The Asian Conference on Aging & Gerontology 2017 (AGen2017). These three interdisciplinary conferences, held alongside each other in the beautiful port city of Kobe for the third consecutive year, bring together 200 delegates from 30 countries to explore the theme of "East Meets West: Innovation and Discovery".

Ever since Kobe's port reopened to overseas trade in the mid nineteenth century, the city has been shaped by global influences. In the decades that followed, the influx of European, Chinese and other overseas migrants gave the city an international flavour that endures to this day, playing a fundamental role in Kobe's development into a cultural and culinary centre with a vibrant, metropolitan atmosphere; an apt location in which to discuss the meeting of West and East.

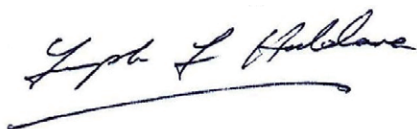
In the face of current global realities, including the effects of climate change, increased migrations of populations, and tensions resulting from globalisation, as well as the impact created by the coexistence of differing cultures, values and traditions, it is essential that we find innovative ways to respond to the challenges we face as an international community. Over the next few days I look forward to hearing our presenters share creative and novel solutions from a range of different national, cultural and disciplinary contexts.

I would like to thank the Keynote and Featured Speakers, as well as the conference Organising Committee and all others who dedicated their time and effort to the preparation of this conference. I would also like to thank our AGen2017 Event Partners, the National Archive of Computerized Information on Aging (NACDA) at the University of Michigan, USA, and the University of Tokyo, Japan.

We are pleased to welcome Miriniza Cerrero, recipient of the Stuart D. B. Picken Grant and Scholarship, and Christoforos Ioannidis, Dwight Jason Ronan, Reshma Shrestha and Jean-Isamu Taguchi, recipients of IAFOR Scholarships, who we are recognising for the quality of their academic achievement and their contribution to interdisciplinarity. Newly launched for 2017, IAFOR's grants and scholarships programme provides financial support for PhD students and early career academics, with the aim of helping them pursue research excellence and achieve their academic goals through interdisciplinary study and interaction. We would like to congratulate all the recipients on their awards.

Last but by no means least, I would like to thank you all for travelling to Kobe to take part in this multidisciplinary event. I look forward to meeting you, and to the stimulating and challenging discussions that the coming days will bring.

Warm regards,

A handwritten signature in blue ink, reading "Joseph Haldane", with a horizontal line underneath.

**Joseph Haldane, Chairman & CEO, IAFOR**



# East Meets West: Innovation and Discovery

## ACSS/ACSEE2017

From natural phenomena and the results of climate change to pollution and societal traumas, migrations and war, the enormous challenges that face humankind and our environment are frequently daunting and difficult to comprehend. However, with every new challenge or disruption comes the opportunity for innovation and discovery. Whether inventing new technologies, implementing innovative systems, enacting better policies, legislation or governance, or ensuring greater cooperation and information sharing, responses are many and varied.

From incremental shift to radical change, from the local to the regional and from the national to the global, this international conference will focus on the challenges that demand a collective response. It will highlight the need to harness our abilities as scientists, policymakers, practitioners, engineers and educators to find multidisciplinary solutions in pursuit of the common goal of a sustainable world.

## AGen2017

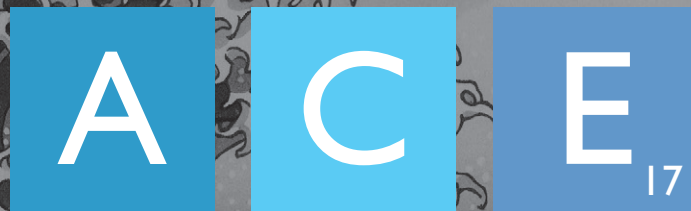
Our theme explores the tensions that have emerged due to globalisation and the growing influence of Western cultural values on Eastern traditions such as intergeneration coresidence, filial piety and the family-based support networks that provide for the care of the elderly in later life. Jolly and Macintyre's depiction of the persistent belief in an "unchanging cultural core" of bedrock values such as family support for the elderly has resulted in the resistance of many governments in Asia and the Pacific Rim to plan effectively for the care and needs of a growing aging population. By treating culture as a dynamic process that adapts to new ideas, opportunities and economic realities we can anticipate change and implement proactive policies that support the elderly, their families and the societies that are ultimately responsible for the quality of life among their populations. This conference serves as an opportunity to present new research on the changing face of aging in the Asia-Pacific Region, to network with fellow professionals and to develop policy interventions that improve the lives of our elders.

The growing disconnect in Asia from traditional forms of family support is seen in the increased shift towards more Western models of independence for elders, decreased levels of coresidence and extended family living, and the weakening of family support networks. In particular, AGen2017 seeks presentations on intergeneration support, the economics of retirement, the changing health patterns of the elderly, independent living, the residential patterns of the elderly, or assistive technologies. The Asian Conference on Aging & Gerontology is the only international conference on aging held annually in Japan and we welcome your participation and research.





# Conference Guide



# The Asian Conference on Education

OCTOBER 19–22, 2017 | KOBE, JAPAN

## Conference Theme: Educating for Change

Final Abstract Submission Deadline: **August 7, 2017**

Final Registration Deadline: **September 7, 2017**

## Why Attend ACE2017?

Since 2009, The Asian Conference on Education has attracted

**2400+** delegates from **60+** countries

## Join IAFOR at ACE2017 to:

- Present to a global audience
- Have your work published in the Conference Proceedings and considered for peer-reviewed, Open Access journals
- Benefit from IAFOR's interdisciplinary focus by hearing about the latest research in education
- Participate in a truly international, interdisciplinary and intercultural event
- Take part in interactive audience sessions
- Network with international colleagues

Find out more: [ace.iafor.org](http://ace.iafor.org)



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# Friday at a Glance

## June 9, 2017

08:30-09:30	Conference Registration   Open Studio (2F) Coffee & tea will be served from 09:00
09:30-09:45	Announcements & Welcome Address   Prokofiev Hall (2F)
09:45-10:45	<b>Plenary Panel Presentation I   Prokofiev Hall (2F)</b> <i>East Meets West</i> <b>Keynote Presentation:</b> Toshiya Hoshino <b>Respondents:</b> Haruko Satoh, Osaka University, Japan and Michael Anthony C. Vasco, University of Santo Tomas, The Philippines
10:45-11:15	Coffee Break
11:15-11:45	<b>Featured Presentation   Prokofiev Hall (2F)</b> <i>Methodologies for the Collection of Comparative Community Level Public Health Data: Obtaining Powerful and Statistically Meaningful Findings for Small Populations</i> James W. McNally, University of Michigan, USA
11:45-12:15	<b>Plenary Panel Presentation II   Prokofiev Hall (2F)</b> <i>Easts Meets West – Healthy, Active and Beautiful Aging in Asia</i> Hiroshi Ishida, University of Tokyo, Japan James W. McNally, University of Michigan, USA
12:15-12:30	IAFOR Documentary Photography Award 2016 Winners' Screening followed by Conference Photograph
12:30-14:00	Lunch
14:00-14:30	<b>Featured Presentation   Prokofiev Hall (2F)</b> <i>Establishing a Value Mindset</i> Philip Sugai, Doshisha Business School, Japan
14:30-15:00	<b>Spotlight Presentation   Prokofiev Hall (2F)</b> <i>Can Data Science Do Without the Field Survey? Developing Innovative Statistical and Cartographic Methodologies Involving Small and Big Data Analyses in Social Sciences</i> Maxime Jaffré, Ecole des Hautes Etudes en Sciences Sociales (EHESS), France
15:00-15:30	<b>Spotlight Presentation   Prokofiev Hall (2F)</b> <i>Xinhua News Agency's Coverage of the Kunming Railway Station Attack in the Context of Reshaping China's National Identity</i> Guo-qiang Liu, Deakin University, Australia
15:30-15:45	Coffee Break

The schedule for Friday continues on page 8.

# Friday at a Glance

## June 9, 2017

Continued from page 7.

15:45-16:45	Conference Poster Session I   Room 504 (5F)
16:45-17:00	Coffee Break
17:00-18:00	Conference Poster Session II   Room 504 (5F)
18:00-19:00	Conference Welcome Reception
19:30-21:30	<b>Conference Dinner (Optional Ticketed Event)</b> Meeting time & location: 18:45 at Art Center Kobe (2F lobby) Group leaves for restaurant at 19:00.

# Saturday at a Glance

## June 10, 2017

09:00-10:30	Parallel Sessions
10:30-10:45	Coffee Break
10:45-12:45	Parallel Sessions
12:15-13:45	Lunch
12:00-13:00	<b>Shodō Workshop (Japanese Calligraphy)   Room 504</b>
13:30-15:00	Parallel Sessions
15:00-15:15	Coffee Break
15:15-16:45	Parallel Sessions
16:45-17:00	Coffee Break
17:00-17:30	<b>Spotlight Presentation   Room 501 (5F)</b> <i>Applying a Rights-Based Approach in Investigating Repatriation of Fukushima's Nuclear Refugees</i> Jane Singer, Kyoto University, Japan
17:45-18:45	<b>Spotlight Workshop Presentation   Room 501 (5F)</b> <i>Using Mindfulness Practices to Improve Mental Health and Address Unconscious Bias</i> Kamilah Majied, Howard University School of Social Work, USA



# Sunday at a Glance

## June 11, 2017

09:00-10:30	Parallel Sessions
10:30-10:45	Coffee Break
10:45-12:45	Parallel Sessions
12:15-13:45	Lunch
13:30-15:30	Parallel Sessions
<b>15:30-16:00</b>	<b>Conference Closing Address</b>

# Information & Access

## Registration

You will be able to pick up your registration pack and name card at the Conference Registration Desk. The Conference Registration Desk and Publications Desk will be situated in the following locations during the conference:

Friday, June 9	08:30-15:00	Open Studio (2F)
	15:00-18:00	Room 504 (5F)
Saturday, June 10	08:30-18:00	Room 504 (5F)
Sunday, June 11	08:30-15:30	Room 504 (5F)

If you have any questions or concerns, IAFOR staff and volunteers will happily assist you in any way they can.

## Name Badges

When you check in, you will receive a registration pack, which includes your name badge. Wearing your badge is required for entrance to the sessions. You must wear your badge at all times during the conference. There are four colours of badges indicating the type of conference participant:

**Red:** Presenters and Audience

**Yellow:** Keynote and Featured Speakers

**Blue:** Conference Exhibitors and Affiliates

**Black:** IAFOR Staff

## Getting to the Conference Venue

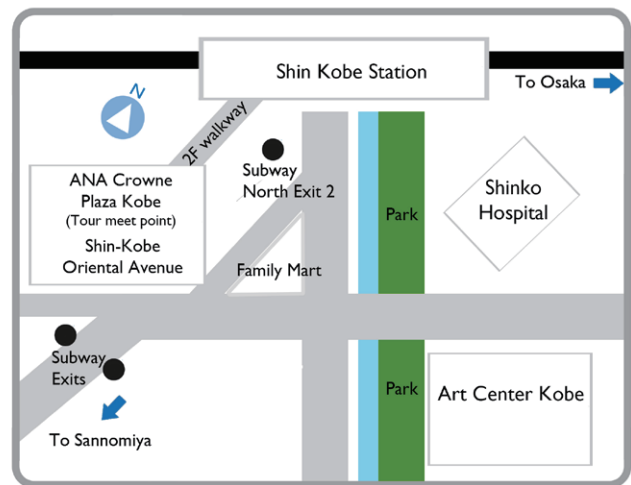
**From Kansai International Airport:** Board the Kobe-bound Airport Limousine Bus from bus stop number 6 on the first floor of Kansai International Airport. Get off at Sannomiya Station (see "From Sannomiya Station" below).

**By Bullet Train (Shinkansen):** The Art Center Kobe is a five-minute walk from the first-floor exit of Shin-Kobe Station. There are regular bullet train (Shinkansen) services from Osaka (15 minutes), Kyoto (30 minutes) Tokyo (2 hours 48 minutes) and Hiroshima (1 hour 13 minutes).

**From Sannomiya Station (Kobe Downtown Area):** The bustling downtown centre of Sannomiya, with a huge range of restaurants, bars, cafes and shops, is a 15-minute walk or a short direct subway ride away. The limited express train from Osaka Station to Sannomiya takes around 30 minutes.

There are three options:

- Take the subway to Shin-Kobe Station on the Seishin-Yamate Line (about two minutes)
- Take a taxi to the Art Center Kobe (about five minutes)
- Walk to the Art Center Kobe (about 15 minutes)



# Lunch & Dinner

## Lunch

Lunch on Friday, Saturday and Sunday is included in the conference registration fee. Your IAFOR lunch voucher can be exchanged for lunch at Mame no Hatake located in the ANA Crowne Plaza, a five-minute walk away from the conference venue. Please collect your lunch voucher from the IAFOR staff member situated outside the restaurants at the ANA Crowne Plaza during the lunch period (lunch times below). Please remember to bring your conference name badge as you will need to show this in order to claim your voucher. Please show your voucher to restaurant staff as you enter. Please see the map below for directions.

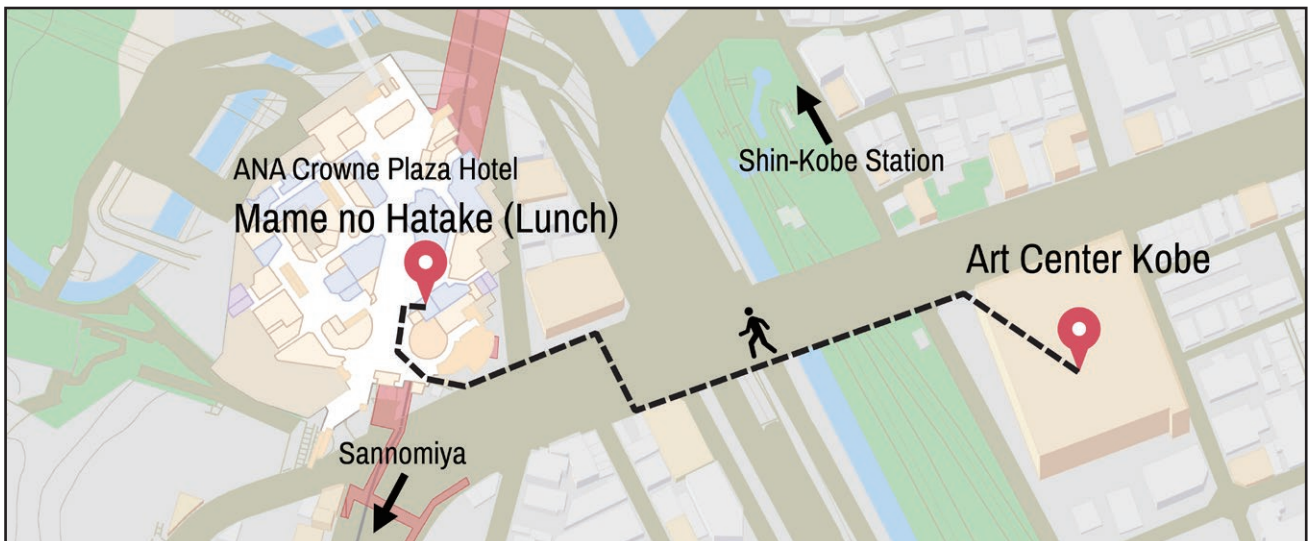
**Restaurant name:** Mame no Hatake (豆乃畑)

**Restaurant address:** Shin-Kobe Oriental Avenue 2F (ANA Crowne Plaza), Kitanochō 1-1, Chuo-Ku, Kobe

This Japanese buffet-style restaurant has a great variety of Japanese dishes available, including vegetarian and vegan options. The restaurant specialises in tofu-based and traditional Japanese vegetable dishes. Lunch service includes an unlimited drinks bar, coffee station and dessert table.

## Lunch Times

Friday, June 9	12:30-14:00
Saturday, June 10	12:15-13:45
Sunday, June 11	12:15-13:45



## Official Conference Dinner

The official Conference Dinner is a ticketed optional event (5,000 JPY). Please remember to bring your name tag to the Conference Dinner. Conference Dinner attendees should meet in the Art Center Kobe 2F Lobby at 18:45 on Friday, June 9, 2017. The group leaves for the restaurant at 19:00. It takes approximately 25 minutes to walk to the restaurant.

**Restaurant name:** Ganko

**Restaurant address:** Kitanagasaki 3-1-17, Chuo-ku, Kobe

**Japanese name:** がんこ トアロード店

**Japanese address:** 神戸市中央区北長狭通3-1-17 がんこ トアロード店



# General Information

## Internet Access

There is free Wi-Fi internet connection on the fifth floor of Art Center Kobe\*. However, this can be unreliable and we would strongly suggest that you do not rely on a live connection for your presentation.

**Wi-Fi Connection Name:** kobe-art

**Wi-Fi Password:** art12345

**\*There is no Wi-Fi connection on the second floor of Art Center Kobe.**

## Refreshment Breaks

Complimentary coffee, tea and water will be available during the scheduled coffee breaks at the Plenary Session on Friday morning on the second floor and in Room 504 (5F) during the rest of the conference. Light snacks will also be provided.

**Food and drink (excluding water) are not allowed in the presentation rooms. Also, please refrain from consuming food and drink in and around the 2F entrance area.**

## Printing

For your convenience, there will be an iMac computer (with Microsoft Office installed) and a printer at the conference Registration Desk. We are able to offer a complimentary printing service of up to ten A4 sheets should you need this. Please be advised that printing may not be available at peak times.

The Crowne Plaza operates a business centre for copying, printing and scanning. This business centre is staffed and open between 09:00 and 17:00 daily.

## Smoking

Smoking is not permitted in the Art Center Kobe. Please smoke outside of the building in designated smoking areas.

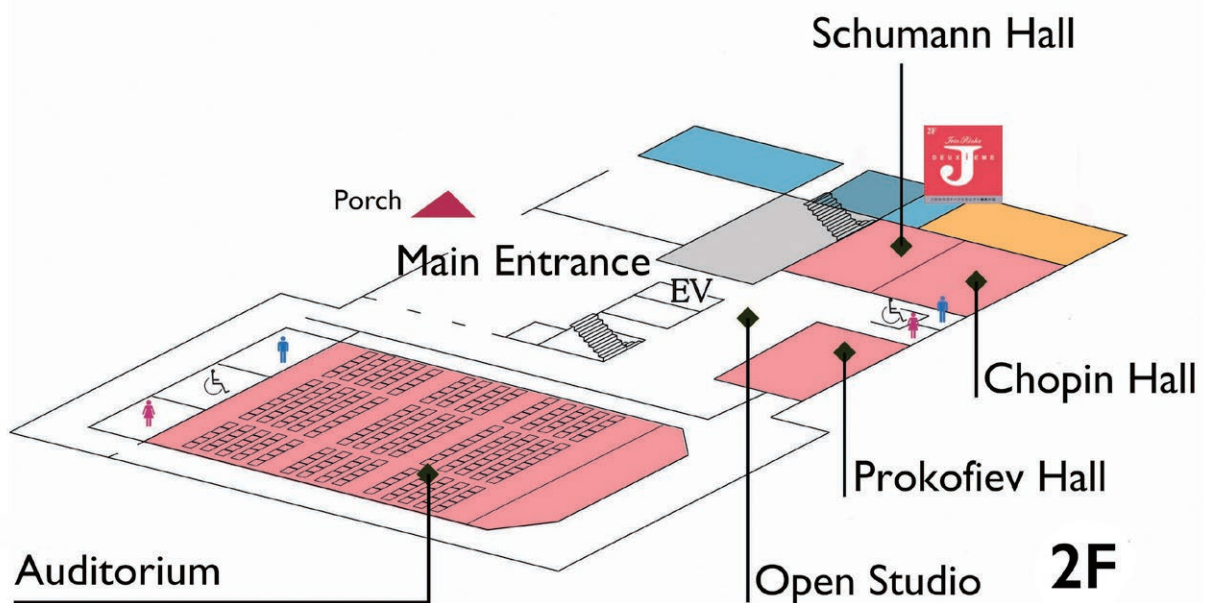
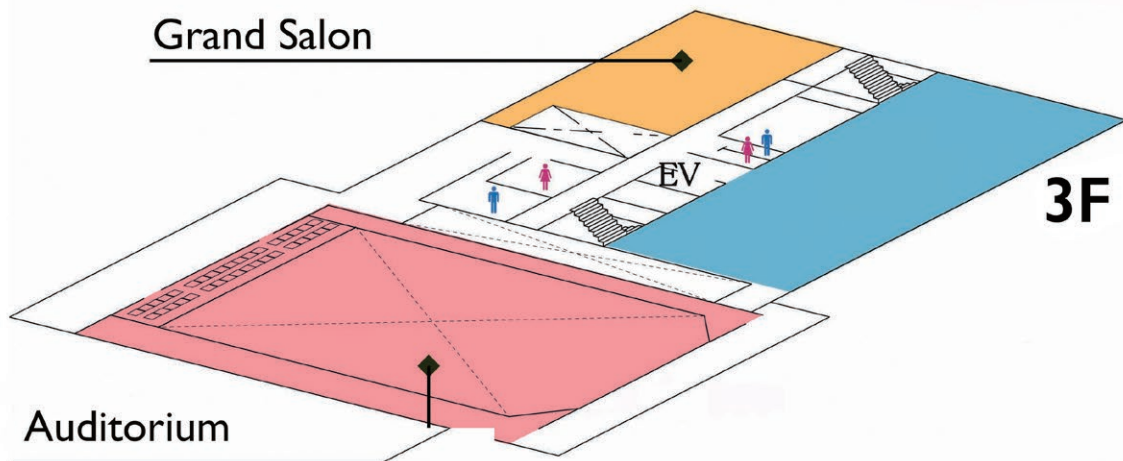
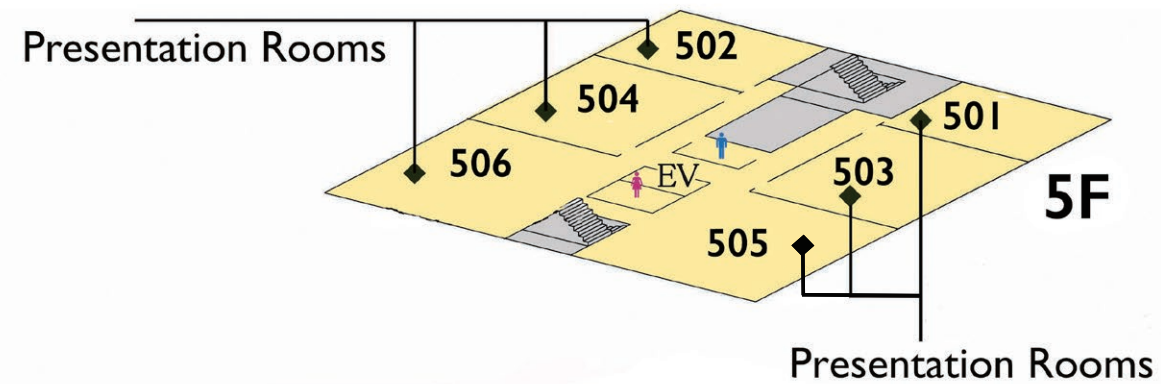
## What to Wear & Bring

Attendees generally wear business casual attire. You may wish to bring a light jacket or sweater as meeting rooms are air-conditioned. Our attendees are encouraged to wear comfortable shoes and bring an umbrella or waterproof in case of rain.

## Photo/Recording Waiver

There may be photography, audio and video recording at the conference. By entering the event premises you give consent to the use of your photograph, likeness or video or audio recording in whole or in part without restriction or limitation for any educational, promotional, or other purpose for distribution.

# The Art Center Kobe Floor Guide





# Presentation Guide

## Conference Abstracts

All conference abstracts are available online. Please visit [papers.iafor.org](http://papers.iafor.org) for a searchable database of abstracts.

## Oral & Workshop Presentations

Oral Presentation Sessions will run from 09:00 on Saturday and Sunday morning. They are generally organised into parallel sessions by streams. Oral Presentations are normally scheduled in sessions comprising three presentations, lasting 90 minutes in total. In sessions with two Oral Presentations, the session will last 60 minutes, and in the case of four Oral Presentations, an extended session lasting 120 minutes will be scheduled.

The time in the sessions is to be divided equally between presentations. We recommend that an Oral Presentation should last 15–20 minutes to include time for question and answers, but should last no longer than 25 minutes. Any remaining session time may be used for additional discussion.

## Equipment

All rooms will be equipped with a MacBook computer pre-installed with PowerPoint and Keynote and connected to a LCD projector. If you wish, you may directly link your own PC laptop, although we advise you to use the computer provided by plugging in your USB flash drive. We recommend that you bring two copies of your presentation in case one fails, and suggest sending yourself the presentation by email as a third and final precaution.

## Session Chairs

Session Chairs are asked to introduce themselves and other speakers (briefly) using the provided printouts of speaker bios, hand out the provided presentation certificates at the end of the session, ensure that the session begins and ends on time, and that the time is divided fairly between the presentations. Each presenter should have no more than 25 minutes in which to present his or her paper and respond to any questions. The Session Chair is asked to assume this timekeeping role, and to this end yellow and red timekeeping cards are used as a visual cue for presenters, letting them know when they have five minutes remaining, and when they must stop.

**Please follow the order in the programme, and if for any reason a presenter fails to show up, please keep to the original time slots as delegates use the programme to plan their attendance.**





# Presentation Guide

## Poster Sessions

Poster Sessions are 60 minutes in length and take place in Room 504 (5F).

The poster display boards are 1800 mm high x 900 mm wide. Tape will be provided for putting posters up. Please be aware that there are no on-site facilities for printing posters.

## Presentation Certificates

Poster Presenters can pick up a certificate of presentation from the Registration Desk. All other presenters will receive a certificate of presentation from their Session Chair or a member of staff at the end of their session.

## Conference Proceedings

The Conference Proceedings are published on the IAFOR website ([papers.iafor.org](http://papers.iafor.org)), and can be freely accessed as part of IAFOR's research archive. All authors may have their full paper published in the online Conference Proceedings.

**Full text submission is due by July 11, 2017 through the online system.** The proceedings will be published on August 11, 2017. Authors will have PDF copies of their offprints emailed to them by September 11, 2017.

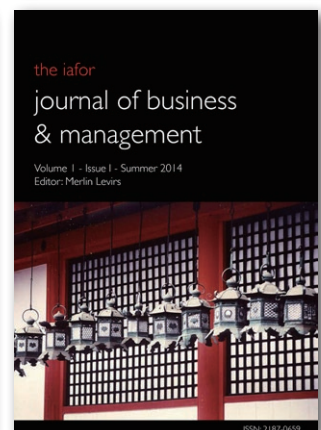
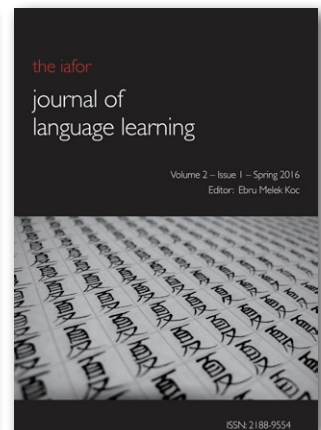
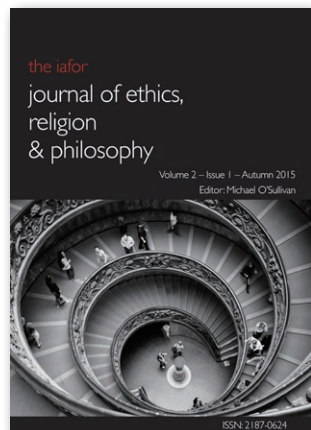
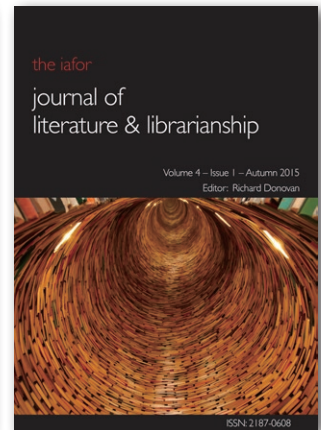
## A Polite Request to All Participants

Participants are requested to arrive in a timely fashion for all presentations, whether to their own or to those of other presenters. Presenters are reminded that the time slots should be divided fairly and equally between the number of presentations, and that presentations should not overrun.

**Participants should refrain from talking amongst themselves and ensure that mobile phones are switched off or set to silent mode during presentations.**

# IAFOR Journals

[www.iafor.org/journals](http://www.iafor.org/journals)





The International Academic Forum's journals conform to the highest academic standards of international peer review, and are published in accordance with IAFOR's commitment to make all of our published materials available online.

## How are journal editors appointed?

Journal editors are appointed by The International Academic Forum's leadership, under the guidance of the International Advisory Board. The term of appointment is for one issue, to be renewed by mutual consent.

## How do we ensure academic integrity?

Once appointed, the journal editor is free to appoint his or her own editorial team and advisory members. All papers published in the journal have been subjected to the rigorous and accepted processes of academic peer review. Neither editors nor members of the editorial team are remunerated for their work. Authors will never be asked to contribute to publication costs.

## How are papers selected?

Journal editors may accept papers through an open call, and proposed articles may be sent directly to the respective editors. A small number of papers from the associated Conference Proceedings may also be selected by the journal editor(s) for reworking and revising, subject to normal processes of review. It is expected that between five and ten percent of papers included in any given Conference Proceedings will be selected for consideration and potential publication in the associated conference journal.

## How are IAFOR journals related to IAFOR conferences?

IAFOR's journals reflect the interdisciplinary and international nature of our conferences and are organised thematically. Papers included in the associated Conference Proceedings may be considered for reworking by the editor(s), and are then subjected to the same processes of peer review as papers submitted by other means.

# Journal Editors

### **IAFOR Journal of Arts & Humanities**

Dr Alfonso Garcia Osuna, Hofstra University, USA

### **IAFOR Journal of Literature & Librarianship**

Dr Richard Donovan, Kansai University, Japan

### **IAFOR Journal of Education**

Dr Bernard Montoneri, Tamkang University, Taiwan

### **IAFOR Journal of Business & Management**

Dr Anshuman Khare, Athabasca University, Canada

### **IAFOR Journal of the Social Sciences**

Dr Tingting Ying, Ningbo University of Technology, China

### **IAFOR Journal of Ethics, Religion & Philosophy**

Professor Lystra Hagley-Dickinson, University of St Mark & St John, UK

### **IAFOR Journal of Sustainability, Energy & the Environment**

Dr Alexandru-Ionut Petrisor, University of Architecture and Urban Planning, Romania / URBAN-INCERC, Romania

### **IAFOR Journal of Media, Communication & Film**

Dr James Rowlin, Singapore University of Design and Technology, Singapore

### **IAFOR Journal of Asian Studies**

Dr Seiko Yasumoto, University of Sydney, Australia

### **IAFOR Journal of Language Learning**

Dr Ebru Melek Koç, Izmir Institute of Technology, Turkey

### **IAFOR Journal of Politics, Economics & Law**

Dr Craig Mark, Kyoritsu Women's University, Japan

### **IAFOR Journal of Cultural Studies**

Professor Holger Briel, Xi'an Jiaotong-Liverpool University, China

### **IAFOR Journal of Psychology & the Behavioral Sciences**

Dr Shahrokh Shafaie, Southeast Missouri State University, USA  
Dr Deborah G. Wooldridge, Bowling Green State University, USA





## **The Reverend Professor Stuart D. B. Picken (1942–2016)**

It is with sadness that we inform our friends of IAFOR that the Chairman of the organisation, the Reverend Professor Stuart D. B. Picken, passed away on Friday, August 5, 2016.

Stuart Picken was born in Glasgow in 1942 and enjoyed an international reputation in philosophy, comparative religious and cultural studies, but it is as a scholar of Japan and Japanese thought for which he will be best remembered, and as one of the world's foremost experts on Shinto.

Picken entered the University of Glasgow, Scotland, aged 16 to study divinity and philosophy, and his studies culminated with a doctorate that looked at Christianity and the work of Kant. In 1966 he was ordained in the Church of Scotland, and began his career as a minister in Orkney. However, his curiosity led him from isolated rural Scotland to the world's largest city, and following a visit to Tokyo on a Rotary scholarship, Picken was appointed Professor of Philosophy at the International Christian University (ICU) in 1972. Here he turned his western theological and philosophical training to comparative religious and cultural studies of Japan, at a time when the country was emerging from the shadows of the Second World War.

His groundbreaking and controversial work on suicide in Japan made his name within the country, but it was his subsequent work on Shinto that influenced the rehabilitation of the religion at a time when it was dismissed in the west as pagan and primitive, or unjustly caricatured for its wartime associations.

As Japan emerged as an economic superpower in the 1970s and 1980s, and given his growing prominence as an academic, Picken was much in demand as part of a period in which Japanese wanted to learn more about themselves as seen through the eyes of the West, and where Western businesses were eager to learn from the all-conquering Japanese model. By then fluent in Japanese, he served as a business consultant to such corporations and also served as a consultant to various businesses, including Jun Ashida Ltd., Mitsui Mining & Smelting Corp. , Kobe Steel and Japan Airlines. During this period he was active in the St Andrew Society, and founded the Tokyo Highland Games, which is still an annual event.

The author of a dozen books and over 130 articles and papers, Picken was to stay at ICU for 25 years, where he was a popular lecturer and mentor to both Japanese and visiting scholars, serving tenures as Chairman of the Division of Humanities from 1981 to 1983, and as Director of Japanese Studies from 1995 to 1997, as well as concurrently founding Director of the Centre for Japanese Studies at the University of Stirling, Scotland from 1985 to 1988. A keen amateur footballer, whose devotion to Japan was rivalled only by that he felt for Glasgow Rangers, he continued to play into his fifties at ICU, encouraging many students to take up the sport.



He left ICU in 1997, and from then until 2004 served as the founding Dean of the Faculty of Foreign Languages and Asian Studies at Nagoya University of Commerce and Business, and the founding Dean of the Graduate School Division of Global Business Communication from 2002 to 2004. Upon his retirement from his academic posts, he returned to Scotland to re-enter the ministry as minister of the linked charge of Ardoch with Blackford in 2005, yet he continued his academic and Japanese interests as the Chairman of the Japan Society of Scotland.

Whether in his research or teaching, Picken devoted much of his life to increasing understanding between his adopted country and the West, and in 2007 he was recognised with the Order of the Sacred Treasure, an imperial decoration for his pioneering research and outstanding contribution to the promotion of friendship and mutual understanding between Japan and the UK. He also served as the International Adviser to the High Priest of the Tsubaki Grand Shrine, one of Japan's largest and oldest shrines.

From 2009 he was the founding Chairman of The International Academic Forum (IAFOR) where he was highly active in helping nurture and mentor a new generation of academics, and facilitating better intercultural and international awareness and understanding. In the years immediately preceding his illness, he continued to lecture throughout the world, in Europe, North America, Asia and the Middle East.

He is survived by his wife, Hong Wen, and children, Fiona, Jeannette, William and Lynn.

Image Caption | The Reverend Professor Stuart D. B. Picken (IAFOR), Professor Arthur Stockwin, OBE (The University of Oxford) and Professor Jun Arima (University of Tokyo) enjoy a lighter moment during a discussion on Japanese security at The European Conference on Politics, Economics & Law 2014.

# IAFOR Academic Grant & Scholarship Recipients

We are delighted to announce the recipients of financial support as part of the IAFOR grants and scholarships programme, newly launched for 2017. Our warmest congratulations go to Miriniza Cerrero, recipient of the Stuart D. B. Picken Grant and Scholarship, and Christoforos Ioannidis, Dwight Jason Ronan, Reshma Shrestha and Jean-Isamu Taguchi, recipients of IAFOR Scholarships, who have been selected by the conference Organising Committee to receive financial support to present their research at The Asian Conference on the Social Sciences 2017, The Asian Conference on Sustainability, Energy & the Environment 2017 and The Asian Conference on Aging & Gerontology 2017.

IAFOR's grants and scholarships programme provides financial support to PhD students and early career academics, with the aim of helping them pursue research excellence and achieve their academic goals through interdisciplinary study and interaction. Awards are based on the appropriateness of the educational opportunity in relation to the applicant's field of study, financial need, and contributions to their community and to IAFOR's mission of interdisciplinarity. Scholarships are awarded based on availability of funds from IAFOR and vary with each conference.

The Organising Committee of the relevant IAFOR conference awards scholarships to eligible applicants who have submitted exceptional abstracts that have passed the blind peer review process and have been accepted for presentation at the conference.

Find out more about IAFOR grants and scholarships: [iafor.org/financial-support](http://iafor.org/financial-support)

## Miriniza Cerrero Stuart D. B. Picken Grant & Scholarship Recipient

Miriniza E. Cerrero is currently a PhD student in Political Science at the University of the Philippines in Diliman, Quezon City, the Philippines. She has a Bachelor's degree in History and Master's degrees in Education and International Studies. Her research interests include international finance, political economy, policy analysis and strategic studies.

**35901 Sunday 14:00-14:30 | Prokofiev Hall (2F)**

*The UNSC Resolution 1540: Prospects and Challenges for Regional Governance and Cooperation in Southeast Asia*

Miriniza Cerrero, University of the Philippines Diliman, The Philippines

Southeast Asia is a significant player, potentially as both consumer and producer, in the development and trade of WMD material. The availability and accessibility of WMD material or CBRN weapons has lost its exclusivity to government official use and military authorities, thus exposing Southeast Asia to grave threats and damages to regional peace and human security. The dual-benefit argument where nuclear energy is seen as a solution to the dwindling energy resources needed for continued growth and development exacerbate the illicit and political nature of WMD proliferation. The paper examines the interaction between the UN Security Council (UNSC) Resolution 1540 and its implementation or non-implementation by Southeast Asian countries by using history and theories of international relations and international law. It seeks to gather evidence for why some countries in the region are constrained in complying with the obligations while others have successfully incorporated these into their own state practices. It will also attempt to conceptualize the nature of regional cooperation and norms of consensus-building created by this particular case of harmonizing Southeast Asian state practices with Resolution 1540 and draw on lessons and policy implications on regional geopolitics, human security, international law and technology.

## Dwight Jason Ronan IAFOR Scholarship Recipient

Dwight Jason Ronan grew up in the university town of Los Baños in the Philippines. Since 2008, he has worked with different development organisations in South East Asia, most extensively in Myanmar, the Philippines and Thailand. He has specifically provided capacity building and communication expertise on various development initiatives on sustainable agriculture, marine governance, peacebuilding and post-disaster livelihood recovery. He is also actively involved in various community youth work initiatives in the region. At present, he is based in Thailand working on sustainable rural development issues in the Greater Mekong Subregion. He holds a Master's degree in regional and rural development planning and a Bachelor's degree in development communication.

**35180 Saturday 16:15-16:45 | Room 503 (5F)**

*Farmers' Perceptions and the Extent of their Adoption of Measures to Manage the Coconut Scale Insect Outbreak in Southern Luzon, Philippines*

Dwight Jason Ronan, Mekong Institute, Thailand

A massive outbreak of coconut scale insect recently hit one of the most coconut-productive regions in the Philippines. The rapid spread and wide scale damage caused by the invasive species pushed farmers to adopt various emergency control measures. The study examined the extent of adoption among farmers and their perceptions towards these measures based on a survey of 91 farm households in Tiaong Municipality, Quezon Province. The study found out that only a few farmers fully adopted the measures recommended by authorities. Reasons for low adoption include weak coordination and institutional support as well as strong opposition from some farmers especially on chemical and biocontrol measures. Furthermore, qualitative data gathered from the field indicate a general lack of interest among farmers to control the invasive CSIs. T-tests showed significant differences between the perceptions of users and non-users of inorganic insecticides especially on its perceived risks on health, environment, and profit. On the other hand, farmers who decided to adopt biocontrol measures consider the measure to be highly compatible while non-users view the otherwise. Users and non-users of other measures have relatively similar perceptions. The study shows that farmers' perceptions towards new practices and technologies play a significant role in their decisions whether to use or not use these innovations. Based on these findings, the study recommends authorities to carry out more sustainable and long-term strategies to manage CSIs, improve IPM and ISM services delivery in the country, and strengthen efforts to support Filipino coconut farmers.



# IAFOR Academic Grant & Scholarship Recipients

## Jean-Isamu Taguchi

### IAFOR Scholarship Recipient

Jean-Isamu Taguchi is a PhD candidate in comparative law and politics in the Graduate School of Law in Nagoya, Japan. His research focuses on the regulation of sustainable development aspects in public contracts, such as Public-Private Partnerships in infrastructure and mining contracts, particularly in developing countries. He worked as a consultant at the PPP group of the World Bank in 2016, and as a legal officer assistant in environmental and human rights NGOs in 2011 and 2012 in Saint Petersburg, Russia. He graduated in public international law and international organization law from the University of Paris 1 Pantheon-Sorbonne, France. He also obtained a Master's in comparative law and politics at Nagoya University, where he wrote a thesis on the implementation of free, prior, and informed consent of indigenous people in the mining industry in the Philippines. He also led a joint research project on the sustainability of the mining industry in the Philippines.

**35868 Sunday 09:00-09:30 | Room 503 (5F)**

*Integrating Environmental and Social Sustainability in Public-Private Partnerships in Infrastructure: Focus on Effective Strategies in Asia*

Jean-Isamu Taguchi, Nagoya University, Japan

This paper investigates the inclusion of environmental and social (E&S) sustainability in Public-Private Partnerships in infrastructure (PPPs). These partnerships involve long-term and complex contracts between a public authority and private parties to deliver infrastructure services, in which the private party bears significant risks. Multilateral development agencies and international organizations, for instance ASEAN, strongly promote PPPs to achieve sustainable development. At present, international organizations' resources and guidelines, as well as the literature, focus primarily on the financial aspects of PPPs and pay little attention to the environmental and social sustainability of these projects. However, several Asian countries have effectively included E&S aspects in PPP projects or PPP legislations. Drawing on several projects in Laos, India, and Philippines, this paper analyses effective strategies that could be used to integrate environmental and social sustainability aspects into the legal and regulatory frameworks of PPPs. First, this paper investigates how sustainability issues are included at each stage of the PPP cycle, emphasizing the significance of E&S criteria in attributing the PPP project. Second, the paper highlights the tools and contractual mechanisms to enhance public participation and benefit sharing in PPPs, such as community development agreements, or community ownership schemes. These mechanisms not only increase acceptability of PPP projects by affected communities, but can also yield secondary benefits on climate change or gender policies. Based on this analysis, the paper finally suggests recommendations to integrate environmental and social sustainability, so that PPPs can become a tool to harness sustainable development in infrastructure projects.

## Christoforos Ioannidis

### IAFOR Scholarship Recipient

Christoforos Ioannidis is currently a lecturer in Law at Central China Normal University School of Law and a PhD candidate at King's College London. Born in Cyprus, he was educated at the National and Kapodistrian University of Athens, Greece, and graduated with a Bachelor's degree in Law. He obtained a Master's in International Law from The University of Edinburgh, UK, immediately after. He then taught for three years at Chulalongkorn University in Bangkok, Thailand, and moved to the United States for two years, where he obtained a Master of Arts in Philosophy from Arizona State University. After teaching for a short while at Thammasat University in Bangkok, Thailand, he moved to London to start his PhD at King's College London, which he is currently pursuing. His areas of interest lie within both Philosophy and Law, and in particular in Ethics, Social and Political Philosophy, Philosophy of Law and International Law.

**34479 Sunday 13:30-14:00 | Prokofiev Hall (2F)**

*On Identity of States: What is Sovereignty in a Post-Human Rights Era?*

Christoforos Ioannidis, King's College London, UK & Central China Normal University, China

State sovereignty is a concept that became central to discussions in international law with the peace of Westphalia. Nowadays, international human rights, especially through humanitarian intervention, are deemed as either clashing with or being exemptions of state sovereignty. We live in a world where words change their meaning and efforts to define/redefine concepts and present them as somehow compatible render them more and more unclear. In this discussion, I offer a concrete solution to the issue with a clear understanding these concepts ought to have in the realms of Philosophy and Law, immune to changes of policies in the international realm, on a reasoning, which rests on the firm basis of legal and a clear understanding of legitimacy. First, Legal Positivism detaches morality from the legal validity of norms and thus conceptualizes sovereignty, contrary to Weber, as morally neutral. Second, legitimacy, a moral term, is an independent concept, which has neither necessary nor contingent relationship with sovereignty. I refer to how political developments construed the actual meaning of the concepts of sovereignty and human rights, crucial protection of which is political choice and not necessary entailment of relevant norms. I analyze three possible outcomes of how sovereignty can be construed and I conclude with the proper definition and understanding of state sovereignty.

# IAFOR Academic Grant & Scholarship Recipients

## Reshma Shrestha

### IAFOR Scholarship Recipient

I am currently a PhD Candidate at University of South Australia, Australia, and my research topic is "Towards Age-Friendly Housing and Built Environment". Previously I was working as a Town Planning Consultant in a private consultancy at Town Planning Pty. Ltd, Adelaide, South Australia. Before that, I worked as a Lecturer at Acme Engineering College, Kathmandu, Nepal, teaching undergraduate students, and was involved in different research organisations. Regarding my education, I graduated with a Bachelor's degree in Architectural Engineering from Khwopa Engineering College, Nepal, and obtained my Master's Degree in Urban Planning and Management from ITC, University of Twente, Netherlands. My Master's involved six months of research and I have also worked as a Research Assistant, Urban Planner and Architect on various projects. My research interests are Ageing and Housing, Built Environment, Low Carbon Development, Sustainable Transportation, Disaster Preparedness, Heritage Conservation, among others.

#### 36299 | Virtual Presentation

##### *Towards Age-Friendly Built Environment*

Reshma Shrestha, University of South Australia, Australia

Alpana Sivam, University of South Australia, Australia

Sadasivam Karuppannan, University of South Australia, Australia

The population of aged people is increasing dramatically throughout the world and this demographic variation is generating different challenges for societies, families and individuals in many different ways. One of the effective approaches for responding towards demographic ageing is to have more evidences on creating age-friendly communities. Despite of having number of researches on ageing, there is limited knowledge on identifying components for developing age-friendly communities and cities. This research therefore, aims at discovering the benefits of properly designed age-friendly communities and interrelationships of key related concepts. To accomplish this aim, relevant research papers have been reviewed and subjected to thematic analysis.

This study emphasizes on improving the overall wellbeing of elderly not only by finding out the improvement strategies on the health care facilities but also by finding strong evidences on benefits of designing their housing and immediate outdoor environment. Therefore, this study recommends future research directions on developing built environments responsive to the aspirations and requirements of aged population which can not only assist the adoption and maintenance of an active lifestyle, but it can also be beneficial to the physical and psychological overall well-being of aged population. More studies on planning urban environmental settings targeting aged population can be beneficial to not only aged people but for people from every age group. Thus, these settings will be advantageous for anyone with varying requirements with changing generational needs and lifestyles from a child to a couple to aged people.

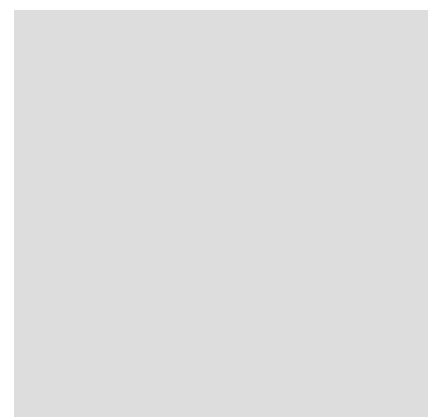
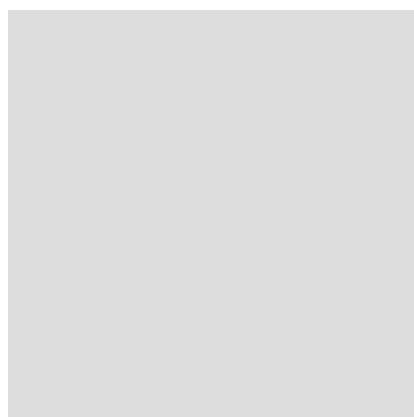
A dark, high-contrast photograph of a man with glasses and a mustache, wearing a suit and tie, speaking at a podium. His right hand is raised in a gesture. The background is dark and out of focus.

# Keynote, Featured & Spotlight Speakers



# Keynote, Featured & Spotlight Speakers

The following Keynote, Featured and Spotlight Speakers will provide a variety of perspectives from different academic and professional backgrounds on the conference theme.







# Plenary Panel I

## Keynote Presentation: Toshiya Hoshino

## Respondents: Haruko Satoh & Michael Anthony C. Vasco

Friday, June 9 | 09:45-10:45 | Prokofiev Hall (2F)

### East Meets West

In the new century, there are many complex challenges facing all of humanity, from tangible concerns such as healthcare, poverty, climate change, food and energy security to conflict prevention, as well as problems of how to address these issues at the global as well as local level. In such a global endeavour, synergy of knowledge and wisdom between different traditions, communities and civilisations is as important as ever in coming up with better solutions. And Kobe could not be a more fitting place in Japan for a start of an important dialogue. Why is this?

Kobe, the host city of the conference, is celebrating 150 years since it opened its doors to the world in 1867, one year before the Meiji Restoration. Kobe has since become one of the leading Asian ports for trade alongside Shanghai, making its name in the early twentieth century as the international face of a modernizing Japan in a regional setting of Kansai that is both historical, innovative and outward-looking. It has one of the oldest Chinese and Indian communities in Japan because of this history, and has been home to many European and Russian (Jewish) émigrés. It has overcome the crippling destruction of its centre and port facilities in the 1995 Kobe-Awaji earthquake.

But there is more. If there is one place in Japan that represents the theme of this conference, "East Meets West", then it is Kobe and the Kansai area, 500 km east of Tokyo and Kanto, that is home to Kyoto, Osaka and Sakai. Kansai represents the inherent strength (*sokojikara*) of Japan as the vortex of the country's cultural, political and commercial activities for nearly 13 centuries. In the old days, Kyoto and the older capital Nara were repositories of the religion, knowledge, technology and civilization that reached Japan by way of the Silk Road. In more recent times, Sakai, one of the oldest port cities near Osaka and the birthplace of Senno Rikyu, the grand tea master, traded with the Spanish and Portuguese. Sakai was the main manufacturer of guns in sixteenth-century Japan. Osaka has been the biggest commerce centre since Edo period Japan, pioneering in futures trade and giving birth to many large trading houses that would provide the social capital for rapid industrialization in the Meiji era. Even though the capital has moved to Tokyo, Kansai continues to flourish in this rich cultural heritage and tradition of innovative thinking, as a place where the East mingles with the West over time and space in ways that Tokyo cannot match.

The symbolism of Kobe and Kansai is important to Japanese identity as it faces its own post-industrial challenges since the economic slump. The key to Japan's renovation and continued relevance to the world is to rediscover and reappraise our own history of modernization with a view to opening up to and engaging with the world in a more dynamic way.

Speaker biographies available on page 26.

# Plenary Panel I: East Meets West

## Keynote Speaker

**Dr Toshiya Hoshino** is presently a Professor at Osaka School of International Public Policy (OSIPP), Osaka University, Japan, and from 2015 to 2016 served as Vice-President (International) at the university. From August 2006 to August 2008, he served as a Minister-Counselor in charge of political affairs at the Permanent Mission of Japan to the United Nations (UN). At the UN, he was a principal advisor to the Chair of the UN Peacebuilding Commission (PBC) when Japan assumed its chairmanship. He graduated from Sophia University, Japan, completed a Master's at the University of Tokyo, and received his doctorate (PhD) from Osaka University.

His previous positions included: Senior Research Fellow at the Japan Institute of International Affairs; Guest Scholar at the School of International and Public Affairs, Columbia University; Fellow at Stanford Japan Center, Stanford University; Visiting Fellow, Woodrow Wilson School, Princeton University; and a Special Assistant (Political Affairs) at the Embassy of Japan to the United States.

He is a specialist in UN peace and security policies (conflict prevention, peacemaking, peacekeeping and peacebuilding), human security and humanitarian issues, security in the Asia-Pacific region, and Japan-US relations. He also serves as a board member of the United Nations Association of Japan, the Japan Association for UNHCR, the Japan Association for United Nations Studies, the Okinawa Peace Cooperation Center, respectively and Vice-President, EU Institute in Japan, Kansai (EUIJ-Kansai), among others.

Dr Toshiya Hoshino is a member of IAFOR's Board of Directors.

## Respondents

**Professor Haruko Satoh** is Specially Appointed Professor at the Graduate School of Engineering Science in charge of CAREN (Osaka University Centre for the Advancement of Research and Education Exchange Networks in Asia) and also lecturer at the Osaka School of International Public Policy (OSIPP), where she runs MEXT Reinventing Japan project on "Peace and Human Security in Asia (PAHSA)" with six Southeast Asian and four Japanese universities. She is also the President of the The Asian Political and International Studies Association (APISA).

In the past she has worked at the Japan Institute of International Affairs (JIIA), Chatham House, and Gaiko Forum. Her interests are primarily in state theory, Japanese nationalism and identity politics. Recent publications include: "Rethinking Security in Japan: In Search of a Post-'Postwar' Narrative" in Jain & Lam (eds.), *Japan's Strategic Challenges in a Changing Regional Environment* (World Scientific, 2012); "Through the Looking-Glass: China's Rise as Seen from Japan", (co-authored with Toshiya Hoshino), *Journal of Asian Public Policy*, Vol. 5, No. 2, pp. 181–198 (July 2012); "Post-3.11 Japan: A Matter of Restoring Trust?", ISPI Analysis No. 83 (December 2011); "Legitimacy Deficit in Japan: The Road to True Popular Sovereignty" in Kane, Loy & Patapan (eds.), *Political Legitimacy in Asia: New Leadership Challenges* (Palgrave Macmillan, 2011), "Japan: Re-engaging with China Meaningfully" in Tang, Li & Acharya (eds.), *Living with China: Regional States and China through Crises and Turning Points*, (Palgrave Macmillan, 2009).

Professor Haruko Satoh is a member of IAFOR's Academic Governing Board and Board of Directors. She is Chair of the Politics, Law & International Relations section of the International Academic Advisory Board.

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**Professor Dr Michael Anthony C. Vasco** obtained his PhD in Philosophy "Summa Cum Laude" at the age of 26 from the University of Santo Tomas in the Philippines. He likewise received his Bachelor of Arts in Philosophy "Cum Laude" at the age of 19 and his Master of Arts in Philosophy "Benemeritus" – equivalent to "Magna Cum Laude" at the age 21, also from UST. In June 1995, aged 22, he became the College Secretary of the UST College of Nursing, making him the youngest academic official of the University at that time. In his stint as a researcher, he has published numerous single-authored research articles in academic journals, book anthologies and conference documents in Philosophy and Philosophy-related publications, even without the benefit of research load units or sabbatical leaves. His research interests include Contemporary European Philosophy, Social and Political Philosophy, Indian Philosophy, Buddhist Philosophy and Comparative Philosophy. As early as 1998, he was already awarded the Silver Series Award for his contribution to research at the University of Santo Tomas. He was also the recipient of the Young Achiever's Award in the field of Graduate Education in 1998, and Outstanding Alumni Award in February 2013 by the Trinity University of Asia (formerly Trinity College of Quezon City). In addition, in 2014 he was awarded the Faculty Excellence Award by the University of Santo Tomas Graduate School for his years of outstanding performance as a Philosophy professor in the said institution.

He served as one among the first group of lecturers in the CHED's first Faculty Development Teacher Training Program for Philosophy teachers in 1997, and one of the major proponents for making the University of Santo Tomas a Center of Excellence for Philosophy, an award given by the Philippine Commission on Higher Education in the year 1999. He also worked as coordinator for the CHED Faculty Development program from 2002 to 2009, and was Public Relations Officer of the Philosophical Association of the Philippines from 2001 to 2003. He served as Faculty Secretary of the UST Graduate School for more than a decade and was Consultant for the Graduate Division of Humanities from 2000 to 2013. As a conference organizer and convenor, he has helped organize five national conferences and three international conferences and has acted as Chair, Adviser or Tribunal member examiner for a total of more than 130 PhD dissertation and MA thesis defences to date.

He holds the Academic Rank Full Professor 2, in the UST Faculty of Arts and Letters and Professorial Lecturer 3 at the UST Graduate School. Born on October 23, 1972, he became one of the youngest Full Professors in June 2004 and one of the youngest Deans in November 2009 at the University of Santo Tomas. During his Deanship, the Faculty of Arts and Letters, of UST was declared a Center of Excellence in Philosophy and Center of Development in Journalism, Communication Arts and Literature by the Philippine Commission on Higher Education.





## Featured Presentation: James W. McNally

Friday, June 9 | 11:15-11:45 | Prokofiev Hall (2F)

### Methodologies for the Collection of Comparative Community Level Public Health Data: Obtaining Powerful and Statistically Meaningful Findings for Small Populations

Recent health emergencies such as the ebola outbreak in 2015 and the current zika virus reflects the pressing need for the rapid and statistically meaningful collection of data, often within small geographic areas. The collection of public health data at the community level is challenging for a number of reasons. Building respondent trust and gaining local support are key, but even when these barriers are overcome the choice of questions and how they are asked is central to the success of a study and to its impact on health improvements and policy change. One of the common problems found in many community level studies is the lack of comparability and the inability to generalize findings beyond the study area. While interesting and useful information is often obtained, translating this information into a framework that facilitates policy impact often proves difficult due to a lack of comparability. The NACDA Program on Aging has been promoting a methodology for overcoming the challenges of generalizability and comparability that has been successfully employed in several small area studies of public health and healthcare unitization. The presentation will describe this methodology and provide examples of its efficacy in real-world research situations. The presentation will provide supporting materials to guide interested users in applying this approach for their own research specializations. This approach is flexible and works across languages and research disciplines so it can be applied in a variety of public health studies, including RAPID AREA ANALYSIS (RAP) situations.

### Biography

**Dr James W. McNally** is the Director of the NACDA Program on Aging, a data archive containing over 1,500 studies related to health and the aging lifecourse. He currently does methodological research on the improvement and enhancement of secondary research data and has been cited as an expert authority on data imputation. Dr McNally has directed the NACDA Program on Aging since 1998 and has seen the archive significantly increase its holdings with a growing collection of seminal studies on the aging lifecourse, health, retirement and international aspects of aging. He has spent much of his career addressing methodological issues with a specific focus on specialized application of incomplete or deficient data and the enhancement of secondary data for research applications. Dr McNally has also worked extensively on issues related to international aging and changing perspectives on the role of family support in the later stages of the aging lifecourse.

Dr McNally is a Vice-President of IAFOR. He is Chair of the Social Sciences & Sustainability division of the International Academic Advisory Board.



## Plenary Panel Presentation II: James W. McNally & Hiroshi Ishida

Friday, June 9 | 11:45-12:15 | Prokofiev Hall (2F)

### East Meets West – Healthy, Active and Beautiful Aging in Asia

How any society deals with aging can be a contentious issue, one on which questions of culture, convenience and even expedience are brought to bear. Economic prosperity and peace in developed countries has led to unprecedented levels of healthcare provision for a population that, as a result, is living far longer. Coupled with falling birthrates, Western Europe and Japan are witnessing demographic changes that bring unparalleled challenges but also unexpected opportunities for aging populations, as innovations and discoveries help people lead active and healthy lives.

This panel will provide an overview of the demographic situation in different countries and cultures in Asia and beyond to compare and contrast outlooks for the aged. It will also examine the concepts of healthy, active and beautiful aging.

### Biographies

**Dr Hiroshi Ishida** is Professor of Sociology at the Institute of Social Sciences, University of Tokyo, Japan. He served as the Director of the Institute of Social Sciences and the Director of the Center of Social Research and Data Archives at the University of Tokyo from 2012 to 2015. He received his PhD in sociology from Harvard University, conducted post-doctoral research at Nuffield College and St Antony's College, University of Oxford, and held positions of Assistant and Associate Professor of Sociology at Columbia University. He was a Visiting Professor of Sociology at the University of Michigan and a Visiting Fellow of Sociology at Yale University. Professor Ishida's research interests include comparative social stratification and mobility, school-to-work transition, and social inequality over the life course. He is the author of *Social Mobility in Contemporary Japan* (Stanford University Press) and the co-editor with David Slater of *Social Class in Contemporary Japan* (Routledge). His work has been published in a number of journals and edited volumes, including *American Journal of Sociology*, *American Sociological Review*, *British Journal of Sociology*, *European Sociological Review*, and *Japanese Sociological Review*.

Professor Ishida was the president of the Japanese Association of Mathematical Sociology from 2011 to 2013, and currently serves as the secretary/treasurer of the Research Committee on Social Stratification of the International Sociological Association. From 2005 to 2010, he was the editor-in-chief of *Social Science Japan Journal*, an international journal on social science research on Japan published by Oxford University Press. He is the principal investigator of the Japanese Life Course Panel Surveys, funded by the Japan Society for the Promotion of Science. He presently serves on the international editorial board of several journals, including *British Journal of Sociology*, *European Sociological Review*, and *Social Forces*. He is currently the Interuniversity Consortium for Political and Social Research (ICPSR) Official Representative for the University of Tokyo.

**Dr James W. McNally's biography is available on page 27.**





## Featured Presentation: Philip Sugai

Friday, June 9 | 14:00-14:30 | Prokofiev Hall (2F)

### Establishing a Value Mindset

The concept of value has been at the heart of the definition of marketing for more than a decade. Yet, while assessment models do exist for specific stakeholder or value actors (i.e. Woodruff, 1997; Kim & Park, 2002) or a combination of these such as the Triple Bottom Line (c.f. Elkinton, 1997), none of the existing aggregate models are complete in terms of assessing the value impact of all value actors identified within the current definition of marketing by the AMA, which includes customers, clients, partners and society. Additionally, most of the existing measurement tools use different criteria to measure value, making a combination of these in their current form extremely difficult if not impossible for any marketing practitioner. This has led to the current dilemma in the field of marketing, in that researchers and practitioners understand theoretically what marketing "is", but have not yet formulated a robust model or tool that enables them to effectively measure and capture the true value impact of any product or service today. The purpose of this presentation is to outline the definition of marketing value and outline a path forward towards the creation of an aggregate model for value measurement and management that can be easily applied by any business or government entity.

### Biography

**Dr Philip Sugai** joined the Global MBA faculty at Doshisha Business School, Japan, as a full-time faculty member in September 2013. He currently teaches Marketing, eMarketing, Marketing Research, and Sustainable & Responsible Marketing. Dr Sugai is also a Visiting Professor at Stanford University, where he teaches an undergraduate course on Innovation in Japan at the Stanford Overseas campus in Kyoto. Prior to joining the Doshisha University faculty, Dr Sugai taught at the International University of Japan in Niigata from January 2002, where he also served as Associate Dean and Dean of the IUJ Business School for six years.

Dr Sugai is the author of two books, *The Value Plan* and *The Six Immutable Laws of Mobile Business* (John Wiley & Sons), and has published case studies on KITKAT Japan, Australia's AGL, Hatsune Miku and Walt Disney Internet Group, all of which are available through the Harvard Business School Publishing case study portal. He received his doctorate from Waseda University's Graduate School of Global Information and Telecommunications Studies, and his MBA in Marketing and Operations Management from New York University's Stern School of Business. He has worked as a marketing executive at American Express, Muze and Lightningcast, and currently serves as a marketing advisor and marketing strategy consultant to companies both in Japan and globally.





## Spotlight Presentation: Maxime Jaffré

Friday, June 9 | 14:30-15:00 | Prokofiev Hall (2F)

### Can Data Science Do Without the Field Survey? Developing Innovative Statistical and Cartographic Methodologies Involving Small and Big Data Analyses in Social Sciences

Since the birth of Social Sciences, survey methodologies have encountered increasing developments in collecting data. From the "Essay on the Theory of Science" by Max Weber, to the *Rules of the Sociological Method* by Emile Durkheim, sociological and anthropological rules and know-hows successfully developed strong methodological principles that have proved their worth over time. Today, it seems to be quite difficult to revert these principles and change the methodological rules implemented by Social Sciences. Yet, the new digital technologies and the cultural practices generated by them are nowadays creating a serious imbalance for the survey methodologies developed by Social Sciences. While Social Sciences advocate "field" surveys conducted as close as possible to individuals, how can researchers collect data from digital cultural practices that are produced, in any case, from the private sphere? And how can socio-economic characteristics of individuals be defined when most of our practices are becoming digitalised? In other words, Social Sciences are today running the real risk of losing contact with the most contemporary cultural practices if they refuse to change methodological paradigm. In recent years, new technologies have encountered real progress in data extraction and analysis. New software such as EthnosData and Net-Survey now allow researchers to practice data mining on the Internet and collect quite considerable and unprecedented amounts of data for research in Social Sciences. These new tools represent a real added value for the analysis of digital practices or for carrying out surveys via the Internet. By combining methodologies implemented by Social Sciences and new technologies, this paper aims to present innovative statistical and cartographic methodologies involving Small and Big Data analyses applied to research in Social Sciences.

### Biography

**Dr Maxime Jaffré** is Assistant Professor in Sociology of Culture at the Ecole des Hautes Etudes en Sciences Sociales (EHESS). His researches focus on issues of deterritorialisations and cultural recompositions. He is also interested in processes of institutionalisation of culture and in issues of implementation of cultural practices in the urban space. Dr Jaffré has also worked at the University of Chicago with Terry Nichols Clark, with whom he participated in the elaboration of a Cultural Mapping of Paris Métropole, on the behalf of the City of Paris. Dr Jaffré is now developing innovative statistical and cartographic methodologies involving Small and Big Data data analysis applied to urban and institutional issues. His current researches aims to determine the economic impacts of culture on cities, and on urban mobilities. Dr Jaffré has also been a consultant for the UNESCO at the Cultural Policy Division.





# Spotlight Presentation: Guo-qiang Liu

Friday, June 9 | 15:00-15:30 | Prokofiev Hall (2F)

## **Xinhua News Agency's Coverage of the Kunming Railway Station Attack in the Context of Reshaping China's National Identity**

Through a comparative framing analysis of print media coverage of the Kunming Railway Station incident in March 2014, this article examines the Chinese state media's attempted projection of a "new" China to the outside world. This projection is occurring in the context of the nation's changing international status as the result of its rapid economic rise. It is observed that by calling this incident a terror attack, and even "China's 9/11", and by reporting condemnations and condolences from other countries, China clearly identifies itself as a victim of terror and expresses a strong wish to be recognised as a member of the mainstream international community. It is argued that Xinhua's projection of China in its coverage reflects a new national identity that China is trying to develop, while legitimising its crackdown on Uyghur "terrorists". However, the comparison with elite media sources in the West shows that Western governments and media may be reluctant to embrace China fully as a new member of the "international community". While the Chinese government attempted to use the incident as a way of leveraging its position and status within the "international community", and Xinhua supported this aim, the Western media appears to have quickly forgotten the incident and seems not to have supported China's claims.

### **Biography**

**Dr Guo-qiang Liu** is Associate Professor in Chinese Studies in the School of Humanities and Social Sciences at Deakin University in Australia. His interests include language and identity, language policy and planning, and China's reconstruction of its national identity.



## Spotlight Presentation: Jane Singer

Saturday, June 10 | 17:00-17:30 | Room 501 (5F)

### Applying a Rights-Based Approach in Investigating Repatriation of Fukushima's Nuclear Refugees

The complex human and natural disaster – earthquake, tsunami and nuclear meltdown – that occurred on March 11–13, 2011, caused the evacuation of 180,000 residents of Fukushima prefecture, Japan. Today, more than 80,000 compulsory and voluntary evacuees remain outside their original communities. For some of the original 11 affected communities the evacuation order has been lifted after extensive decontamination efforts, and residents are being urged to return. Yet despite government privileging of rapid repatriation, as of January 2017 only 13% of the evacuees have returned to the five communities where evacuation orders have been lifted. Although residents are assured that health risks of repatriation are negligible, expressed concerns about health and safety issues and economic and social community sustainability, along with eroded public trust in official assurances, have contributed to few returning, especially young families. Few studies have been published examining the long-term economic, social and policy implications of the Fukushima evacuation experience and future prospects for repatriation. Drawing on interviews with compulsory and voluntary evacuees and focus group discussions with evacuees who have already returned to original communities, this paper applies a rights-based framework to discuss repatriation and engagement in re-articulation of long-fragmented communities.

### Biography

**Dr Jane Singer** is Associate Professor at the Graduate School of Global Environmental Studies (GSGES), Kyoto University, Japan. She has a Master of International Affairs degree specialising in economic and political development from the School of International and Public Affairs, Columbia University, New York, and a PhD from GSGES, Kyoto University, focusing on development-forced displacement and resettlement. Her principal research focus is migration and displacement, with recent research investigating dam-displaced ethnic minority communities in central Vietnam and community resilience for government-sponsored transmigrants in Sumatra, Indonesia. Her other principal research focus is campus sustainability and tertiary education for sustainability. Her recent publications include two edited books, *Global Implications of Development, Disasters and Climate Change: Responses to Displacement from Asia Pacific* (2015, with Susanna Price) and *Educating for Sustainability in Japan: Fostering Resilient Communities after the Triple Disaster* (2016, with Tracey Gannon, Fumiko Noguchi and Yoko Mochizuki), both published by Routledge.





# Spotlight Workshop Presentation: Kamilah Majied

Saturday, June 10 | 17:45-18:45 | Room 501 (5F)

## Using Mindfulness Practices to Improve Mental Health and Address Unconscious Bias

This workshop will guide participants through developing the skills to use mindfulness-based interventions to improve mental health and facilitate cross-cultural conflict resolution. The workshop will open with an overview of the broad array of international research that identifies the positive impact of mindfulness-based practices on mental health and social functioning. There will also be an overview of the literature and best practices regarding mindfulness-based conflict resolution and mindfulness-based social justice action. The workshop will contain several didactic discussions of various types of applied mindfulness practice and then guide participants through experiential activities that allow them to practice using the techniques. For example, the presenter will discuss the clinical literature and mental health practice research and describe how mindfulness is used to become aware of emotions that may be slightly outside of conscious cognition. Then the presenter will lead experiential exercises that guide participants through raising their emotional awareness and managing emotional material through diaphragmatic breathing and other mindfulness techniques. There will be an overview of how mindfulness can be used to gain awareness of bias, prejudice, and discriminatory ideas, and participants will then be guided through an exercise that allows them to explore their unconscious bias using mindfulness practice. Finally, there will be an overview of the process by which mindfulness-based interventions are used to facilitate cross-cultural conflict resolution, and participants will have an opportunity to observe and practice this process as led by the presenter.

### Biography

**Dr Kamilah Majied** is a mental health clinician, researcher, academician, consultant and internationally recognised expert on the impact of culture and social oppression on mental health and behavioral health. Her scholarship focuses on racism, ageism, xenophobia and other forms of social oppression with the goal of eliminating the effect of these on individual, familial, organizational and community wellness. Her clinical work centers on using mindfulness-based cognitive therapy to address a range of mental health needs. Dr Majied is an Associate Professor of Social Work at Howard University in Washington, DC, USA.





## **Shodō Workshop (Japanese Calligraphy)**

**Saturday, June 10 | 12:00-13:00 | Room 504 (5F)**

A continuing feature of IAFOR's Kobe-based conferences is the showcasing of the arts and culture of Japan. As part of a workshop provided by the Japanese calligraphy group Wa, conference attendees have the opportunity to gain knowledge and practical experience of the Japanese art of calligraphy through an informative demonstration. After the demonstration, delegates will have the opportunity to try their hand at calligraphy, and write their own names in Japanese.



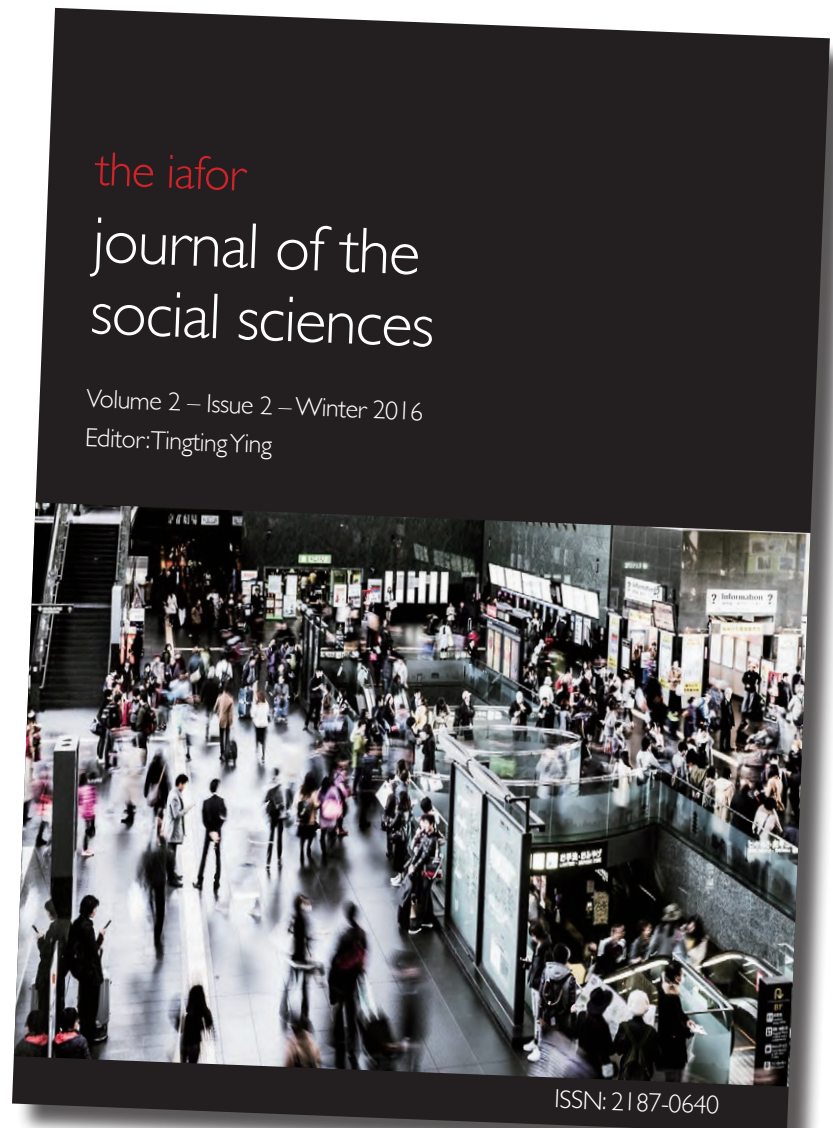


# Friday June 9



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# Friday Plenary Session

## 09:30-15:30 | Prokofiev Hall (2F)

- 08:30-09:30 Conference Registration | Open Studio (2F)  
Coffee & tea will be served from 09:00
- 09:30-09:45 Announcements & Welcome Address | Prokofiev Hall (2F)
- 09:45-10:45 Plenary Panel Presentation I | Prokofiev Hall (2F)**  
*East Meets West*  
**Keynote Presentation:** Toshiya Hoshino  
**Respondents:** Haruko Satoh, Osaka University, Japan and  
Michael Anthony C. Vasco, University of Santo Tomas, The Philippines
- 10:45-11:15 Coffee Break
- 11:15-11:45 Featured Presentation | Prokofiev Hall (2F)**  
*Methodologies for the Collection of Comparative Community Level Public Health Data: Obtaining Powerful and Statistically Meaningful Findings for Small Populations*  
James W. McNally, University of Michigan, USA
- 11:45-12:15 Plenary Panel Presentation II | Prokofiev Hall (2F)**  
*Easts Meets West – Healthy, Active and Beautiful Aging in Asia*  
Hiroshi Ishida, University of Tokyo, Japan  
James W. McNally, University of Michigan, USA
- 12:15-12:30 IAFOR Documentary Photography Award  
2016 Winners' Screening followed by Conference Photograph
- 12:30-14:00 Lunch
- 14:00-14:30 Featured Presentation | Prokofiev Hall (2F)**  
*Establishing a Value Mindset*  
Philip Sugai, Doshisha Business School, Japan
- 14:30-15:00 Spotlight Presentation | Prokofiev Hall (2F)**  
*Can Data Science Do Without the Field Survey? Developing Innovative Statistical and Cartographic Methodologies Involving Small and Big Data Analyses in Social Sciences*  
Maxime Jaffré, Ecole des Hautes Etudes en Sciences Sociales (EHESS), France
- 15:00-15:30 Spotlight Presentation | Prokofiev Hall (2F)**  
*Xinhua News Agency's Coverage of the Kunming Railway Station Attack in the Context of Reshaping China's National Identity*  
Guo-qiang Liu, Deakin University, Australia

# Friday Poster Session I

## 15:45-16:45 | Room 504 (5F)

### Sustainability, Energy & the Environment

#### 35522 | Room 504 (5F)

##### *The Coupling Effect Analysis Between Economic Growth, Industrial Structure and Environmental Pollution in China*

Yunxia Tan, China University of Geosciences (Wuhan), China  
Jing Yu, China University of Geosciences (Wuhan), China  
Yongbao Jin, China University of Geosciences (Wuhan), China  
Jing Zhang, China University of Geosciences (Wuhan), China

It is important to explore the coupling relationship between economic growth, industrial structure and environmental pollution. In numerous analysis frameworks used for studying economic growth, industrial structure and environmental pollution, many scholars verified whether the situation of local area in accordance with the Kuznets curve, the obtained results were always diverse. Dividing China into 3 regions, eastern, central and western, the paper studies the relationship between economic growth, industrial structure and environmental pollution by using coupling coordination degree model to analysis 28 provinces and cities' panel data in 2000–2016. The study found that the economic and environmental development in most prefectural units are still at a lower level of coupling and coordination. There are significant disparities in coupling and coordinating degree between eastern coastal areas and western inner areas. In addition, economic growth has a significantly positive impetus to environmental pollution, while the improvement of economic growth comprehensive level leads to the deterioration of environmental conditions; China's current industrial structure is in good condition and has crossed the inflection point of the inverted U-shaped curve into the stage industrial structure to improve environment pollution; economic growth has a bigger direct positive effect on environmental pollution and it also indirectly affects environmental pollution by influencing industrial structure, technological progress and population quality. The coefficient of industrial structure is the largest among the indirect path, which means industrial structure is the most effective way to improve environmental pollution. Finally, it proposes some related suggestions based on the above conclusions.

#### 35229 | Room 504 (5F)

##### *Future Development Trends of Green Refrigerant*

Chun-Wei Chen, Instrument Technology Research Center – National Applied Research Laboratories, Taiwan  
Yu-Wei Lin, Instrument Technology Research Center – National Applied Research Laboratories, Taiwan

The subject discussed in this study is the general development trend of green refrigerants. The results of this study are used to find the optimal conditions for R&D technology for the studied green refrigerants based on this trend. The conclusions from this study are as follows: 1) The future development of green refrigerants should be based on the four explicated levels – "technical characteristics, ecological protection, economic benefit, and the environment" – and the 26 factors with the four explicated levels, in order to diversify the future development of green refrigerants, as well as to assist in developing more competitive and environmentally-friendly refrigerants; 2) The conclusion obtained from using the Fuzzy TOPSIS analysis model, and from a group of experts and scholars of different experiences and expertise discussing and assessing refrigerant technology development, is that natural refrigerant technology is the preferred method. The order of preference after natural refrigerant technology is: the HC component refrigerant development technology, the HFC mixed component refrigerant development technology, and lastly the nanometer refrigerant development technology. These results show that experts and scholars believe that natural refrigerant development technology is the best solution for green refrigerant technology development.

#### 33638 | Room 504 (5F)

##### *The Study of Numerical Evaluation and Onboard SCR Catalytic Combustion of Marine Diesel Engine's Emission Combustion*

Reui-Kuo Lin, Taipei College of Maritime Technology, Taiwan  
Shun-Feng Tsai, National Taiwan Ocean University, Taiwan

With the extreme weather in recent years, the global phenomenon of climate change and the warming of the Earth getting increasingly higher, helping to reduce emissions and air pollutants has become the target of national efforts. Because diesel engines with high thermal efficiency are widely used in the generators, vehicles and merchant ships and other power systems, marine diesel engines most people pay attention to pollution in addition to visible particulate pollutants (PM), but it belongs to the NO<sub>x</sub>, because the gas is toxic but nitrogen oxide and nitrogen oxide emissions from diesel engines account for over 44% of all mobile sources, therefore the world's major diesel engine manufacturers who did not actively involved in improving the technology this pollutant. The research project will exhaust in chemical reduction mode, with additional urea injection exhaust pipe through computational fluid dynamics and numerical simulation methods for diesel, ammonia NH<sub>3</sub> or ammonia as a reducing agent selection of catalytic combustion technology (SCR), the use of a catalyst catalyzing the reduction of NO<sub>x</sub> into harmless nitrogen N<sub>2</sub> and H<sub>2</sub>O, build a new type of exhaust gas NO<sub>x</sub> emission reduction device, effectively reduce marine diesel NO<sub>x</sub> emissions of pollutants engine to comply with the provisions of the International Maritime Organization (IMO) on the prevention of air pollution from ships in NO<sub>x</sub> constitution norms.



# Friday Poster Session I

## 15:45-16:45 | Room 504 (5F)

### Sustainability, Energy & the Environment

**37332 | Room 504 (5F)**

#### *Mesoporous NiCo<sub>2</sub>O<sub>4</sub> and NiCo<sub>2</sub>S<sub>4</sub> Submicron-Polyhedron Architecture from Molecular Design for Efficient Pseudocapacitive Energy Storage*

Yu Liu, Curtin University, Australia  
Zongping Shao, Curtin University, Australia  
Moses Tade, Curtin University, Australia

Spinel-type NiCo<sub>2</sub>O<sub>4</sub> (NCO) and NiCo<sub>2</sub>S<sub>4</sub> (NCS) polyhedron architecture with the size of around 500 nm and rich mesopores of 1–2 nm in diameter are prepared facilely by molecular design of Ni and Co into polyhedron-shaped zeolitic imidazolate frameworks (ZIFs) as solid precursors. Both as-prepared NCO and NCS nanostructures exhibit excellent pseudocapacitance and stability as electrodes in supercapacitors. In particular, the exchange of O<sup>2-</sup> in the lattice of NCO with S<sup>2-</sup> obviously improves the electrochemical performance. NCS shows a highly attractive capacitance of 1296 F g<sup>-1</sup> at current density of 1 A g<sup>-1</sup>, ultrahigh rate capability with 93.2% capacitance retention at 10 A g<sup>-1</sup>, and excellent cycling stability with capacitance retention of 94.5 % after cycling at 1 A g<sup>-1</sup> for 6000 times. Asymmetric supercapacitor with NCS negative electrode and active carbon positive electrode delivers very attractive energy density of 44.8 Wh kg<sup>-1</sup> at power density 794.5 W kg<sup>-1</sup>, and a favourable energy density of 37.7 Wh kg<sup>-1</sup> is still achieved at a high power density of 7981.1 W kg<sup>-1</sup>. The specific mesoporous polyhedron architecture contributes significantly to the outstanding electrochemical performance of both NCO and NCS for capacitive energy storage.

**37416 | Room 504 (5F)**

#### *Sustainable Energy Management in University: Energy Conservation and Renewable Energy Usage*

Kittinut Kaewthong, King Mongkut's University of Technology Thonburi, Thailand  
Thanakarn Khumphai, King Mongkut's University of Technology Thonburi, Thailand  
Amornthep Kumsuk, King Mongkut's University of Technology Thonburi, Thailand

KMUTT is one of the Science and Technology Universities in Thailand, which consume high energy according to their main activities in teaching and research. A sustainable energy management system has been developed within KMUTT according to the energy and climate change policy and renewable usage policy that follows the best practices on energy conservation concept and standard practices. The system, procedures and manuals have been developed and focused on electrical & water conservation, renewable energy usage and greenhouse gas emission reduction. The developed system has been implemented for all in KMUTT with the Train of the Trainer program, promotional activities, preparation and hands-on training for technical to KMUTT Energy working group. The system evaluation has been done for one year implementation (Jan–Dec 2016). The results showed 0.24%, 5.0% and 20.41% reductions on electrical usage, water usage and greenhouse gas emission respectively, with 2.37% renewable energy usage in KMUTT. The results achieved and showed the sustainable energy management within KMUTT can help to decrease the energy and environmental impacts and maintain a sustainable management for all students, staff and public.

**35223 | Room 504 (5F)**

#### *Steady-State Inherent Operational Characteristics of a Fan Coil Unit (FCU) under Variable Supply Flows Operation*

Ming-Yin Chan, The Hong Kong Polytechnic University, Hong Kong

Chilled water based Fan Coil Unit (FCU) Air Conditioning (A/C) systems are commonly used in large buildings while the ventilation load can be separately dealt with. FCUs have to perform simultaneous cooling and dehumidification. Following their successful study of the operational characteristics of Direct Expansion (DX) A/C systems, the presenters wish to further study the inherent steady-state operational characteristics of a FCU under variable supply flows operation. An experimental FCU system will be established and the steady-state inherent operational characteristics of the experimental FCU under a variable flow rate chilled water supply at different constant temperatures and a variable supply air flow rate, will be experimentally and numerically studied. The methodology to be adopted in this project follows that used previously when studying the operational characteristics of DX A/C systems. The long-term impact of the proposed project is that a novel strategy for simultaneously controlling both indoor air temperature and humidity using FCU based air conditioning will be developed for the near future, so as to provide building users with better thermal comfort because of the improved humidity control, at a low level of energy consumption. The project outcomes will be applicable not only to Hong Kong, but to many other parts of the world also.

**35057 | Room 504 (5F)**

#### *Feasibility Study on Improving Pollution Degradation of Free Water Surface Flow Constructed Wetlands by Artificial Aeration and Bio-Gravel Wall*

Jih Ming Chyan, Chia Nan University of Pharmacy and Science, Taiwan  
Ming Hsiu Yu, Chia Nan University of Pharmacy and Science, Taiwan  
I. Ming Chen, Chia Nan University of Pharmacy and Science, Taiwan

Constructed wetlands (CWs) have been worldwide applied in controlling water pollution because of their low construction cost, easy operation and maintenance. However, insufficient dissolved oxygen (DO) supply results in low pollution removal performance which establishes barriers for further developments. In this work, artificial aeration was established in-tank and isolated from the free surface flow (FWS) CW by a bio-gravel wall (BGW) which improved nitrification and damped the turbulence induced by aeration. A FWS CW (CW-A) was established as a control system whose experimental results could be compared to the one (CW-B) with aeration and BGW. Both system operated under the same experimental conditions. The emergent plants, cattail, were planted in FWS CWs. The inflow came from the sewage system of university campus and CWs was operate with a higher hydraulic loading, 0.30 m/d. According to experimental results, averaged DO in CW-A maintained 0.15 mg/L; through a specially designed aeration system in CW-B, DO raised to 3.0 mg/L. Due low influent concentration of averaged biochemical oxygen demand, 4.23 mg/L, poor removal, 17.1% (p>0.05), was observed in CW-A, however, it increased to 45.4 % (p<0.05) when the CW system was added aeration and BGW. Significant improvement was also found in the removals of ammonia-nitrogen which were 42.5% (p<0.05) and 16.4% (p<0.05) with and without aeration and BGW, respectively. No significantly positive effect was resulted in total phosphorous removal performance. From obtained results, it concluded that, even in low pollution environment, aeration and BGW could effectively improve pollution degradation performances of SSF CW.

# Friday Poster Session I

## 15:45-16:45 | Room 504 (5F)

### Sustainability, Energy & the Environment

#### 35231 | Room 504 (5F)

##### *Unmanned Aerial Remote Sensing System (UARSS) Derived Normalized Difference Vegetation Index (NDVI) To Soil Moisture Mapping*

Tung-Ching Su, National Quemoy University, Taiwan

Satellite remote sensing systems have been widely applied to soil moisture monitoring but are unsuitably applied to that of small areas, which merely cover several hectares, due to their low spatial or temporal resolutions. In order to address the soil moisture mapping of the small areas in Kinmen, Taiwan, a multispectral sensor carried on an unmanned aerial vehicle (UAV) were adopted to derive the thematic maps (0.2 m resolution) of Normalized Difference Vegetation Index (NDVI). In this research, a total of 12 in situ sampling points was schemed for a monthly data acquisition of soil moistures at two depths, including 10 cm and 20 cm, and NDVI to establish an empirical model between soil moisture and NDVI. Before the empirical model establishment, a pre-processing of relative radiance correction is necessary for the digital number adjustment of the multi-temporal UAV images. Finally, the performance of the established empirical model in soil moisture estimation is also evaluated in this research.

#### 35526 | Room 504 (5F)

##### *The Study of Design Elements and Users' Behavior in Public Space: A Case Study of Pattaya Beach Road Public Space*

Akharapon Thanyagaset, Silpakorn University, Thailand

This research aimed to investigate the user's behavior of the public open space, a case study of Pattaya beachfront public space, Chonburi province, the second most visited city in Thailand after Bangkok. By studying the characteristics of landscape design elements, activities and the surrounding context to analyze the relationship of the various factors that affect the use of the area, to find out the design guidelines to improve the physical design of Pattaya beachfront public space based on the behavior and needs of users. The Post-Occupancy Evaluation methods were used to collect and analyze data by observation, interview and review the literature. The observations are divided into two parts: first, the overall physical and usage character of the whole area; the second part is the user's behavior in the space, which was classified into 3 types, plazas, walkways and memorial place. Next, analysis of the current usage conditions of each area, positive and negative aspects and comparison with the public open space design guidelines was undertaken. The results showed that during the weekend at 4pm–6pm is the most active time of Pattaya beachfront public space. The users, both Thai people and foreigners, intensively use it for many kinds of recreational activity. The main application is the walkway between the north and south of Pattaya beach. It is also a space for recreations. The factors that promote usage are the activities of the surrounding context Pattaya Bay, and physical landscape design elements include: accessibility, the beautiful scenery, daylight and shading, appropriate dimension of space, security and the natural atmosphere.

#### 35923 | Room 504 (5F)

##### *Analysis of Land Use Classification and Contamination Source for Soil-Contaminated Site in Korea*

Kyung Hee Shin, Korea Environment Institute, South Korea

Hyeon Kyu Lee, Korea Environment Institute, South Korea

As types of industry and patterns of land use have been diversified, the necessity for systematic management for contamination prevention has increased. This study investigated the features of soil-contaminated site in Korea. The information about contaminants, pollutant concentration, source of contamination (facilities) and land use classification was analyzed. A total of 300 sites were selected and land use classification was through the Land Use Regulation Information System (LURIS) in Korea. LURIS provides the land use classification which is designated by the Act on Planning and Use of National Territory at specific site. As a result, most of the sites were used as gas stations, small-scale factories, etc. The distribution based on the classification of use area is shown as follows: residential areas (35.1%), industrial areas (26.0%), green areas (16.6%), commercial areas (11.3%), managed areas (10.3%), natural environment conservation areas (0.3%), agricultural areas (0.3%). As regards the rate of pollutants and the types of pollutant from the sites, over 50% of the examined lands were contaminated by TPH (Total Petroleum Hydrocarbon). BTEX (35%), Zinc (35%), Copper (16.67%) follow after TPH as the pollutants. In addition, site-specific information such as organic content, conductivity, topography and groundwater net charge was collected. These analyses about previously contaminated site could provide useful implications in assessing soil or groundwater vulnerability and arranging the management policy. (This study was funded by a grant from the GAIA project (2016000560002), Korea Environmental Industry and Technology Institute, Republic of Korea.)

#### 35172 | Room 504 (5F)

##### *Treatment of Wastewater Contaminated with Water-Based Varnish and Glue Using Wasted Chemical and Materials in Coating/Lamination Plant*

Suchapa Netpradit, King Mongkut's University of Technology Thonburi, Thailand

Areeya Poolsawat, King Mongkut's University of Technology Thonburi, Thailand

Utaitip Noibut, King Mongkut's University of Technology Thonburi, Thailand

Varnish coating is usually applied to protect the surface and adds to the value of printed products. Water-based coatings have become popular in the printing industry because they are environmentally friendly and odorless. However, a high volume of wastewater from many coating plants needs to be treated with low cost. The objectives are to survey the source of wastewater in a coating plant and to find the proper technique of wastewater treatment by using their wasted materials. Two sources of contaminant, water-based varnish and water-based glue, in wastewater were mixed in various ratios to determine the results of coagulation and adsorption. The results showed that 45 L of wastewater mixing from 2 sources (1:1) could be treated by adding 250 ml of wasted ferric chloride solution, stirring for 1 minute and leaving for sedimentation. The sludge was separated by filtering with the wasted mesh cloth and dried by sun. The remaining color of water was further removed through the adsorption column containing the wasted granule activated carbon. The water qualities was detected for chemical oxygen demand (COD), total dissolved solids (TDS), suspended solid (SS) and pH value. After coagulation process, COD, TDS and SS were reduced from 58,902, 30,424 and 772 mg/L to 7,384, 3,192 and 54 mg/L, respectively, and pH was decreased from 7.6 to 5. After adsorption process, COD, TDS and SS were reduced to 23, 597.3 and 6.6 mg/L, respectively, and pH was increased to 7.13. The qualities of treated water were accepted under standard criterion of industrial effluent.

# Friday Poster Session I

## 15:45-16:45 | Room 504 (5F)

### Sustainability, Energy & the Environment

**36101 | Room 504 (5F)**

#### *Synthesized Silica from Rice Husk for Anti-Slip Overprint Coating*

Nitus Tipsotnaiyana, King Mongkut's University of Technology, Thailand

Thailand is among the top 10 rice exporters that have produced more than 30 million tons of rice in order to serve domestic and worldwide consumption. In the process of rice milling, more than 10 million tons of rice husk as agricultural waste are disposed. Since rice husk is enriched with abundant silica (SiO<sub>2</sub>), this study aims to reflux silica from rice husk by 2M hydrochloric acid (HCl) for 120 min. The results yielded refluxed silica whose purity was 98.7% and had amorphous structure. The silica powder was measured color by a spectrophotometer according following printing standard (ISO12647-1), the color measurement (CIE L\*a\*b\*) indicated 94.79±0.48±1.24 (white color), whiteness and color difference ( $\Delta E$ ) were 84.85, 3.28, respectively. Particle size of silica was analyzed by "Image Plus Pro" and exhibited a uniform size of 3–5  $\mu$ m. The synthesized silica from rice husk was used as an anti-slip coating material for the improvement friction and smoothness on white kraft papers. The coating was prepared by a water-based varnish of acrylic resin mixed with the synthesized silica from rice husk at different ratios of 0%, 0.5%, 1.0%, and 1.5% on the weight basis. The varnished with 1.0% silica from rice husk displayed the highest friction and printing quality was not changed.

**36260 | Room 504 (5F)**

#### *Determination of the Biodegradability of Thermoplastic Cassava Starch Reinforced by Natural Fibers*

Tanatorn Tongsumrith, King Mongkut's University of Technology Thonburi, Thailand

Susan Selke, Michigan State University, USA

A biopolymer composite, thermoplastic cassava starch (TPCS), was reinforced with natural fibers and glycerol as a plasticizer. Paper fiber and vetiver fiber were used as a reinforcing material. In this study, the objective was to evaluate and to estimate the biodegradability of the fabricated thermoplastic cassava starch reinforced by natural fibers using an in-house direct measurement respirometric system (DMR) under simulated composting conditions. Biodegradation of thermoplastic cassava starch biocomposites was examined in a simulated aerobic composting environment using a direct measurement respirometric (DMR) system in accordance with the ASTM D5338 and ISO 14855 standards. The thermoplastic cassava starch reinforced by vetiver fiber was easily biodegraded and almost all samples reached above 70% mineralization in MSU compost. Differences in biodegradation rates were attributed to the intrinsic properties of the compost such as moisture content, temperature, pH and nutrients for the microbes. Moreover, the polymer characteristics themselves play an important role in degradation. In addition, a mathematical model for biodegradability correlated to the component proportions of inputs was obtained. The ANOVA test showed that the model was sufficiently reliable to be useful in designing of the composites.

**37384 | Room 504 (5F)**

#### *Hazardous Waste Management System in Kmutt, Thailand*

Suchada Chaisawadi, King Mongkut's University of Technology Thonburi, Thailand

Aranya Udomittipong, King Mongkut's University of Technology Thonburi, Thailand

Thanakarn Kumchai, King Mongkut's University of Technology Thonburi, Thailand

To decrease the environmental pollution and minimize the risk of students, staff and public, hazardous waste management was set up within King Mongkut's University of Technology Thonburi (KMUTT) in 2005, with the first revision in 2010, and aims to play an important role in maintaining a safe and environmentally responsible university. The system, procedures and manuals for the hazardous waste management were developed according to the Green University policy and standard practices. In this system, the hazardous wastes were separated into liquid and solid waste, and the liquid waste was separated into 18 categories according to storage and treatment. The solid waste was separated into 5 categories according to physical properties. The system has been implemented for all laboratories within KMUTT. Hands-on training for all laboratory staff has been provided. The system implementation showed the hazardous wastes generated for one year (Jan 2016 – Dec 2016) were 9,845 liters of liquid waste and 2,950 kilograms of solid waste. All laboratories in KMUTT have been successfully operated under the developed system. The system evaluation has been done and shown the implementation requires the cooperation and support of students and staff. This management system is now ready to expand to other educational institutions as a model for hazardous waste management. This paper describes the study and implementation experience on hazardous waste management system in a Thailand university. As results of this study, hazardous waste management within KMUTT can help to decrease the environmental impacts and maintain a sustainable management for all staff and public.

**37233 | Room 504 (5F)**

#### *Investigating the Implementation of Disaster Risk Reduction Curriculum in Secondary Schools in Myanmar and the Philippines*

Aye Nandar Win, Kyoto University, Japan

Jane Singer, Kyoto University, Japan

Disaster Risk Reduction Education seeks to improve the resilience of students and school buildings by building a culture of safety and skills for managing disaster risks. DRRE curriculum is created based on the local context and should be vertically integrated through formal and non-formal educational approaches throughout the student's schooling. The objectives of the study were to understand the effectiveness of the Disaster Risk Reduction curriculum and to analyze the perception of students on Disaster Risk Reduction gained through experience and classroom study in secondary schools in Myanmar and the Philippines. The multi-case study methodology mixed qualitative and quantitative approaches, including interviews with 2 curriculum developers, 6 school administrators and 55 teachers and surveys of 300 students of 6 secondary schools in Insein Township in Myanmar and Quezon City in the Philippines. A DRRE framework was applied to assess curriculum development and SPSS software used for descriptive analysis. The survey results indicated that students in Myanmar were less knowledgeable about proper evacuation procedures and disaster response than students in the Philippines, but that 96% of students in Myanmar knew about correct behavior during fire outbreaks, as compared with only 67% of Philippine students. It was found that there was poor linkage between disaster management and the education system in Myanmar. The study recommended that the DRR curriculum should be reviewed and implemented more thoroughly with regular disaster drills and systematic evaluation of student knowledge, based on greater coordination between educational and disaster management authorities.



# Friday Poster Session I

## 15:45-16:45 | Room 504 (5F)

### Sustainability, Energy & the Environment

**35985 | Room 504 (5F)**

#### *Distributed Big Data Underwater Fish Observation Platform*

YiHao Hsiao, National Center for High Performance Computing, Taiwan

SunIn Lin, National Center for High Performance Computing, Taiwan

FangPang Lin, National Center for High Performance Computing, Taiwan

In this study, we developed a distributed big data underwater fish observation platform. The platform includes: 1) a distributed underwater stream system for performing real-time long-term observations of ecosystems; 2) a multimedia big data query method for accelerating query efficiency; and 3) a fish tracking method based on compressive sensing theory for further analysis of fish. The distributed underwater stream system is broadcast in real-time via the Internet, but the big data are also archived for further fish analysis. These data comprise observations of 12+ hours of 640Å–480 pixel daylight images collected for over 4 years. The platform has the capacity to collect big data continuously. Accessing and utilizing these large volumes of data is challenging, so we developed a multimedia big data query method, which uses multiple-tier caching architecture and a universal unique identifier, to increase the query efficiency and reduce the database loading. Our experimental results demonstrated that the maximum speed-up when searching data was 2647% faster than that then searching data without using a cached architecture. The proposed fish tracking method implements background subtraction in the compressive tracking algorithm to acquire suitable prediction samples and negative samples, which are used by the compressive tracking algorithm. This method can achieve real-time fish tracking even in unconstrained environments and highly complex scenarios, such as drastic variation in shape, fast-moving fish, and with multiple similar fish. Our experimental results showed that this method improved the accuracy of fish tracking and the tracking success rate was 93%.

**36391 | Room 504 (5F)**

#### *Improving Power Consumption of Wireless Home Automation System with Secured Smart Energy Controller Design*

Airul Azha Abd Rahman, MIMOS, Malaysia

Ahmad Hafez Naw, MIMOS, Malaysia

Muhammad Al Baqir Zinal Abidin, MIMOS, Malaysia

Rohaya Abdul Wahab, MIMOS, Malaysia

Raja Mohd Fuad Tengku Aziz, MIMOS, Malaysia

The field of wireless sensor networks has been recognized as potentially transformative of home automation system technology and the field is growing steadily due to their ability to control systems via wireless networks infrastructure, efficiently and cost-effectively. Wireless Home Automation System (WHAS) using the Internet of Things (IoT) is a system that uses computers or mobile smart devices and sensors to control elementary home functions and features automatically over the Internet from anywhere around the world. It is meant to save electric power consumption and human energy. Secured Smart Energy Controller (SSC) with an Autonomous Intelligent Ambient Control System is an Internet of Things (IoT) solution is studied, which is capable of turning present Home Automation System (HAS) into smart establishment. Reliable and secure, the SSC system has been proven to save energy (approximately: 50% energy savings in lighting and 30% energy saving in air-conditioner). Based on the experiment, which was carried out for 8 weeks, measurement and data analysis found that power consumption of the HAS with the SSC system is decreasing 50% from the power consumption before the SSC, which is 8.54KWh. With the SSC, the power consumption is 4.25KWh.

# Friday Poster Session II

## 17:00-18:00 | Room 504 (5F)

### Social Sciences / Aging & Gerontology

**37278 | Room 504 (5F)**

#### *Mentor Guidance and Reflection: The Exploration of Promoting Science Interest for the Girls' Study in Primary and Middle Schools*

Hsiao-Ping Yu, National Taiwan Normal University, Taiwan

This action study tried to improve girls' science interest in middle and primary schools through teachers reflection and action. It set up teachers' group and professional learning community to discuss how to improve girls' science interest in science class and lead teachers to reflect to improve their gender awareness. The research collected qualitative text and data from the dialogue and investigation between teachers. It also observed teachers' teaching in the classroom and their guidance when girls did the research. Then, it also provided career guidance to help students explore their scientific interest, such as biography reading of women scientists, hands-on activities, laboratory visits, and role-model curriculum. According to the findings, some teachers did not feel the difference between boys and girls. However, teachers were aware of girls' advantages in scientific research through discussion, and put forward a lot of strategies to enhance girls' learning interest and performance. They felt that girls are very attentive and can make many unique points of view. However, girls seem less confident so teachers need to encourage girls to share and give a little more waiting time. Cooperative learning is very suitable for girls to learn science. However, teachers needed to pay attention to the proportion of boys and girls in the group discussion, to avoid students feel the gender stereotype threat and not wanting to express their views. It also observed teachers' actual teaching and collected students' feedback about their scientific learning and career curriculum to understand the implement effectiveness. Teachers felt it can effectively enhance the teacher's awareness and reflection through the teacher's discussion and mutual review. Students also believed that they learn more about the science through hands-on courses and career exploration activities. Finally, it gave some suggestions to be of reference to the teachers and educators.

**37392 | Room 504 (5F)**

#### *Developing Process of a Sustainable Multigenerational Co-Creative Learning Program*

Reina Mori, Teikyo University, Japan

Currently, Japan has the highest life expectancy in the world. Gerontology explores, in depth, a variety of issues related to aging in both its individual and societal aspects. However, limitations have been pointed out in terms of the credibility of studies that categorize everyone who is 65 years of age or older as elderly. From the viewpoints of theories of learning environmental design, and the theories of lifelong learning, this study proposes the concept of "learningful ageing" to explore the possibility of learning in the super-aged society. This study focused on Mogusa-danchi (Mogusa apartment complex) in Tokyo prefecture, which extends over the Hino and Tama city borders in Tama-shi. The purpose of our study is to make Mogusa-danchi into a "learningful aging" community by implementing a multigenerational co-creative learning program that enables both young and elder residents to study and age together. Our long-term goal is to build a system of lifelong learning that connects the Mogusa-danchi to neighboring educational institutions. To that end, 1) we have designed a multigenerational learning program together with residents and school students in order to encourage interaction between local residents of different generations; 2) we wish to propose a model for the cultivation of administrators who are capable of planning/managing/evaluating such multigenerational learning programs. As a stepping stone, in January 2015 we launched a project during which learning needs are identified through dialogues exchanged in Mogusa Fureai Salon (a community space for elderly care).

**37360 | Room 504 (5F)**

#### *Exploring Hakka Culture and Ethnic Relationships Through the Baoshan Reservoir Protest Event*

Ivy Haoyin Hsieh, Tamkang University Lanyang Campus, Taiwan

Cheng-Hao Pao, Tamkang University Lanyang Campus, Taiwan

The Baoshan (first) Reservoir was constructed in 1981, to fulfill the need of the Hsinchu Science-Based Industrial Park and to underpin socioeconomic development in the Hsinchu area. However, when the reservoir was built, the process of land expropriation was not as smooth as the residence expected. While the land over one meter of the reservoir was not counted into the expropriation area, 300 residents were not satisfied with the mode of handling and have kept protesting it for more than 30 years. The majority of residents in this area are Hakka people, who migrated to Boshan, Hsinchu area, more than three hundred years ago. Having suffered from the conflicts between the Min people and Hakka people, plus with the indigenous people historically, the ethnic group finally settled in Hsinchu, and took Taiwan as their hometown. After ethnic consciousness rose in 1980s Taiwan, the Hakka ethnic group has started to go through a series of social movements. The Hakka mostly live in the hills or are margined in the edge of the city, and were easily impacted by the urban development and forced to experience the side-effects of the development, such as pollution or land expropriation. The Baoshan First Reservoir event was one of these cases. This study thus aims to explore the cultural impact that may happen in the process of protesting the land expropriation and how residents perceive themselves regarding the ethnic identity and the relationships with other ethnic groups.

**36049 | Room 504 (5F)**

#### *Culture and Corruption: The Blurring Effect of Confucian Relationalism on Legislative*

Yi-Ming Yu, National Defense University, Taiwan

This study drew a sample from Taiwan's military to investigate the effects of culture on corruption. In-depth interview data was collected from 19 Taiwanese military personnel and analyzed to examine the cognitive effects of Confucian relationalism on legislative boundaries. The results of this study indicated that Confucian relationalism has a blurring effect on legislative boundaries. When laws and regulations are clear, there is not much discretionary leeway and civil servants do not let private affairs interfere with their public duty when dealing with strangers while they must devise solutions to help inner circle friends and associates. When legislative norms are not clear, civil servants have relatively more discretion; they might use public resources to establish relations when dealing with strangers or to strengthen existing relations when dealing with those in their inner circles. Under clear legislative norms and the absence of discretionary leeway, civil servants who illegally utilize resources to satisfy their own needs normally use rationalization to resolve cognitive dissonance in order to help themselves and perform their public sector duties. Rationalization allows civil servants to step across legislative boundaries, making it easier to help those in their inner circles.

# Friday Poster Session II

17:00-18:00 | Room 504 (5F)

## Social Sciences / Aging & Gerontology

### 35430 | Room 504 (5F)

#### *Gratitude, Social Support, and Life Satisfaction: A Test of Mediated-Effects*

Chihche Lin, National Taipei University of Technology, Taiwan

Gratitude is held in high esteem by virtually everyone, at all times, in all places. But only recently has psychological theory and research on gratitude begun to catch up with philosophical commendations. Studies have shown that gratitude is a strong predictor of life satisfaction. However, regarding mechanisms relating gratitude to life satisfaction have not been systematically explored. The current study examined relationships among gratitude, social support, and life satisfaction, and whether social support mediates associations between gratitude and life satisfaction. Four hundred and seventeen participants completed the Chinese version of the Gratitude Questionnaire, Inventory of Social Support, and Satisfaction with Life Scale. A SPSS Macro developed by Preacher and Hayes (2008) was used to address the hypotheses of the current study. Results indicated that not only was gratitude positively associated with social support ( $r = .56, p < .001$ ) and life satisfaction ( $r = .38, p < .001$ ), but also social support was positively associated with life satisfaction ( $r = .39, p < .001$ ). Furthermore, results showed that social support partially mediated the relationship between gratitude and life satisfaction,  $F(2, 413) = 48.93, p < .001, R^2 = .19$  (adj  $R^2 = .19$ ). The findings of the current study thus suggest that social support is one route through which gratitude is associated with life satisfaction.

### 37268 | Room 504 (5F)

#### *Factors Affecting Stress among Faculty Members of Public Universities in the Philippines: A Multiple Regression Analysis*

Jeryl Shawn Tan, University of the Philippines Diliman, The Philippines

This study focuses on particular demographic and education-related factors that contribute to the stress levels of public university faculty members in the Philippines. Participants in this study were part-time or full-time faculty members in a public university in the Philippines and were teaching at least a class for the first semester of the academic year 2016–2017. Participants were tasked to answer a survey, in online or paper format, that consisted of 3 instruments and other questions. Responses from 100 participants were then analyzed with multiple regression as the main statistical analysis. Results showed age, part-time/full-time status, job satisfaction and negative religious coping as significant predictors to faculty stress. Other performed analyses also revealed significant negative correlations between job satisfaction and stressors related to reward and recognition, and departmental influence. In addition, though faculty members prefer positive religious coping as a coping strategy over negative religious coping, a significant positive correlation was noted between the two types. Recommendations were made for future studies related to stress among public university faculty members in the Philippines.

### 35141 | Room 504 (5F)

#### *Long-Term Treatment of Native LDL Induces Senescence of Cultured Human Endothelial Cells*

Sung Yeul Yang, Chonnam National University Medical School, South Korea

Sung-Tack Oh, Chonnam National University Medical School, South Korea

Hoon Park, Chonnam National University Medical School, South Korea

Hyun Joong Yoon, Chonnam National University Medical School, South Korea

The study aimed to determine whether the treatment of native low-density lipoprotein (nLDL) on primary cultured human endothelial cells could induce their senescence. For this purpose, we analyzed the activity of senescence-associated-beta-galactosidase (SA-beta-Gal) and the expression profile of cell cycle-regulating proteins in cultured human umbilical vein endothelial cells (HUVECs) treated with nLDL for a long time. The results indicated that nLDL inhibited the proliferation of HUVECs by arresting cell cycle at G1 phase. The G1-arrested cells showed increase in cytosolic SA-beta-Gal activity, a biomarker of cellular senescence. The causative factor of the cellular senescence was nLDL itself and not oxidized LDL (oxLDL), since blocking LDL receptor (LDLR) with the anti-LDLR antibody suppressed the nLDL-induced increase in SA-beta-Gal activity. In addition, nLDL induced the cellular senescence by inhibiting the phosphorylation of pRb (G1 arrest) via the p53 as well as p16 signal transduction pathways. G1 phase arrest of the senescent cells was not overcome by nLDL removal from the culture medium. Moreover, the nLDL-treated cells produced reactive oxygen species (ROS) dose- and time-dependently. These results suggested that long-term treatment of nLDL could induce the premature senescence of endothelial cells via the production of ROS under in vitro culture condition.

### 35533 | Room 504 (5F)

#### *"Never Too Late to Learn" (Elderly Women's Club): Good Practice of Involving Elderly Women in Active Social Life*

Laura Makaryan, Center for the Development of Civil Society, Armenia

Svetlana Aslanyan, Center for the Development of Civil Society, Armenia

The presented paper consists of three parts. In the first part I intend to make a short overview of the situation of elderly women in soviet and post-soviet Armenia. Our research reveals that the incredibly vulnerable situation in which elderly women found themselves appeared after the downfall of the Soviet Union and the total social exclusion of the target group. In the second part I will present the project: its goal, objectives, and results, and refer to case studies. The long-term goals are: to promote elderly participation in public life, to improve their social state and protect their rights. The short-term goals are: to find their place in a changed social and economical environment, to share their life and professional experience with younger generation, and to change the attitude of society. The objectives are: to help elderly women to stay active people, and to find their own place in a changed social environment by increasing their active participation in social/civic life. Conclusion: Elderly people are in danger of being left out of society. It is necessary to evaluate their role in society and to facilitate and encourage their participation in public life. In this regards, establishment of a club where women could meet, exchange views, discuss an interesting topic pertaining to issues of concern such as health or social relations, and do something with the knowledge and experience they have accumulated over the years is very important and can be disseminated as a good practice.



# Friday Poster Session II

17:00-18:00 | Room 504 (5F)

## Social Sciences / Aging & Gerontology

**35734 | Room 504 (5F)**

### *The Investigation of Core Nursing Competence in Long-Term Care Services*

Ching Hua Liu, Cardinal Tien Junior College of Healthcare and Management, Taiwan

Nowadays, 12.51% of Taiwanese are over 65 years old and the number of 80-year-old people has grown rapidly. Thus, the development of long-term care services was needed. When caring for old people, physiological, psychological and social needs were considered to be satisfied. Still, there are insufficient studies about the core competencies that nurses were with equipped in the care of the elderly in Taiwan. Therefore, the goals of this study were to develop the nurses' core competencies in long-term care facilities. The method of this study contained semi-structured interviews and focus group. Five chairs from long-term care facilities of Taipei or New Taipei City were recruited. The procedure of this study included three times of one-hour focus group, dialogue records and interview transcripts. Data was documented and analysed by content analysis. The results of this study showed that care is a profession that takes care of people, regardless of age, who needs basic communication, physical examination and assessment skills and general nursing care skills. However, professional care nurses in long-term care facilities needed two years of medical surgical experience with skilled care, independent judgment, and crisis handling. Also, they were required to own the ability to lead a group and do assessment activities in order to comprehend residents' needs and enhance the quality of individual care in long-term care institutions. Simultaneously, hospice care and related training is also recommended. This paper concludes with suggestions on the nursing competence of first-year nurses in long-term institutions and relevant training courses for future long-term care nurses.

**35865 | Room 504 (5F)**

### *Attention Control Deficit is an Early Detector of Alzheimer's Disease*

Ko-Chia Chen, Dalin Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Taiwan

Sigmund Hsiao, National Chung Cheng University, Taiwan

Wen-Long Tsao, Dalin Tzu Chi Hospital, Taiwan

Attention is an important cognitive function for the formation of memory. Early stage Alzheimer's disease is accompanied by a reduced number of neurons in forebrain and medial-temporal lobe. These areas are related to attention and memory function. According to past studies the performance of attention control could discriminate between AD and non-AD, thus performance variability in the reaction time may be a good predictor for cognitive decline. We investigated whether intraindividual variability in an attention control task of reaction time maybe a predictor of advancing AD. We recruited 87 subjects, 28 normal aging, 33 MCI, 26 mild AD with equivalent age, sex, education. Their performance was observed twice, one year apart. Overall, the results indicate that attention control could discriminate advancing stages of AD. Intraindividual variability in reaction time is more sensitive than the mean in reaction time in predicting cognitive decline. Furthermore, attention control instability could predict normal aging converting to MCI. This finding may help early detection of AD, and develop early intervention program.

**35872 | Room 504 (5F)**

### *Investigation of Approaches for Increase in Life Expectancy of Mammals Using the Immunological and Based on Growth Factors DNA Therapy*

Ilya Dukhovlinov, Atg Service Gene LLC, Russia

Aleksei Alekseev, Atg Service Gene LLC, Russia

Aleksandr Kliaus, Innfarm Consulting LLC, Russia

Background: Our previous work has shown that IGF-1 based plasmid DNA well induced regeneration process in mammals. Including defensine gene in eukaryotic gene-therapy vector promote activation of anti-viral and anti-cancer immune response parameters. Objective: Study the life expectancy of laboratory mice injected with plasmid DNA coding IGF-1 and Def-Beta genes. Materials and Methods: Using specific primers, cDNA of IGF-1 and  $\beta$ -defensine was cloned into a plasmid vector pATG containing CMV promoter. BALB/c mice received intramuscular injections of DNA plasmid pATG-IGF-1 and pATG-Def-Beta mixture in saline. Dose for injection was 0.1 mg of each plasmid for one mouse. During injection electroporation procedure was performed. Post injection levels of INF-gamma production were assessed. Blood concentration of IGF-1 after injection via electroporation was measured by ELISA. Life expectancy of experimental animals was fixed. Plasmid mix injection were carried out every 2 month during 3 years of experiment. Results: After injection via electroporation on 24-96 hours IFN-gamma production increased on 50%. Blood level of IGF-1 was 96 ng/ml before injection procedure. After injection via electroporation level of IGF-1 was 182 ng/ml on 72 hour, 324 ng/ml on 168-hour end normalized as in control group on 10 day. Life expectancy of mice in experimental group was  $3.2 \pm 0.4$  years and in control group  $2.1 \pm 0.3$  years. Conclusions: Used plasmids combination provides increase life expectancy. This result proposes the hypothesis that simultaneously activation of T-cell immune component and regeneration system can provide increase in life expectancy.

**35897 | Room 504 (5F)**

### *Media Influence on Ageism in the Context of Rapidly Aging Societies: A Comparative Analysis between China and Japan*

Tingting Lian, The University of Tokyo, Japan

Lu Wang, The University of Tokyo, Japan

Osamu Sudoh, The University of Tokyo, Japan

The aging issue never fails to fascinate people these days, which also comes with the stereotype that elderly people are vulnerable, stubborn, less independent and out of date, thus becoming a burden to both families and society. On the other hand, it is believed that with the nature of efficiency and propaganda, mass media can intervene the public opinion easily, which means we are very likely to squeeze the stereotype of elderly people out of the public by analyzing the aging-related contents from mass media. Like how media have reflected and impacts on problems of racism and feminism, we hypothesize that agism towards elderly people is supposed to walk the same route in a rather radical and diverse way. This paper aims to figure out how mass media exactly functions on ageism towards elderly people, comparing and analyzing what people have commented online about some hot old-people-themed variety shows in China and Japan, especially with a view to SNS and Danmaku video-sharing websites which are popular among Chinese and Japanese net citizens.

# Friday Poster Session II

17:00-18:00 | Room 504 (5F)

## Social Sciences / Aging & Gerontology

### 35883 | Room 504 (5F)

#### *The Utilization of Opioid Analgesic in the Elderly Population*

Ching-Hsuan Chen, National Yang-Ming University, Taiwan

Gau-Jun Tang, National Yang-Ming University, Taiwan

Tzuo-Yun Lan, National Yang-Ming University, Taiwan

**Background:** With the increase in the elderly population and aging-related disease, the demand for opioid analgesic is required for the treatment of moderate to severe pain should increase accordingly. The purpose of this study is to determine the prevalence of opioid analgesic use among the elderly in Taiwan for the last decade, and to identify the factors associated with the use. **Methods:** This is a cross-sectional secondary-data analysis by using the NHI Research Database covering three one-million sample cohorts drawn in 2000, 2005 and 2010. Descriptive statistics and trend tests were used to examine the secular trend of use (having at least one opioid analgesic prescription during a year) and long-term use (having used for over 90 days) in the elderly population (aged 65 and over). Multi-level model was carried out to identify factors across the levels of patients, physicians, and hospitals that were associated with the use of opioid analgesics. **Results:** The proportion of opioid analgesics has increased from 1.3% in 2000 to 8.4% in 2010 ( $p < 0.001$ ). The use of tramadol increased dramatically from 34.6% to 75.1%. In contrary, the use of morphine decreased from 12.4% to 2.2% and meperidine decreased from 39.2% to 5.8%. The proportion of long-term use rose from 0.1% to 1.4% ( $p < 0.001$ ) between 2000 and 2010. The results from multilevel analysis have showed that patient gender, age, major disease, physician gender, specialty, hospital accreditation level at the key factors associated with the use and long-term use of opioid analgesics. **Conclusion:** The use of opioid analgesic increased significantly for the last decade among elderly population. The most significant increase is tramadol. However, the use of traditional opioid analgesics has decreased. Compare to that in western countries, the long-term prescription of opioid analgesics is relative conservative in Taiwan.

### 35915 | Room 504 (5F)

#### *Aerobic Training Effect on Physical Ability and Cognitive Function in Community-Dwelling Elders*

Huiya Chen, Chung Shan Medical University, Taiwan

Yung-Wen Tang, Chung Shan Medical University, Taiwan

Hsiu-I. Chen, Hung Kuang University, Taiwan

Yu-Hsiu Chu, China Medical University, Taiwan

Aerobic training has been shown to enhance cognitive function in elders. This study aimed to explore this issue more deeply by measuring a wide spectrum of cognitive functions, including set shifting, executive function, working memory, response inhibition, auditory memory, and delayed memory. We recruited a convenient sample of 12 community-dwelling elders ( $76.0 \pm 10.6$  years). The 12-week aerobic training program involved a 10-minute warm up, 20 minutes of aerobic exercise on a stationary bike, and a 10-minute cool down in one session, three sessions per week. All of the tests were performed by two trained assessors with excellent intra-rater reliability. The pre- and post-test difference revealed significant improvements in tests of physical ability, including the Timed Up and Go test, grip strength, and the 30-second Chair Stand Test ( $p < 0.05$  in paired T tests). The training effects were retained in the three-month follow-up test. With regards to the cognitive function, the aerobic training led to significant improvements in the Wisconsin Card Sorting Test, the Color Trails Test, the Mini-Mental State Examination, the Digit Span backward test, the Stroop test, and the Wechsler Memory Scale II. The only test variable without significant improvement was the Digit Span forward test. All of the above-mentioned improvements in cognitive function were retained in the three-month follow-up test. In conclusion, we declared a positive training effect of aerobic exercise in community-dwelling elders not only in their physical ability but also in a wide spectrum of cognitive functions. Furthermore, these training effects could be maintained for a further three-month period.

### 35939 | Room 504 (5F)

#### *Impact of Changes of Dementia Severity on the Primary Caregivers Burden*

Chiu-Man Liu, Dalin Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Taiwan

Pei-Tsen Chen, Dalin Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Taiwan

Wen-Long Tsao, Dalin Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Taiwan

Yi-Rong Chang, Dalin Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Taiwan

Wan-Ting Lin, Dalin Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Taiwan

Xuan-Song Hu, Dalin Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Taiwan

**Aim:** Aging with increasing prevalence of dementia in Taiwan has raised awareness of dementia care, as well as the caregivers' stresses resulted from caring the family member diagnosed of dementia. The study aims to investigate the impact of changes of dementia severity on the multiple dimensions of the primary caregivers' burden. **Method:** This cross-sectional study enrolled 130 patients diagnosed with dementia and their primary caregivers from the Dementia Center of Dalin Tzu Chi Hospital in Taiwan. We divided these patients into stable and worsened groups according to the change of Clinical Dementia Rating (CDR) scores in one year. We also used the modified version of the Chinese Caregiver Burden Inventory (CCBI) to evaluate the burden of their primary caregivers. We conducted t-test to determine significance between two groups. **Results:** There were 115 patients in stable group and 15 patients in worsened group. Compared to the stable group, the primary caregivers in the worsened group had significantly increased burden over psychological ( $p = 0.001$ ), social barriers ( $p = 0.045$ ), health ( $p = 0.001$ ), and social ( $p = 0.002$ ) aspects. However, there was no significant difference in economic and marital burden. **Conclusion:** The study suggests that the worsening of dementia has impact on the burden of primary caregivers in many aspects. We should put emphasis on the emotional support of the caregivers, whose family has worsened disability from dementia.

# Friday Poster Session II

17:00-18:00 | Room 504 (5F)

## Social Sciences / Aging & Gerontology

**35956 | Room 504 (5F)**

### *From Needs and Dilemmas Facing View of Elderly People Living with HIV Long-Term Care Measures in Taiwan*

Ching-Teng Angus Yao, Kaohsiung Medical University, Taiwan

The life of people living with HIV has been prolonged with HAART, and since 1997 the introduction of antiretroviral HAART in Taiwan has increased the survival rate of infected people to 85.9%. Therefore, with the extension of the life of people living with HIV and the entry into the old age, how to provide suitable long-term care services is an issue that Taiwan policy needs to face and think. This research through surveys and interviews to find Taiwan elderly people living with HIV in Taiwan needs and plight of the contains 1) diseases and health care issues; 2) social prejudice and discrimination; 3) psychology and adjustment of the identity and reflection; 4) adjustment of interpersonal relationships. According to the empirical data shows Taiwan's long-term care measures that difficulties arising in the care of older people living with HIV: 1) non-suitable for elderly people living with HI community long-term care services; 2) long-term care institution the exclusion of people living with HIV; 3) lack of financial resources of older living with HIV with using institutional long term care; 4) the incoherence of HIV medical and long-term care measures; 5) course focuses on long-term care health care, neglect the psychosocial dimensions of older people living with HIV. This study attempts to present long-term care of elderly people living with HIV needs and challenges and dilemmas being faced in Taiwan.

**36030 | Room 504 (5F)**

### *Strategies of Hong Kong's Healthcare System in Aging Population*

Angie Ho Yan Lam, The University of Hong Kong, Hong Kong

The aging population creates challenges for the healthcare system in Hong Kong. This paper examines the challenges faced and an acceptable delivery system amid Hong Kong's rapidly ageing population. Challenges: The elderly population is expected to increase to "one in four" in 2033. The elderly inpatient ratio is expected to be 62% in 2029. Aging people highly rely on the public healthcare service, resulting in long waiting queue in popular healthcare service. The healthcare system over-emphasizes curative care. Aging people seek primary care for cure rather than health maintenance. Even though the government provides Elderly Health vouchers, only people aged 70 or above are eligible. Besides, only 16.1% claimed to use the subsidies in preventive care. Strategies: Healthcare policy should emphasize disease prevention and active aging. Primary care with multidisciplinary approach should be implemented to address the holistic care. Integrative Elderly Care Centre should be developed to link up all healthcare providers to promote seamless transfer of elders to different levels of care. Public-private partnership combines resources in the public and private sectors. The public sector can purchase from the private sector some elderly healthcare services in high demand, such as dialysis, to shorten the waiting queue. Elderly Health Care Voucher Scheme should offer to the older people aged 65 or above. Elderly Health Care Voucher Scheme specified on preventive care and health screening could promote the preventive care. Lifelong financial planning and compulsory social health insurance scheme should be implemented to promote the financial sustainability of health systems.

**36386 | Room 504 (5F)**

### *Relative Risk of Developing to Diabetes Among Prediabetic Patients Compare to People with Normoglycemia: Meta-Analysis*

Xin Yi Xu, The University of Hong Kong, Hong Kong

Pui Hing Chau, The University of Hong Kong, Hong Kong

Daniel Yee Tak Fong, The University of Hong Kong, Hong Kong

Janet Yuen Ha Wong, The University of Hong Kong, Hong Kong

Angela Yee Man Leung, The Hong Kong Polytechnic University, Hong Kong

Background: Diabetes is one of the most common chronic diseases in the world especially in older adults. Older adults with diabetes are likely to have higher mortality and reduced functional status. The precursor stage of diabetes is called prediabetes. This study is to assess the overall relative risk of diabetes in individuals with prediabetes compare to people with normoglycemia. The results will provide epidemiological evidence to the process of developing diabetes to inform appropriate treatment for reducing the incidence of diabetes among elders. Methods: Studies were identified from PubMed, EBSCOhost, ProQuest Medical Library, Web of Science databases. Random effect model was used to pool the relative risk. The heterogeneity between studies was assessed by the p-value from Cochran's Q statistic and I<sup>2</sup>. Funnel plot and Egger's test was used to examine publication bias. All statistical analysis was performed by R. Results: 39 studies published from 1999 to 2016 were included in this meta-analysis which included 195,000 individuals with a broad range of ethnicities and nationalities. The overall estimated relative risk for diabetes among all kinds of prediabetes as compared to normoglycemic people was 6.46 (95% CI: 5.29, 7.89), with high heterogeneity between studies. Conclusion: Prediabetes is a high risk state for diabetes development and is gradually becoming more and more common among elders. Older adults with any category of prediabetes should pay attention to their health condition to prevent them from being true diabetic patients.



# Friday Poster Session II

17:00-18:00 | Room 504 (5F)

## Social Sciences / Aging & Gerontology

37247 | Room 504 (5F)

### *The Physiological Signals Measurement of Cognitive State in the Elderly with Mild Cognitive Impairment or Dementia*

Min-Wei Huang, Taichung Veterans General Hospital, Veterans Affairs Commission, Executive Yuan, Taiwan

Yen-Ting Chen, Southern Taiwan University of Science and Technology, Taiwan

Chun-Ju Hou, Southern Taiwan University of Science and Technology, Taiwan

Li-Shun Cheng, Taichung Veterans General Hospital, Veterans Affairs Commission, Executive Yuan, Taiwan

Jia-Ying Zhou, Taichung Veterans General Hospital, Veterans Affairs Commission, Executive Yuan, Taiwan

Shyh-Chyang Lee, Taichung Veterans General Hospital, Veterans Affairs Commission, Executive Yuan, Taiwan

Objective: Until now, many developed countries have become aging societies. In Taiwan, according to the statistical data from Ministry of Health and Welfare in 2015, there are 83.5% of the healthy and sub-healthy people among senior citizens. Therefore, how to propose strategies and plans for the elderly people as well as relevant laws, regulations and industry counseling transformation? This is the major issue at this stage without delay and it seems to be the major challenge for medical and health policy in the future. The main purpose was to realize the electrophysiological signals related with emotional manifestation in the elderly. Method: We applied the medical engineering technology, while the bio-physiological signals such as electrocardiogram (ECG), electromyogram (EMG), electroencephalogram (EEG), galvanic skin response (GSR), refers to the temperature (thermistor), and photoplethysmography (PPG) would be gathered in the elderly. The emotional trigger films including some international emotional pictures (happiness, sadness, fear and disgust) were applied while physiological signals did at the same time. Result: We compared 44 elderly people. The preliminary results show that the physiological signal activity of the elderly who have different cognitive dysfunctions, also have the same difference in the performance of the physiological signal. Conclusion: The findings demonstrated that there are significant differences of cognitive dysfunctions subjects. The physiological responses were low in cognitive dysfunctions patients as compared with normal subjects. In the future, we should strengthen the comparative analysis would be to quantify and modify the best treatment guideline for dementia.



# Saturday June 10

# Saturday Session I

## 09:00-10:30 | Room 501 (5F)

### Aging & Gerontology

#### Session Chair: Made Diah Lestari

**37137 09:00-09:30 | Room 501 (5F)**

#### *Discover Your Purpose in Later Life. Pre-Retirement Workshops with an Intergenerational Approach*

Poul-Erik Tindbaek, En3karriere, Denmark

The transition from working life to retirement is one of the most difficult changes in our lives and one of the most important social challenges to address. We are in the midst of a paradigm shift in retirement patterns due to the 25 years' life bonus we have. A growing number of healthy and active seniors want to continue unfolding their talents in meaningful contexts, and society needs their competencies. My pre-retirement workshop model – awarded by the European Commission in 2012 – has shown remarkable and consistent results empowering seniors to develop their talents, discover their purpose in later life and creating a new network and a new identity after leaving the working life behind. The voluntary world contains diverse possibilities for doing something meaningful together with someone else. With the intergenerational approach a guiding star for many seniors and grandparents searching for meaningful activities in later life and realizing that the time left is shorter than the time lived, is how their valuable experience can be displayed for the benefit of their grandchildren and the future generations – not forgetting weaker parents need for care. Evaluation schemes from the workshops shows that around 40% of participants decide to spend more time participating in voluntary work, giving back a “dividend” of their valuable experience.

**37399 09:30-10:00 | Room 501 (5F)**

#### *The Characteristics of Environment Encouraging Elder-Teenager Cooperation in Rural Community*

Duangkamol Limwongse, King Mongkut's University of Technology Thonburi, Thailand

Pranyos Chattarakul, King Mongkut's University of Technology Thonburi, Thailand

Nowadays, local wisdom plays an important role in community development. One month of participant observation at Na-Ngoi – Phonplaloh, rural communities 650 km from Bangkok, Thailand, showed that elders were full of passion to contribute craft wisdom to teenagers. Nevertheless, teenagers were not eager to learn. Crafting everyday products in semi-outdoor spaces around houses contrasts with chilling out with friends and smartphone at cafes in town. The experience mapping of the daily life of elders and teenagers presented that teenagers much consider virtual activities. They were full of passion to connect the world. This is extremely different from elders who preferred being in their comfort zone. However, the mapping also showed evidences of potential for cross-generational cooperation. First, craft is still needed although we are surrounded by technologies. Second is that online activities addict teenagers. These reasons supported the idea of a startup project to value craft for tomorrow. In this case, the environment encouraging teenager-elder cooperation must be carefully identified. The study suggested four key successes for developing environment: 1) Flexible Space, 2) Visible Craft, 3) Leisure Activities, and 4) Connect. With empathy of personal context, space should not limited by location. Elders might need to stay in their place for crafting while teenagers travel around and connect to elders, craft products and the world. Craft would be visible in some places where everyone can easily explore them. Everyday leisure could be flexible according to their lifestyle. These make the space more dynamic and highly adaptable for changes.

**35900 10:00-10:30 | Room 501 (5F)**

#### *The Model of Intergenerational Relation in Balinese Family*

Made Diah Lestari, Udayana University, Indonesia

Ni Putu Eka Yulias Puspitasari, Udayana University, Indonesia

Olvi Aldina Perry, Udayana University, Indonesia

Ratna Dewi Santosa, Udayana University, Indonesia

Change of family structure becomes something relevant to be studied in the era of the ageing population. In 2030 it is predicted that the family structure will tend to form an inverted pyramid, where the number of older people in the family is greater than that of adults and children. Change of family structure has an impact on changes in the patterns of intergenerational relations in the family. Economic advancement and high population mobility make the interaction between generations in the family lessen. The subsequent growing issue is on intergenerational relations and the role of caregiving for older people in the era of ageing population. This research conducted in Bali by taking into account that Bali is one of the provinces with the largest number of older people in Indonesia. The next unique characteristic is that the Balinese Hindu community embraces a patrilineal kinship system, where caregiving for older people is provided by sons and daughters-in-law in a family. Contrary to some research related to older people caregivers, which suggests that daughters take a significant role in comparison to sons. The aims of the study were to discover the model of intergenerational relation in Balinese family. The research was a qualitative study using grounded theory. There were 15 participants, above 60 years old, who live in urban areas in Bali. The results showed six major themes within the family, namely couple interaction, parents and children interaction, grandparents and grandchildren interaction, kinship, the generation gap, and the meaning of family.



# Saturday Session I

## 09:00-10:30 | Room 503 (5F)

### Renewable Energy & Environmental Solutions

Session Chair: Pantip Piyatadsananon

**35437 09:00-09:30 | Room 503 (5F)**

*Development of a Dual Axis Sun Tracking System with Astronomical Equation Program on Arduino Via GPS Module*

Pipatpon Mitasit, King Mongkut's University of Technology North Bangkok, Thailand

Amporn Kunchornrat, King Mongkut's University of Technology North Bangkok, Thailand

Chatchan Thongjub, King Mongkut's University of Technology North Bangkok, Thailand

The overall objective of this study is to design and develop a program for controlling a dual axis sun tracking system with astronomical equation program on Arduino via GPS module. This paper discusses mechanical structure, concept of program and algorithm base on the astronomical equation in Thailand. The concept of this tracking system is to collect GPS location and real-time data of date and time to calculate azimuth and elevation angle without other sensors, which is usually have problem of sun tracking. The dual axis sun tracking controller system develops by using an 8 bits Arduino MEGA via GPS module. This paper also compares the efficiency of the dual axis sun tracking system and a non-tracking system under the same location and environment.

**35926 09:30-10:00 | Room 503 (5F)**

*Developing an Economic Analysis Application for Solar Rooftop Electricity Generating in Thai Residential*

Ariya Pengruksa, King Mongkut's University of Technology North Bangkok, Thailand

Chatchan Thongjub, King Mongkut's University of Technology North Bangkok, Thailand

Amporn Kunchornrat, King Mongkut's University of Technology North Bangkok, Thailand

This paper presents the development of an economic analysis application for solar rooftop electricity generating in homestead. This study focuses on extracting specific parameters of solar rooftop system in residences and finding indicators of cost analysis and economic benefits to design and develop an application for solar rooftop system and economic analysis by using Visual C#. This application can reduce the complexity of the investment calculation of the solar rooftop system and also reduce human error from manual calculation by only inputting the location and the dimension of the plant area to get the result. The Graphic Design Interface (GUI) was designed in Thai language to help Thai people who are interested in the solar rooftop project to be able to analyze the economic benefits by themselves. The default of the calculation is to use the parameters of Poly Crystalline Silicon (c-Si) which is popular in Thailand and the information on the solar radiation value in each area from the Department of Alternative Energy Development and Efficiency of Thailand. So, the results from this application can represent the real value of each area in Thailand. In addition, the user can vary the technical parameters and economics costs, which could make the result more accurate, so that people can choose an acceptable investment by themselves.

**37353 10:00-10:30 | Room 503 (5F)**

*Applying Multi-Criteria Decision Analysis Techniques for Site Selection of Electric Vehicle Charging Stations in Thailand*

Pantip Piyatadsananon, Suranaree University of Technology, Thailand

Sauwaluck Vachiranapalai, Suranaree University of Technology, Thailand

Electric Vehicles (EV) have been promoted successfully and are widely used in Western countries for the purposes of reducing environmental impact and utilising energy resources in a sustainable way. Including Thailand, several relevant stakeholders have intensively studied the capacity of EV since 2004. Those studies mainly focused on vehicle material, battery, chargers and motors, while charging stations had not been considered in terms of the potential locations for fast charging installation. However, with the attractive promotion and tax subsidy of EV in Thailand, it will have enormous numbers of EV within the next few years. For this reason, potential locations of fast charging stations over are crucially studied to facilitate all EV drivers' requirements efficiently. This paper aims to present an appropriate technique used to identify the potential locations with some criteria essentially considered in installing EV charging station in Thailand. All techniques used to analyse the site section are criticized regarding some criteria considered in site selection based on multi-criteria decision analysis techniques. The results of this study present an appropriate technique with the justified criteria considered in identifying the potential locations for EV charging stations in Thailand. This paper is beneficial to the Thai government and other relevant organisations in term of an applicable guideline with the standard criteria in considering the site selection of EV fast charging stations over Thailand.

# Saturday Session I

## 09:00-10:30 | Room 505 (5F)

### Environmental Sustainability & Human Consumption: Waste

Session Chair: Yuanyuan Zhang

**35959 09:00-09:30 | Room 505 (5F)**

#### *A Sustainable Cement Replacement Material from a Coal-Fired Power Plant Waste*

Nuttapong Phachan, Suranaree University of Technology, Thailand

Siriwan Chokkha, Suranaree University of Technology, Thailand

Anurat Poowancum, Suranaree University of Technology, Thailand

Electrical energy is important in daily life. Coal is a primary fuel for electricity production. The waste from the coal-fired electricity generation is fly ash. The numerous fly ash is a low quality fly ash (LQFA). LQFA is a low reactivity ash, and is a hazardous waste. Normally, LQFA is stored in landfills. The heavy metals can leach from the stored LQFA into an environment, which is a serious problem. The sustainable ways to solve the problem is to utilize LQFA as a valuable material. Although, cement is widely used in construction work, it is an environmental unfriendly material. The high quantities of carbon dioxide gas are emitted from the cement production process. Geopolymer is expected to be a sustainable cement replacement material due to its manufacturing process, which does not emit carbon dioxide gas. Furthermore, geopolymer can be synthesized from the various types of waste materials. The aim of this work is to develop the geopolymer by using the LQFA and a calcined clay (CC) as a precursor. The results show that the compressive strength of LQFA-CC-geopolymer is higher than that of the commercial cement. The compressive strength of LQFA-CC-geopolymer is increased with increasing the concentration of NaOH and the ratio of Na<sub>2</sub>SiO<sub>4</sub> to NaOH solution. The knowledge of this work opens an opportunity to utilize LQFA as a usable waste to reduce an environmental impact of the coal-fired electric power plant.

**37425 09:30-10:00 | Room 505 (5F)**

#### *Municipal Solid Waste Management within Educational Institute: Case Study in King Mongkut's University of Technology Thonburi, Thailand (KMUTT)*

Aranya Udomittipong, King Mongkut's University of Technology Thonburi, Thailand

Suchada Chaisawadi, King Mongkut's University of Technology Thonburi, Thailand

Punchida Chimpalee, King Mongkut's University of Technology Thonburi, Thailand

Apichart Thammajarn, King Mongkut's University of Technology Thonburi, Thailand

Thanakarn Khumpai, King Mongkut's University of Technology Thonburi, Thailand

KMUTT's municipal solid waste management system has been developed since 2005. According to the university activities, municipal solid wastes in this system has been separated into 5 different types: organic waste, recycle waste, non-recycle waste, toxic waste and workshop waste. The system has been implemented to all sectors in KMUTT during 2012–2016. The 5-year results showed the total municipal solid waste produced in KMUTT was 2,769,935 kg and the average of municipal solid waste was 553,987 kg/year. The results also showed that waste utilization within the university was 347,349.8 kg/year (62.7%) with 24.2% of organic waste, 35.6% of recycling waste and 2.9 % of workshop waste and non-utilizes waste was 206,637.2 kg/year (37.3%) with 35.2% of non-recycle waste and 2.1 % of toxic waste. The average of recycling waste went to the KMUTT recyclable waste bank was 121,212 kg/year. The results from this study showed the average of MSW generation rate within KMUTT was 0.101 kg/capita/day. The benefits of municipal solid waste management system in KMUTT is not only to promote waste reduction and waste utilization within the university but also to protect public health and the environment, maintain a sustainable environmentally responsible workplace and save the university money.

**35911 10:00-10:30 | Room 505 (5F)**

#### *A Green Post-Treatment for Acid-Washed Sediments and Washing Wastewater by Using an Industry By-Product (i.e. Coal Fly Ash)*

Yuanyuan Zhang, Hyundai Engineering & Construction Co. Ltd, Singapore

Dan Chen, Hyundai Engineering & Construction Co. Ltd, Singapore

Hongseok Kim, Hyundai Engineering & Construction Co., Ltd, South Korea

Wei-Chung Chang, Nanyang Technological University, Singapore

Acid washing is a commonly used technique to treat sediment contaminated by heavy metals (HMs) through extracting HMs from sediment into solution using acid solution prior to reuse sediment for other purposes in industry. Although this technique is an efficient in extracting HMs, sediment after acid washing has high acidity (pH ≈ 2.7) and HMs-containing acidic wastewater was produced. In this study, an environmental friendly approach was proposed to address the issues associated with acid washing technique on high acidity of washed sediment and wastewater produced. Coal fly ash (CFA), an industrial by-product with high alkalinity from coal power plant, was assumed to increase pH value of both acidic sediment and wastewater, and to remove HMs from wastewater through formation of metals precipitation with pH increasing. CFA was added into acid-washed sediment according to different ratios of CFA to sediment (slurry) to figure out an optimal one to approach neutral condition. It was found that with increasing CFA dosage, the pH value of sediment increased. The optimal ratio (pH ≈ 7.0) was found to be 3:100. Toxicity characteristic leaching procedure test validated that final neutralization product (acid-washed sediment + CFA) is non-hazardous substance through monitoring concentrations of regulated HMs in leachates. CFA solution (CFA + water) was used to treat washing wastewater. Addition of ash solution into wastewater increased solution pH values, which induced formation of metal hydroxides or oxyhydroxides precipitation. Recovery water was recycled to prepare washing solution and metal precipitation with reduced-volume was treated as solid sludge.

# Saturday Session I

## 09:00-10:30 | Room 506 (5F)

### Economics & Management

#### Session Chair: Chao-Ling Chen

**35552 09:00-09:30 | Room 506 (5F)**

#### *Fusion of Tradition and Modern Time – Business Development of Hokkien-House B&Bs in Kinmen*

Chao-Ling Chen, National Quemoy University, Taiwan  
Neng-Huei Lee, National Quemoy University, Taiwan  
Yu-Fang Yen, National Quemoy University, Taiwan  
Shu-Yu Cheng, National Quemoy University, Taiwan  
Yan-Hui Xu, National Quemoy University, Taiwan

In 1992, after half a century of military governance, Kinmen saw the advent of the era of tourism. What Kinmen has but the tourist sites in Taiwan have not is military relics and age-old Hokkien houses – two major elements of tourism that are more capable of attracting tourists. When “Mini Three Links” between Kinmen and Xiamen officially started on the first day of 2001, Kinmen transformed into the key role of cross-strait interactions. That also gave rise to an increasing demand for staying overnight by businessmen in Mini Three Links, which became one of the reasons why bed and breakfasts suddenly emerged in large numbers in recent years in Kinmen. Hokkien houses now turned into B&Bs in Kinmen feature the neat style of bricks, gables, swallowtail roofs and saddle-like ridges typical of Hokkien architecture, while their interior is equipped with modern and advanced decorations, allowing guests to use modern facilities as well as experience the atmosphere of living in old houses. As such, it is a popular choice among tourists to Kinmen to stay at a Hokkien house B&B. This study conducted in-depth interviews with owners of old Hokkien houses turned B&Bs that are representative of the local region on a case study basis to identify the niche market and build a business model for them.

**35040 09:30-10:00 | Room 506 (5F)**

#### *Business Operation of Bed and Breakfast Under Local Cultures Using Kinmen in Taiwan as an Example*

Hung-Cheng Tsai, National Quemoy University, Taiwan  
Chin-Kang Huang, National Quemoy University, Taiwan  
Wen-Hung Huang, National Quemoy University, Taiwan  
Liang Tsai, National Quemoy University, Taiwan

Global tourism has begun to focus on local cultures and characteristics, indicating the advent of a new tourism era. Instead of taking a superficial tour, tourists are becoming interested in experiencing local cultures and lifestyles firsthand. Among various tourist products, the bed and breakfast is the most effective at helping tourists experience local cultures and lifestyles. In this study, a field survey was conducted along with administering in-depth interviews to bed and breakfast operators and tourists in Kinmen, Taiwan, to explore the relationship between accommodation products, organizations, marketing and competitors. The results revealed that tourists enjoyed local cultures, were willing to expend additional resources to experience them more genuinely, and were loyal to accommodation products.

**35296 10:00-10:30 | Room 506 (5F)**

#### *The Study of Marketing Strategy from Traditional Industries: The Case of Handmade Plain Misua Industry in Kinmen*

Chih-Chieh Lee, National Quemoy University, Taiwan

Plain *misua* evolved from traditional Chinese pasta. Since the ancestors' era, it has been one of the most important food ingredients used for ceremonies of long life and birthday greetings, temple worship, as well as the local street foods. Plain *misua* is one of the most local products of Kinmen county. Early inhabitants have ground their own flour to produce plain *misua*. Nowadays, there are still several handmade plain *misua* factories clustered together, which has become the characteristic of local industry. Moreover, there are several ancient plain *misua* factories in the Kinmen area that have accepted the concept of marketing and transformed into tourism factories. Their experiential marketing schemes are widely praised by visitors. This study focuses on marketing strategy for the local plain *misua* industry, with a comparative analysis on marketing schemes adopted by local tourism factories. Techniques including visiting interviews in-depth, and questionnaire surveys. By analyzing the results of the survey and comparing it with the impacts of marketing strategy adopted by local tourism factories, this report provides recommendations for traditional industries marketing strategy; furthermore, to predict how to maximize the marketing effects of traditional industries under the expectation of its competitive advantages, and more importantly to create a new brand value.



# Saturday Session II

## 09:00-10:30 | Prokofiev Hall (2F)

### Teaching & Learning

#### Session Chair: Yu-Fang Yang

**37439 09:00-09:30 | Prokofiev Hall (2F)**

#### *Conceptions of Learning English with Synchronous Online Tutoring: A Case Study in Taiwan*

Yu-Fang Yang, Jen-Teh Junior College of Medicine, Nursing and Management, Taiwan

Kuei-Chun Liu, Jen-Teh Junior College of Medicine, Nursing and Management, Taiwan

Huan-Tian Huang, Jen-Teh Junior College of Medicine, Nursing and Management, Taiwan

With the advent of information and communication technologies (ICT), an increasing number of educational institutions are incorporating Internet tools in their teaching programs. In Taiwan, for example, private tutoring is now being transformed from face-to-face mode into distance mode. The purpose of this study was to explore 75 college students' (around 20 years old) conceptions of learning English before and after a synchronous online program with native English tutors. The research data were gathered from a survey called the Conceptions of Learning English (COLE). The COLC survey included the following seven factors, in a hierarchical order: learning English as "Memorizing", "Testing", "Drills and Knowledge", "Grammar", "Communication", "Application", and "Understanding and Seeing in a New Way". The results of the t test analysis indicated that there were no significant differences before and after the synchronous online tutoring program in students' lower conceptions of learning, such as learning English as "memorizing" and "testing". The results also revealed that students' conceptions of learning English as "Drills and Knowledge", "Grammar", "Communication", "Application", and "Understanding and Seeing in a New Way" were significantly improved after the synchronous online tutoring program. Finally, some possible explanations for the results were discussed.

**37264 09:30-10:00 | Prokofiev Hall (2F)**

#### *Flipping an EFL course in the Egyptian Non-Formal Education Context: Possibilities and Challenges*

Amira Abd El Wahab, International Christian University, Japan

Teaching English as a Foreign Language (EFL) can be a difficult task as EFL learners need to be taught in communicative, lively and creative ways. They need to be motivated to practice the language as much as they can to acquire the language skills. The Flipped Learning Approach (FLA) tends to help students to be engaged in some activities in the classroom to improve their language skills because they have acquired the basic knowledge outside the classroom. FLA in teaching English can have a strong positive impact on students' performance in terms of acquiring the language skills, and developing soft skills such as communication skills, presentation skill, and teamwork spirit, to mention a few. Flipped Learning creates a suitable atmosphere for the students to grow and learn through the classroom activities. However, there are not many studies that have been conducted in teaching English by applying FLA especially in non-formal education. Besides, most of the studies compared between Flipped Learning and other traditional ways of teaching. There are not several studies that have been conducted to identify the students' preferences through recognizing their perspective towards FLA comparable with Communicative Language Teaching (CLT). Therefore, this study is addressed to fill this gap by scrutinizing students' and teachers' perspectives towards both of them in non-formal education. This is a phenomenological single case study with qualitative instruments such as interviews, observation, and students' and teachers' diaries. The data is analyzed manually by open coding theme.

**36878 10:00-10:30 | Prokofiev Hall (2F)**

#### *Grammar Teaching Approaches for Adult EFL Learners: An Indonesian Perspective*

Argian Nicko Wiwoho, Monash University, Australia

Grammar teaching pedagogy has been rigorously reconceptualised as a result of perpetual shift from one teaching method to another. A number of dimensions dichotomizing grammar teaching approach appears in response to the disparate degrees of grammar positioning in second or foreign language teaching. This paper attempts to rationalize that grammar teaching for adult learners in the Indonesian non-formal educational context is more appropriately approached through the deductive and explicit teaching. The presented rationale is substantiated from the literature drawing upon theoretical basis of English language teaching (ELT) as well as my professional practice as an English teacher in the referred context. The findings reveal that there is a broad spectrum of variables to determine how grammar teaching is contextually approached. This paper specifically addresses the language complexity gap and language needs as two determinants in implementing the deductive and explicit grammar teaching for Indonesian EFL adult learners. Two examples of classroom activities are presented as the contextual manifestation of deductive and explicit grammar teaching approach. The implication for EFL grammar teaching indicates the necessity to consider the context-bound determinants prior to putting a particular grammar teaching approach into practice.

# Saturday Session I

## 09:00-10:30 | Schumann Hall (2F)

### Education & Social Welfare

Session Chair: James J. Briganti

**35090 09:00-09:30 | Schumann Hall (2F)**

#### *School Lunch Supply Process from the Perspective of Service Design: A Case Study of Elementary School Program in Taiwan*

Pin Hua Su, National Yunlin University of Science and Technology (YunTech), Taiwan

The school lunch program in Taiwan was developed in 1954. In recent years, related studies and reports demonstrate that the trend of Taiwanese students wasting their school lunch is climbing. Every year, the quantity of wasted lunch is as high as several thousand tons and the wasting up to 1.9 billion NT in cost. The wasted food and cost may have an impact on Taiwan's economy, which may be a problem in society that should not be neglected. However, there are rarely studies that focus on school lunch and its process. Furthermore, Service Design could discover current process and recognize the situation and solve the problem. Therefore this study will focus on using a service design approach to analysis the school lunch process. The researcher used methods such as observation and in-depth interviews to understand the relationship between school and group meal industry in the process. Due to the time and resource limitation, the scope of the study is the case of primary school in Yunlin County. The KJ technique and user journey map was used to analyse the information. The result of this study is the development of a service design diagram from group meal industry to school lunch table. The result could be served as a reference on future studies regarding lunch wastage. This study hopes that future studies could focus on reducing school lunch waste.

**35778 09:30-10:00 | Schumann Hall (2F)**

#### *A Framework for E-Health Promotion Plan: Health Behaviors of University Students and Their Interest in Campus Health Promotion Experiential Activities*

Ling-Chin Ko, Kun Shan University, Taiwan

Jui-Feng Ho, Kun Shan University, Taiwan

The purpose of this study is to provide an assessment of the needs of health promotion in university students, based on body composition analysis reports, lifestyle variables and the interest in health promoting activities. The researchers designed and developed a new approach to guide health promotion practice, which is an e-Health promoting plan to facilitate users in recognizing their body composition analysis, and furthermore to encourage them to join the campus fitness center health promotion experiential activities twice weekly to sustain their physical fitness in good condition. A framework for e-health promotion plan will be exposed and discussed in this study. The results of this study can provide health care providers to develop interventions to assist students in developing healthy lifestyle behaviors.

**10:00-10:30 | IAAB Invited Speaker | Schumann Hall (2F)**

#### *Critical Thinking: Proof vs. Evidence – An Argument for the Inclusion of Phrenology in the Teaching of Medicine*

James J. Briganti, Nagasaki University School of Medicine, Japan

The working theory physicists use, the so-called Standard Model, is known to be incorrect. For example, at extremely small distances, and correspondingly high energies, this model and the General Theory of Relativity – the standard model of gravity – break down. While the Standard Model is not a complete or even correct description of what our universe consists in, it is nonetheless an extremely effective framework for predicting the outcomes of certain relatively low-energy interactions. Physicists both understand that the model is not correct and also use the model for describing experiments. They use the model to calculate experimental outcomes, ignoring the flaws in the theory, while they simultaneously probe the limits of the system, searching for signs of a theory that could augment or replace the Standard Model. All disciplines have and continue to evolve in such a fashion. Without the continuing advancement of thought and the recognition of error, progress or improvement in the application of sciences in particular, would not be possible. In other words, incomplete models (errors) are vital to our understanding. In this discussion, I will explore topics used in a medical English class that are intended to promote a critical and questioning response from learners. Erroneous "science" such as Phrenology, which was once commonly used in Western medical science to justify racial and ethnic prejudices, is one such topic. It is the underlying intention of this approach to both support the development of critical thinking skills of learners and to instill the idea that everything can be questioned regarding what they presume to "know" about their area of expertise. Finally, I will give specific examples of how successful this approach has been, what some learners discovered about their scientific approach, and what obstacles to developing critical thinking were encountered.

# Saturday Session II

## 10:45-12:15 | Room 501 (5F)

### Aging & Gerontology

#### Session Chair: B. Sally Rimkeit

**35527 10:45-11:15 | Room 501 (5F)**

#### *A Study on Developing a Companion Robot for Dementia Care*

Hsueh-Ting Chu, Asia University, Taiwan

Long-term care for seniors with AD/Dementia requires a lot of manpower and the expansion of care costs had become a great challenge for governments globally. Therefore, the development of accompanying robots is hoped to play an auxiliary role to help the care of AD/Dementia elders and reduce the demand of increasing caregivers while the elderly population grows rapidly. We devoted ourselves to designing accompany robots for caring for AD/dementia patients. Currently, the AI-powered chatbot is one of the popular topics of robot design. We applied the architecture of chatbot for the design of the accompanying robot. We see accompanying robots as auxiliary caregivers to share the load of real caregivers and the point of our study is how to talk with the AD/dementia patients to keep them thinking and not to lose their memory. For the purpose of a dementia companion, we studied different care models from our dementia cases. We design a care model using interactive multiplication tests. The accompany robot will ask the patient multiplications, for keying his/her memory counting numbers, such as "Five times two equals?" It also displays flash cards of the multiplication and give an animation for a correct answer on the screen. Our preliminary research needs further feedback from caregivers and elderly experts.

**37370 11:15-11:45 | Room 501 (5F)**

#### *Participating in a Dementia-Friendly Book Club at the Residential Aged Care Facility: A Randomised Controlled Trial Plus Qualitative Evaluation*

B. Sally Rimkeit, University of Otago Wellington Campus, New Zealand

Gillian Claridge, Dean at International Pacific Unity Palmerston North, New Zealand

Dalice Sim, University of Otago Wellington Campus, New Zealand

International, multicentre single-blind randomised controlled trial plus qualitative evaluation of the effects of participating in a dementia-friendly book club at a residential aged care facility twice weekly for seven weeks on primary outcome of quality of life (QoL-AD and QoL-AD proxy); and secondary outcomes of Thriving (The Thriving in Older People Assessment Scale-TOPAS), social empathy (Unrevised Reading the Mind in the Eyes Theory of Mind Test) and cognition (Addenbrookes-III). Control in the RCT is activity as usual at the RACF. Participants stratified into those living in rest home or hospital level care (with likely mild-moderate dementia), and those living in secure dementia units (with likely moderate-severe dementia, as supported by baseline Addenbrookes-III scores). Lived experience of participating in a book club explored through purposive sampling of narratives for Interpretative Phenomenological Analysis and language changes analysed through Discourse Analysis. Book clubs use materials specially adapted for people with dementia (see [www.dovetalepress.com](http://www.dovetalepress.com)) and a facilitator's manual for semi-structured book club discussions. Sponsored and facilitated within Bupa Care Homes in the UK, Australia and New Zealand.

**35336 11:45-12:15 | Room 501 (5F)**

#### *Using Play to Promote Dementia-Friendly Intergeneration*

Nga Lai Alice Kwong, Institute of Vocational Education, VTC, Hong Kong

Yee Man Eva Au, Institute of Vocational Education, VTC, Hong Kong

Creating dementia-friendly generations has emerged in a recent decade to respond to the steady rise in the number of people with dementia (PwD). Despite very little research, our preliminary review suggests that play activities could be effective in promoting positive interactions between young people and PwD and thus removing the stigma of dementia in society. This paper presents an intergenerational initiative of engaging young generations and people with dementia using play activities. The objectives of the initiative include: 1) promoting positive experiences of PwD; 2) enhancing higher diploma students' social and practical skills of employability; and 3) fostering a dementia-friendly generation. The initiative has two major stages. In stage I, higher diploma students from aging studies design elder-centered toys and games. In stage II, students implement play activities for PwD using their designed toys and games. The initiative presents opportunities for future aged care workers to creatively enhance the well-being of PwD through appropriate solutions. The elder-centered games not only enhance sensory and motor functions of PwD but also provide an environment for PwD to have interactions and enjoyment, which also help to reduce negative behavioral and psychological symptoms. It is also important to note that elder-centered games foster respect and dignity of PwD. The outcomes of the initiative could be used to scope the design and approach of educational activities to educate younger generations about dementia in schools and organizations.



# Saturday Session II

## 10:45-12:15 | Room 503 (5F)

### Environmental Sustainability & Environmental Management

Session Chair: Sunday Dalton Oseghale

**37237 10:45-11:15 | Room 503 (5F)**

#### *Integrated Assessment of Palm Oil Mill Residues to Sustainable Electricity (POMR-SE): A Case Study from Peninsular Malaysia*

Ida Fahani Md Jaye, University of Surrey, UK

Richard J. Murphy, University of Surrey, UK

Jhuma Sadhukhan, University of Surrey, UK

In recent years, the development of renewable energy (RE) technologies focusing on generating "green electricity" from the renewable resources became one of the main agenda for most of the countries to curb the effect of climate change. This renewable resources certainly has the same capabilities as the fossil fuel to generate electricity but still struggling to define its economic competitiveness. Clearly, to achieve long-term viability, RE based electricity generation system must be developed in their most economical form. The system must operate on the scale that promise a decent return from investment made to build the electricity generation system. This study provides an approach to select suitable feedstock to be used as the fuel, appropriate energy conversion technology and the optimal scale for the electricity generation plants using palm oil mill residues (POMR) through the combustion of empty fruit bunch (EFBs) and biogas from the anaerobic digestion of palm oil mill effluent (POME) in Peninsular Malaysia. With proper selection of feedstock, energy conversion technology and operating at the optimal size, the plants are expected to provide a return on investment (ROI) of 20% within a reasonable timeframe and have a significant impact on overall economic and environmental feasibility of the system. A guided suggestion on the suitability of the feedstock, appropriateness of the technology and the optimal size of the plant will be given to encourage the PO industry and government institutions to develop investment and support mechanism that will enable this important potential resources of sustainable, low-carbon electricity to be tapped effectively.

**37372 11:15-11:45 | Room 503 (5F)**

#### *Performance Evaluation of Paddy Rice Pneumatic Dryer*

Krawee Treeamnuk, Suranaree University of Technology, Thailand

Tawarat Treeamnuk, Suranaree University of Technology, Thailand

Jittrarat Jekkew, Suranaree University of Technology, Thailand

Kaattisak Jaito, Suranaree University of Technology, Thailand

This research was carried out to study the drying of paddies using a developed pneumatic dryer by the cyclone and without cyclone installation. In this study, Thai jasmine rice 105 variety was selected as a sample in the experiment. The effect of drying behavior, specific energy consumption (SEC), drying rate (DR) and percent of head rice yield were evaluated as the performance. For drying experiment, 40 kg of paddy was dried at drying temperature of 80C. The result shown that the drying system without cyclone gives a higher rate of moisture reduction than the cyclone installation. Based only on energy utilization during the process, the highest SEC of 7.25 MJ/kg water occurs on the drying at airflow rate of drying 0.0512 m<sup>3</sup>/s (50 Hz on blower motor inverter) by without cyclone. For the dried product quality, the highest head rice yield of 36.84% on the drying at air flow rate of drying 0.0631 m<sup>3</sup>/s (55 Hz on blower motor inverter). Break-even is at a production level of 1.6 tons/year.

**37418 11:45-12:15 | Room 503 (5F)**

#### *A Review on the Status of the Environmental Management System (EMS) For Palm Oil Industry in Malaysia*

Sunday Dalton Oseghale, Universiti Kebangsaan Malaysia, Malaysia

Ahmad Fariz Mohamed, Universiti Kebangsaan Malaysia, Malaysia

Ogboo Chikere Aja, Curtin University Malaysia, Malaysia

Palm oil waste contributes to environmental degradation at the location where the palm oil process is conducted. The management of palm oil waste is characterized by low regulatory monitoring in Malaysia. This paper reviews the status of palm oil waste generation and environmental management practices in the Malaysian palm oil industry. The paper also looks at the key factors influencing and driving the changes in the global environmental management system (EMS) procedures and relates them to the factors prevailing in the Malaysian palm oil industry waste management procedures. This review is conducted through a selection of literature from global environmental policies, ISO guides on EMS, Malaysian government policies on environment in relation to oil palm process and academic literature on EMS. The review showed that the current EMS practices in Malaysia are relatively below the global standards. The sustainability of the EMS standards in the Malaysian palm oil industry requires close monitoring from the Department of Environment to enforce the policies and keep the industries in line with the stipulated standards and policies. In conclusion, even though Malaysia has some good policies on environment and waste management, the level of practice by the industrial players still requires more input to make the process sustainable.

# Saturday Session III

## 10:45-12:45 | Room 505 (5F)

### Social Sustainability & Sustainable Living

Session Chair: Aida Mammadova

**37421** 10:45-11:15 | Room 505 (5F)

#### *Threat of Bio-Cultural Diversity Loss Evaluated by International Students: Case of Traditional Japanese Paper (Washi) Making in Futamata Community*

Aida Mammadova, Kanazawa University, Japan

Kanazawa City was designated as UNESCO Creative City in the field of crafts and folk, and the demand to the locally made traditional crafts still remains high in the city. However, after the rapid economical growth, the utilization of the local natural resources for traditional crafts making was reduced due to the introduction of cheap materials from China. Traditional Japanese paper (washi) remained one of the important bio-cultural elements that still used the local natural resources for its production and its production is managed in the sustainable manner with less negative impact on the environment. We have conducted educational field trips into the local Japanese community of Futamata in the Mount Izoen region of Kanazawa City, Ishikawa Prefecture. The region is famous for having made washi for centuries; however, due to depopulation and aging problems now only three craftsmen have remained in the community. The culture faces the threat of being lost with no followers. 20 international students visited the fields and made their evaluations about the bio-cultural linkage, and gave some recommendations for sustainable traditional craft making. The outcomes of the field trips showed that biological and cultural diversity were rich in the region, but, the sustainable practice of washi making can not survive without a bottom-up approach from the local authorities for its preservation.

**36721** 11:15-11:45 | Room 505 (5F)

#### *Diffusion of Innovation in Rural Community Development with Social Media: Case Study of a Local ICT Project in Japan*

Akifumi Eto, Kobe University, Japan

ICT (Information and Communications Technology) such as social media, if employed effectively in rural development, could complement the weakness of conventional rural development practices, for example, helping people in a distant place communicate with other and mobilize various resources. In recent years, the attempt of rural community development with social media called the local SNS (social networking service) has been spreading in Japan. However, many cases are unsuccessful. This is because the number of users of local SNS does not increase. Then, this paper focuses on the diffusion process of introducing SNS to rural communities. This research aims to clarify the methodology on effectively promoting the use of SNS. In this study, a questionnaire and interview survey was conducted, directed at all residents of three local communities in Japanese rural areas. First, the validity of segmentation followed by an analysis according to a questionnaire conducted was shown. In addition, we suggested effective intervention activities to potential users of SNS for each segment based on behavioral factors. Next, I verified the effect after carrying out the intervention activities. Based on the results, according to the stage of diffusion, the introduction guidelines were summarized.

**35530** 11:45-12:15 | Room 505 (5F)

#### *Building Community: Stepping Beyond Typical Large-Scale Housing Development Models to Create Better Rural Communities*

Shenuka de Sylva, Victoria University of Wellington, New Zealand

Community is a vital aspect of living, yet most large-scale housing developments tend to focus on achieving maximum occupation rather than creating environments within which communities can grow and thrive. This paper explores the key characteristics of large-scale (and post-disaster) housing developments in Sri Lanka, and their impact on the culture of rural communities. This paper argues that large-scale housing developments should not merely be about providing houses; instead, the focus should also be on the creation of vibrant community environments, and community living spaces. In other words, the paper argues for the significance of spaces in between and around houses, and the effect of these on the wellbeing of people and the progress of the community. The paper identifies several thresholds of "community living space" based on traditional, cultural and livelihood practices and discusses the architectural opportunities of these and their value and significance in creating better living environments. The paper concludes with comment on the value of placing a far greater focus on community space planning and design, particularly in low-cost housing developments.

**35894** 12:15-12:45 | Room 505 (5F)

#### *Re-Inventing Ourselves: Sustainability and Cultural Identity*

Katsuhiko Muramoto, Stuckeman School of Design, Pennsylvania State University, USA

Much of the current discourse on sustainability is concentrated on technological questions, and often narrowly defined as a matter of energy efficiency. Its ultimate goal is to transform architecture into hermetic, self-sustaining ecological machines by making them effective in reducing consumption while capable of harvesting "free" sources of energy such as wind and sunlight. This narrow understanding reduces sustainable discourse to matters of supply and demand. What remains unquestioned is man's instrumental relationship with nature: reification of the natural world. This prevailing technocentric approach subsequently motivates a modernism of "uniformity" in a global context under the guise of slogans such as "Save Our Planet", only at the price of regional architecture and aesthetic/ethical values. The modernist slogan of "Form Follows Function" is replaced by "Form Follows Energy". Drawing on the work of Heidegger, Merleau-Ponty, and Watsuji, this paper frames the question of sustainability in relationship to the concept of "eco-existence" that elucidates reciprocity between the individual, collective, built environment and nature, and investigates the relationship between sustainability and the expression of cultural identity and aesthetic – a link that is overlooked in our current discourse. I will first examine houses designed by Koji Fujii (1888–1938), considered as the pioneer of environmental design in Japan. Finally, selected contemporary Japanese houses will be explicated as examples of sustainable design that embody the concept of "reciprocity", and the implication of "living in harmony with nature" in a modern and globalized context will be discussed.

# Saturday Session III

## 10:45-12:45 | Room 506 (5F)

### Economics & Management

#### Session Chair: Chih-Chen Lin

**35392 10:45-11:15 | Room 506 (5F)**

#### *Risk Management and Profit-Loss Analysis of Foreign Currency Risks During Low-Interest-Rate Periods: A Case Study of NTD/NZD*

Li-Ning Kang, National Quemoy University, Taiwan  
Hsing-Kuo Wang, National Quemoy University, Taiwan  
Yu-Fang Yen, National Quemoy University, Taiwan  
Liang Tsai, National Quemoy University, Taiwan  
Jonathan Lu, County College of Morris, USA

In recent years, central banks in many countries have adopted quantitative easing monetary policy which induces lower-interest-rates. Take Taiwan as an example; currently the interest rates for short-term (one year or shorter) time-deposits range from .1% to 1%. Yet, foreign banks offer short-term deposits with interest rates between 1% and 5%, which are greatly welcomed by investors. The drawback for foreign currency deposits is the greatly fluctuated exchange rates. In the past, foreign exchange hedging related literature used the majority of foreign exchange contracts and foreign exchange options for the hedging strategy of the NT dollar against the US dollar, with less research taking financial returns and exchange risk aversion into account. This study aims to explore how enterprises use their short-term funds to buy NZD time deposits considering both the possibility of profits and the avoidance of fluctuated exchange rate risks. This result reveals that buying NZD time deposits fixed with USD index futures is an excellent hedging decision for enterprises to use their funds in a more flexible way considering profits and risk avoidance.

**37374 11:15-11:45 | Room 506 (5F)**

#### *Franchising and Knowledge Based View: A Conceptual Review*

Chin-Chiung Kuo, Tzu Hui Institute of Technology/I-Shou University, Taiwan  
Chi-Fang Liu, Cheng Shiu University, Taiwan  
Fu-Sheng Tsai, Cheng Shiu University, Taiwan

The present review paper set to understand the adoption of Knowledge-Based View (KBV) in research on Franchising. Through a SALSA approach (Search, Appraisal, Synthesis and Analysis), 61 papers were located for analysis. We conducted bibliometric analysis in terms of authorship and references analyses to understand the most privileged journals, impactful author(s), and influential references. The results showed that *Entrepreneurship Theory and Practice* and *Journal of Business Research* are two journals with the largest number of related articles; that Scott Shane is the most-cited author (with an average of 1.016 citations); that the Darr, Argote, Epplé (1995) paper is the most-cited reference. Moreover, the application of KBV into research on Franchising contains issues that were categorized into: knowledge transfer (in the Franchising context), knowledge creation, knowledge sharing organizational learning, knowledge exchanges, etc. Implications for future studies are discussed.

**37376 11:45-12:15 | Room 506 (5F)**

#### *Internet Fraud's Impacts on Consumers' Economic, Social, and Psychological Losses: An Integrative Perspective of Knowledge Gap, Platform Quality, and Risk*

Chih-Chen Lin, I-Shou University, Taiwan  
Kuo-Ming Chu, Cheng Shiu University, Taiwan  
Fu-Sheng Tsai, Cheng Shiu University, Taiwan

Internet fraud's impacts should be examined beyond the economic losses. Social and psychological losses are of equal importance in discussing the losses when encountering fraud. We proposed a conceptual discussion with developed propositions from an integrative perspective that combines considerations from knowledge gap, platform quality, and risk management. The conceptual model mainly articulates a series of relationships among different degrees of knowledge gap, platform quality and risk management in predicting the various combinative losses in the economic, social and psychological aspects. Propositions follow. First, when the knowledge gap is higher, the economic losses of being cheated on the Internet will be higher, while lower in the social and psychological losses. Second, when perceived platform quality is higher, the economic losses of being cheated on the Internet will be lower, while higher in the social and psychological losses. Third, when platform risk management is better, all aspects of being cheated on the Internet will be lower. Theoretical and practical implications will be discussed.

**35234 12:15-12:45 | Room 506 (5F)**

#### *An Analysis of the Effect of Building Street Light Management Systems on Street Light Management and Repairs: A Case Study*

Yu Lun Liang, National Quemoy University, Taiwan

Kinmen County has a total of approximately 15,000 street lights. Because of the countless types of street light equipment information, the fact that such information is updated periodically, and that information pertaining to the building and maintenance of street lights in different times is difficult to preserve, control and access, related departments often spend considerable time finding relevant maps and information prior to sending out their maintenance personnel. Because of the significant number and types of street lights used in Kinmen County, this study administered a general investigation on the locations, quantities, types, and forms of the street lights to archive relevant basic databases, compile street light numbers and codes, and establish a street light repair system. The objective was to use such an information system to quickly repair street lights and adopt the system concepts to build complete information standards as well as provide the public and related agencies with a convenient repair and maintenance management system. In addition, the said system can be used to conduct relevant operational planning and statistical analyses.



# Saturday Session III

## 10:45-12:45 | Prokofiev Hall (2F)

### Teaching & Learning

#### Session Chair: Elson Szeto

**37396 10:45-11:15 | Prokofiev Hall (2F)**

#### *Can Elective Course Be Used to Promote Meaningful Learning at Secondary Level? A Study of Students' Satisfaction in School-Based Course*

Yuan-Tai Chen, Taichung Girls' Senior High School, Taiwan

Yong-Shun Lin, Ling Tung University, Taiwan

Yu-Te Wang, Taichung Girls' Senior High School, Taiwan

Chih-Yang Chao, Ling Tung University, Taiwan

The evolution of the traditional disciplinary curriculum was implemented by the education policy in Taiwan school curricula at secondary level to create knowledge and understanding for the twenty-first century. This study was the first stage of a three-year research project supported by National Science Council of Taiwan, investigating the effectiveness of school-based elective courses in promoting students' development of core competencies and diverse ability. A total of 17 multiple elective courses and 502 secondary-level schoolgirls participated in the study. After 18-week classes in experiment, we interviewed students in depth and collected their evaluation and questionnaires. Through data analysis, the findings showed a statistically significant outcome in teaching strategy, learning gains, reflective learning, and course cognition, but except learning attitude outcome dimensions from the survey of students' satisfaction. Participants in the planning of self-learning content and active collection of learning profile two items outcome show no significance, further from the qualitative data analysis that the class time is too short and the first contact with elective courses so that some students cannot master learning skills, but most students indicated the elective courses provided them with an opportunity to explore a wide range of subjects. This study proves that elective courses are feasible at secondary level, and especially that hands-on, exploratory and non-lecture courses could effectively improve students' interest in learning.

**35089 11:15-11:45 | Prokofiev Hall (2F)**

#### *The Research of Instructional Objectives of Science Education in Taiwan: An Experience of Biology Teaching in Junior High School*

Chia Jung Hsu, National Yunlin University of Science and Technology, Taiwan

Rapid changes bring with the tide of globalization. To promote national development in upcoming knowledge economy and information technology, cultivation of talent becomes an important issue. School education must also be amended and adjusted. In daily life, the relationship of public and technology products is closer and thus the cultivation of scientific literacy is much more important. Therefore, the researcher focused on science education in this study. In the traditional school education, the teaching emphasis is on knowledge learning. Teachers usually use direct instruction as the main teaching method, and students tend to mastery learning to get high scores in pencil-and-paper test. To adapt modern social life, Grade 1-9 Curriculum Guidelines especially shows that students obtain the knowledge and ability by scientific inquiry and experience of life. However, field instructor did not own this kind of learning process this day. To help instructors produce more profitable instructional events, researcher investigates instruction design of nature science in this study. First, the study used document analysis to discover acceptable instructional objectives of nature science. Then, the researcher conducted a focus group with a group of field instructors to analyse the instructional objectives. The result is to discover instructional objectives that reach the curriculum goal of Grade 1-9 Curriculum Guidelines and 12-year Basic Education, and meet the instructor's demand. Researcher expect this study could serve as a sample for science education related areas.

**35783 11:45-12:15 | Prokofiev Hall (2F)**

#### *A Study on Collaborative Learning Based on Dynamic Group in E-Learning*

Jui-Feng Ho, Far East University, Taiwan

Ling-Chin Ko, Kun Shan University, Taiwan

E-learning's dramatic change in information technology (IT) infrastructure has led to fundamental changes in how education operates and also brought people flexibility, freedom and equal rights, and the opportunity to learn. However, not all students are able to adapt to virtual learning successfully. There are different characters between students in vocational school systems and students in traditional universities in Taiwan. The purpose of this study will be to explore best practices for online learning communities. The systems will automatically dynamic learning groups into learning communities by heterogeneous learners, and learners' profiles and achievements. The experiment will focus on the development of learning communities through online discussion. The researchers hope that designing a new e-learning platform will improve students' learning attitude and achievements in vocational school.

**35975 12:15-12:45 | Prokofiev Hall (2F)**

#### *Examining E-Learning Capability in Chinese Higher Education: A Case Study of Hong Kong*

Elson Szeto, The Education University of Hong Kong, Hong Kong

Over the past 15 years, digital technology has ubiquitously penetrated societies around the world, while e-learning is a key driver of widening participation and knowledge transfer in Chinese higher education. As a vibrant, Chinese society in Asia, Hong Kong's new generation of university students, perhaps digital natives, have been learning with e-learning since their basic education. So far, primary to secondary education has embraced the advantages of e-learning capacity to advance learning of different subject knowledge. E-learning capacity in higher education is yet to be fully examined in Hong Kong. This project reviews the government's policy of Information Technology in Education which has largely been put forward since 1998. The study reported in this paper is the findings of the policy analysis as a qualitative case study of Hong Kong on potential e-learning capacity to be developed in higher education. In respect of the e-learning capacity developed in schools, this study focuses on: 1) the ICT settings in institutional learning environment; 2) the pedagogic responses to e-learning; and 3) the potential use of e-learning for learning. The findings will inform university senior management, enabling them to effectively enhance institutional e-learning capacity for effective learning and teaching and new knowledge acquisition. Policymakers will be aware of potential development of e-learning capacity for the preparation of future talents for new opportunities in the twenty-first century.

# Saturday Session III

## 10:45-12:45 | Schumann Hall (2F)

### Education & Social Welfare

#### Session Chair: Annie Cheng

**35867 10:45-11:15 | Schumann Hall (2F)**

#### *Japanese Avoid Going Abroad? Concerning the Accumulation of Transnational Human Capital in Japan and Its Impact on Social Disparities*

Steve Richard Entrich, University of Potsdam, Germany

Japanese families are known for their massive private investment in supplementary education services. Until recently, however, such investments only rarely targeted the increase of students' "transnational human capital" (Gerhards & Hans, 2013). Hence, in international comparison, only a below OECD-average percentage of Japanese students actually study abroad. However, according to recent data of the MEXT (2016), an increasing number of university students enroll at universities overseas. Besides making investments in shadow education to increase the chances of gaining access to high ranked schools/universities, it seems as if other ways of improving one's skills, such as the accumulation of transnational human capital through studying abroad etc., have become increasingly attractive – not least because of the possible positive effects on future income. The question addressed here is whether socioeconomically advantaged families invest in transnational capital to gain competitive advantages as a means of maintaining their status advantage. Based on data from the 2013 Benesse Gakkogaikyoikuhi Chōsa, the determinants for investments in this increasingly valued type of capital are analyzed. Findings indicate that students from well-off family backgrounds who already have experience staying abroad and with certain types of supplementary education will be most likely to study abroad in the future. Therefore, it seems likely that upper-class families make such investments to achieve competitive status advantages.

**37395 11:15-11:45 | Schumann Hall (2F)**

#### *Investigating the Influences of Online Learning for the Economic Disadvantaged Students in Higher Education System*

Yi-jung Wu, Shih Hsin University, Taiwan

When talking about policies to disadvantaged students in the higher education system, it is mostly about monetary support. However, from the human capital accumulation point of view, monetary support should not be the only major approach that helps the disadvantaged students enter college, graduate from college, and start a career. The learning on professional knowledge and skills, interpersonal relationships, good working and learning habits, high motivation in learning and good time management and self-control, are all important capabilities to learn in college lives. Therefore, in addition to the traditional approaches in accumulating human capital, the researcher intends to observe a different and indirect approach in human capital accumulation: digital learning. It is proved that digital learning, when used appropriately, is able to reach better educational achievement in the short term. Moreover, online learning is also able to develop and enhance students' good learning habits and enhance students' motivation. The researcher first collects data from more than 400 students who have taken online courses on campus to get the preliminary findings about students' views on online learning. In addition to the overall findings to the general student population, the researcher investigates further the perspectives of the online courses to the social economic disadvantaged students, hoping to provide some policy applications for this specific population. The accumulation of human capital is not just the advancement of education and professional skills. The researcher intends to investigate whether good working and learning habits, highly self-controlled and motivated attitudes can be cultivated through the process of online learning. If this is the case, the online learning approach may become another venue to help the economic disadvantaged succeed in the long term.

**37325 11:45-12:15 | Schumann Hall (2F)**

#### *Development and Validation of the Instrument for Teachers' Collaborative Professional Work Activity*

Jihoon Song, Hanyang University, South Korea  
Hyun Jung Im, Hanyang University, South Korea  
Jooho Park, Hanyang University, South Korea  
Myung Hyun Yoo, Hanyang University, South Korea  
Yunjung Ro, Hanyang University, South Korea

The purpose of this study is to develop and validate a measuring model on secondary school teachers' collaboration including learning aspects or elements, which leads to their professional development. A total of 1030 teachers in middle and high schools in Seoul, the Republic of Korea, were surveyed. In order to perform two types of factor analyses, random half-split was considered and then the first half was used for exploratory factor analysis (EFA) and the other was used for confirmatory factor analysis (CFA). Four categories of teacher collaboration were divided: 1) Sharing teaching methods and knowledge; 2) Observing colleagues' teaching activities; 3) Engagement in team activity and learning; and 4) Interaction for administrative activities. In order to test between four sub-factors and measurement items, two types of factor analyses employed by splitting the sample into two subsamples ( $n_1 = 516$ ;  $n_2 = 514$ ). First, a relation between four sub-factors and measurement items in the subset 1 was examined using exploratory factor analysis (EFA), and factor-loading value of .50 was used for cut-off value. All loading values ranged from .5 to .904 except one measurement item under factor 2, that is, Engagement in team activity and learning. Second, confirmatory factor analysis (CFA) was performed using the subset 2 ( $n_2 = 514$ ) in order to confirm the measurement model based on the results of EFA. The CFA results support that measurement items fit the structure. As a result, findings indicate that the developed measuring model is reliable.

**35974 12:15-12:45 | Schumann Hall (2F)**

#### *Examining the Influences of Exchange Programmes on Youths' National Identity: A Hong Kong Case Study*

Annie Cheng, The Education University of Hong Kong, Hong Kong

Since the handover of Hong Kong to China, "National Identity" has become a vital focus promoted by the HKSAR government. Past research has shown that student participation in exchange programmes and study tours provides the possibility of new formulations of national identity. Since the Policy Address 2008, the HKSAR government has been actively expanding and exploring the feasibility of Mainland exchange programmes to enhance our youths' understanding of Chineseness and to strengthen their national identity. Schools have been sponsored or subsidized with the costs of Mainland exchange activities through various grants and channels. Considering the significantly increasing number of Hong Kong youths who have participated in these Mainland exchange programmes and study tours, however, the effectiveness of these activities is understudied. At present, there is a lack of systematic research on the impacts of these activities and the ways in which they influence our students' perceptions of national identity. Using case study approach, this study aims to examine students' perceptions of their national identity, and evaluate whether the Mainland exchange programmes or study tours have influences on students' perceptions of national identity. Results show that the influences on national identity varied which were dependent on the objectives and destinations of the programmes. The findings of this study can provide significant feedback for schools to organize meaningful Mainland exchange activities or study tours and inform policy makers how to formulate effective strategies for promoting such exchange activities.

# Saturday Session III

## 13:30-15:00 | Room 501 (5F)

### Aging & Gerontology

#### Session Chair: Rodney Jilek

**35479** 13:30-14:00 | Room 501 (5F)

#### *Caregiving for Older People in a Foreign Land: The Cultural Divide*

Marisa Cordella, The University of Queensland, Australia

Sol Rojas-Lizana, The University of Queensland, Australia

Using Discourse Analysis we explore the connections between ageing and coping in the discourse of senior Spanish speakers in Australia in relation to the stressor "future care". Nineteen semi-structured interviews were conducted to identify the coping strategies used by participants when talking about their future caregiving expectations. The results overall show that immigrants ageing within a different cultural group adopt coping strategies that aim at reconciling needs and expectations about family caregiving. In particular the results indicate that the participants use active and passive coping strategies to deal with stress. Active strategies favour a better connection with family members and community support, while the passive strategies show a level of resignation about what the future holds for them through religious comfort. Although participants tend to prefer a familism approach, in general they also seem resigned to their children having adopted a less family-centred stance. They justify their children's behaviour as an unavoidable product of Anglo-Australian acculturation and modernisation. A better knowledge of the main stressors confronted by a particular group may contribute to open a broader dialogue on policies, provision of best care and care management that will hopefully address the specific needs of diverse groups in the population.

**35491** 14:00-14:30 | Room 501 (5F)

#### *Elderly Day Care Model in a Thai Community*

Kanchana Piboon, Burapha University, Thailand

The purpose of this study was to develop an elderly day care model in a Thai community, in the vicinity of Burapha University Hospital. This study process was divided into three phases: 1) a situation analysis from public hearing; 2) developing an elderly day care model 3) evaluating the appropriateness of the developed elderly day care model. Research tools consisted of a questionnaire, open-ended questions and evaluation form of elderly day care model. The data were analyzed by using descriptive statistics, and content analysis. Each phase revealed the following results: 1) The current situation of elderly day care did not clear and practically stated in both governmental policies and standard guidelines for elderly day care. Stakeholders expected that elderly day care services should be established in the community and the service model should meet the elderly day care's philosophy, mission, vision and optimal goal and the needs of the elderly and relatives; 2) The developed model consisted of three components, including a policy for managing elderly day care, which must be explicit and include a plan and strategic management, the multidisciplinary team should participate in developing and operating in the strategic plan, and the elderly and their relatives should participate in the activity planning; 3) the developed model was appropriate for using in the community surrounding the university hospital context (93%). To apply this model in other areas, healthcare providers should consider several issues, including target population, healthcare service providers, other stakeholders' expectations and needs and area contexts.

**34850** 14:30-15:00 | Room 501 (5F)

#### *Residential Aged Care Services – The Australian Experience*

Rodney Jilek, St Elizabeth Home, Australia

Since 1997, the provision of ageing and aged care services to older Australians has undergone significant change and growth. The sector has moved from what was considered a "cottage industry" to a highly competitive market with a wide range of participants including for profit entities. This heavily government subsidised sector, which is based upon distinct pillars of accreditation and continuous improvement, compliance and regulation, complaints handling and management is widely considered to be one the most highly regulated aged care systems in the world. After 20 years of this new system, January 2017 marked the first step of deregulation and the introduction of Consumer Directed Care into community based services. This is due to be followed by a similar introduction into residential services, changes that are expected to fundamentally change the way ageing Australians receive community and institutional based aged care. This paper will begin by exploring the fundamentals of accreditation and continuous improvement, compliance and regulation and government funding in the Australian aged care sector and then look forward to examine how Consumer Directed Care will fundamentally change this approach.



# Saturday Session III

## 13:30-15:00 | Room 503 (5F)

### Energy: Renewable Energy & Environmental Solutions

#### Session Chair: Sunwoo Kim

**35647 13:30-14:00 | Room 503 (5F)**

#### *Sustaining Off-Grid Power or Connecting to the Grid: A Comparative Study on the Implementation of Microhydro Power for Rural Electrification*

Heksi Lestari, University of Twente, Netherlands  
Maarten Arentsen, University of Twente, Netherlands  
Hans Bressers, University of Twente, Netherlands  
Budhi Gunawan, University of Padjadjaran, Indonesia  
Johan Iskandar, University of Padjadjaran, Indonesia  
Pampang Parikesit, University of Padjadjaran, Indonesia

Off-grid technologies have been implemented in rural areas where electricity supply by the national grid is economically infeasible due to high costs and technical barriers. However, the continuation of the stand-alone technologies is quite often challenged by the community's prospect to be connect to the grid. Both community and government prefer electricity supply by the grid over stand-alone technology. But this raises the question about the sustainability of electricity supply at the community level. Is the grid or the off grid supply more sustainable? Therefore, the paper analyzes the sustainability (both in terms of SD aspects and in terms of endurance) of ongoing renewable rural electrification projects, in the prospect of a grid connection of a community. Our analysis compares three cases of microhydro power projects in Bogor Regency, Indonesia, and is based on qualitative document analysis, complemented by semi-structured interviews and observations. The paper explores, firstly, the extent to which each microhydro power project meets a set of sustainability criteria (namely technical, economic, social, environmental, and institutional). Secondly, using Ostrom's Institutional Analysis and Development (IAD) rule-based framework, the paper captures specific institutional conditions influencing the sustainability of each case and analyzes how institutions create ways to overcome obstacles in sustainable rural electrification. Our results show that electricity supply by the grid might be less sustainable than quite often perceived by community and government.

**35981 14:00-14:30 | Room 503 (5F)**

#### *Energy Conservation Strategies: Policy Lessons from the Tokyo Electricity Crisis*

Robert Lindner, United Nations University, Japan

The Fukushima nuclear disaster in 2011 triggered a prolonged energy supply crisis in the Tokyo Metropolitan Region and gradually also spread to other parts of Japan. Unprecedented in scale and duration, the supply crisis initiated a multitude of countermeasures and started an ongoing public debate about energy production and consumption in modern societies. Based on anthropological field research and content analysis, the presentation explores how various energy saving and efficiency campaigns were employed in Tokyo to avert blackouts and to raise awareness about energy issues in the general public. The countermeasures proved to be enormously successful, as the mega-city managed to reduce its energy consumption more than 10 percent on average in the years following the disaster. The findings show how energy conservation can be successfully promoted through the interplay of different communication strategies, involving various societal actors and targeting specific focus groups. The case study provides valuable lessons about energy crises strategies and public awareness campaigns.

**35675 14:30-15:00 | Room 503 (5F)**

#### *Cooling of a Metal Hydride Reactor for Hydrogen Powered Vehicles*

Matthew D. Keith, University of Alaska Fairbanks, USA  
Sunwoo Kim, University of Alaska Fairbanks, USA

The present research is focused on improving the rates at which hydrogen is absorbed into metal hydride cylinders. Whether the factor under study is the metal hydride material or the heat exchanger structure, there seems to be a lack of study using phase changing heat exchange. This study uses Ti1.1CrMn, a high pressure metal hydride (HPMH) with a low enthalpy of formation, in a simple cylindrical reactor. Regardless, a large amount of heat is still released when the container is charged with hydrogen. To handle the heat generation, phase changing coolant is used to capitalize on the benefits of the heat of vaporization for effective heat removal from the system. The reactor contains 21.37 kg of metal hydride to hold 250 g of hydrogen at 90% reaction completion. Ideally a short charge time of approximately 10 minutes is required for hydrogen-powered passenger cars; otherwise the storage system is too slow for the everyday consumer. Using these criteria, an optimization study, with the aid of construal theory, was completed to choose the best coolant path and fin structure with additional optimization of the volume fraction of the heat exchanger for an efficient charge time.

# Saturday Session III

## 13:30-15:00 | Room 505 (5F)

### Environmental Sustainability & Environmental Management: Land Use & Misuse

#### Session Chair: Han-Shen Chen

**36031** 13:30-14:00 | Room 505 (5F)

#### *Effects of Extreme Weather Events and Land Use Change on Urban Ecosystems*

Szu-Hua Wang, Chinese Culture University, Taiwan

Min-Han Huang, Chinese Culture University, Taiwan

Urban ecosystems are complex coupled human-environment systems which contain abundant natural resources for breeding natural assets and attract urban assets and consume natural resources, triggered by urban development simultaneously. Land use change illustrates the interaction between human activities and environments factually. IPCC (2014) announces that land use change and urbanization due to human activities are the major cause of climate change, leading to serious impacts on urban ecosystem resilience and risk. Risk assessment and resilience analysis are the keys for responding to climate change on urban ecosystems. Therefore, this research focuses on research review of risk assessment and resilience analysis. The integrated method of risk assessment and resilience analysis will be developed from the aspect of ecosystem based on typhoon precipitation in the Taipei area.

**30084** 14:00-14:30 | Room 505 (5F)

#### *A Methodological Framework for Assessing Tourism Induced Urbanization Towards the Sustainability of the Built Environment*

Kereshmeh M. N. Roodbari, Universiti Sains Malaysia, Malaysia

Behnam Sarfaraz, Shahid Chamran University of Ahvaz, Malaysia

Badaruddin Mohamed, Universiti Sains Malaysia, Malaysia

Tourism as development strategy, particularly in developing countries, leads to dramatic change and reconstructing of the coastal areas. The impulse for attracting tourists and providing the landscape for tourism consumption has resulted in the rapid urbanization of these areas. However, the short time growth should not be overlooked with long-term adverse effects. Despite the significant contribution of tourism development in the urbanization process of coastal areas, limited research has taken place into studying the sustainability issues of tourism impacts on their built environment. Understanding the current state of development, changes, impacts, and the underlying factors and pressures is crucial for achieving the sustainability targets in a wider frame. This paper aims to develop a framework to investigate the process of the tourism-induced urbanization and assess it towards the sustainability of the built environment. It seeks to will address the sustainability issues of the built environment of the tourist cities which have been evolved to provide spaces for consumption of pleasure. A set of indicators is assembled from tourism-urbanization theory, physical carrying capacity studies, and sustainable tourism indicators developed by World Tourism Organization. They are structured based on evaluative procedure inspired by DPSIR model.

**35950** 14:30-15:00 | Room 505 (5F)

#### *Establishment and Applied Research on Small Island Eco-Security Assessment Model*

Han-Shen Chen, Chung Shan Medical University, Taiwan

Because of the fragility of island ecosystems, island tourism development plans must be thoroughly evaluated by considering the sustainability of the associated ecology, economy, and society. This study evaluated the ecological footprint (EF) (demand) and ecological capacity (supply) of Liukiu Island in various periods by using the EF model, which was developed on the basis of the theory of ecosystem services. Second, we established an indicator for evaluating eco-security to estimate the eco-security of Liukiu Island. In particular, we estimated the ecosystem service and eco-security of Liukiu Island, and the estimation results can serve as references for the responsible agencies to maintain a balance between ecological preservation and tourism development. The empirical results are outlined as follows: 1) The total ecosystem service value of Liukiu Island increased from TWD\$119.96 million (TWD\$ = Taiwan Dollar; 1 US\$ = 32 TWD) in 2010 to TWD\$163.52 million in 2015, and the ecosystem service function is continually improving; 2) the total EF per capita of Liukiu Island increased by 6.24-fold from 0.5640 gha/person in 2010 to 4.0845 gha/person in 2015; and 3) the ecological pressure index increased from 0.30 in 2010 to 2.28 in 2015, indicating that tourism and recreation development gradually increased the pressure on the ecosystem, reduced the eco-security level, and severely damaged the environment, thereby threatening the function and structure of the ecosystem.

# Saturday Session III

## 13:30-15:00 | Room 506 (5F)

### Economics & Management

#### Session Chair: Shu-Yu Cheng

**35031 13:30-14:00 | Room 506 (5F)**

#### *Eastern and Western Innovative Business Alliances: From the Perspective of Online Transportation Network Companies in China*

Chih Kang Huang, National Quemoy University, Taiwan

Tengyi You, National Quemoy University, Taiwan

China has garnered the attention of businesses from various countries because of its enormous economic market of over 1.4 billion potential customers. Particularly from 2007 to 2011, the Chinese economy grew at a substantial rate, prompting investments by businesses worldwide. However, this has led to the saturation of the Chinese market, inducing innovative entrepreneurship. For example, Didi Chuxing, a Chinese online transportation network company (TNC) that emerged in 2012, has received the support of Apple and various Chinese businesses and flourished in the Chinese market, where even Uber, a global online TNC, has experienced difficulty entering the market. The attractiveness factors of Didi Chuxing therefore merit further investigation.

**35508 14:00-14:30 | Room 506 (5F)**

#### *From the Battlefield to the Tourist Attraction – Investigating the Changes of Paternalistic Style of Leadership in Kinmen*

Mei-Chen Yeh, National Quemoy University, Taiwan

Neng-Huei Lee, National Quemoy University, Taiwan

Chao-Ling Chen, National Quemoy University, Taiwan

Yan-Hui Xu, National Quemoy University, Taiwan

On an offshore island of Kinmen, where intensive artillery fire from across the Strait had rained and there remains a sharp look of place of battle, was stationed by troops of nearly a hundred thousand men at a beginning stage. Owing to the commodity and monetary control by the Government, more commodities were needed than supplied, and the commodity prices were set by vendors freely; that was an incentive strong enough for almost every local house to become a shop. Each of those small shops was individually run by a family. Then, after the number of troops became smaller and smaller in the context of mitigated political tension across the Strait after the lift of martial law, tourists follow. They keep coming to see this place that was once a battlefield and to feel the local culture shaped by and having survived warfare. There are many enterprises from Taiwan introducing modern business modes to Kinmen, and impact these shops operating in the traditional way. The owners of the local traditional enterprises run predominantly in paternalistic style of leadership, including leading by kindness, by moral and by authoritarianism. We thus conducted a questionnaire survey, targeting the businesses in Kinmen, and also employed secondary data gathering, to investigate the paternalistic style of leadership in the small and medium businesses there. The findings hereof will assist Kinmen's business leaders in making their decisions in leadership and serve as references in increasing business performances.

**35558 14:30-15:00 | Room 506 (5F)**

#### *From Confrontation to Exchange: Evolution of Coastal Management Around Kinmen*

Shu-Yu Cheng, National Quemoy University, Taiwan

Neng-Huei Lee, National Quemoy University, Taiwan

Hsing-Kuo Wang, National Quemoy University, Taiwan

Mei-Chen Yen, National Quemoy University, Taiwan

Yan-Hui Xu, National Quemoy University, Taiwan

Kinmen was recovered to the Republic of China after the War II, and enforced the martial law at 1948. Then a 40-year confrontation across Taiwan Strait began. During the period of martial law implementation, people on both sides of the Strait ceased exchanges and the coastal management around Kinmen was in the hand of the military. In 1992, the martial law was lifted and the interactions between the people across the Strait resumed. Thus the coastline of Kinmen became open, the duty of management of Kinmen coast was transferred from the military to the Coast Guard. The R.O.C. Coast Guard charged with law enforcement on the coastal waters, marine affairs, and maritime services as an executive agency of coastal management. In the area of Kinmen owing to its vicinity to the mainland of China. Thus Chinese fishermen often fish cross the border. Also find a number of businessmen of China get windfall profits by illegally excavate sand in Kinmen coastal waters give to constructing the Xiang-An Airport on Dadeng Isle. In order to prevent unlawful and banned acts, the coastal administrators on both sides of the Strait are beginning to develop a model of joint law enforcement. This study, with analysis of secondary data, complemented by in-depth interviews, examined the recent cooperative mode of cross-Strait coastal management. Herein we also conducted interviews with Chinese who stayed in Kinmen and violated regulations or laws, to understand their motives in order to identify really effective measures of coastal management.



# Saturday Session III

## 13:30-15:00 | Prokofiev Hall (2F)

Politics, Public Policy, Law & Criminology

Session Chair: Maria Marczevska-Rytko

**36243** 13:30-14:00 | Prokofiev Hall (2F)

*New Consensus on Archipelagic Sea Lane Passage Regime over Marine Protected Areas: Study Case on Indonesian Waters*

Maria Maya Lestari, Universitas Indonesia, Indonesia

Indonesia's Archipelagic Sea Lanes (ASLs) are the routes of navigation that used to pass through the archipelagic waters and territorial seas of Indonesia. Every state has right of passage through the ASLs. As it is set out in the United Nations Law of the Sea Convention 1982, every foreign ship passing through the ASLs is using the normal mode and unobstructed navigation. As protection of the marine environment is growing, the practice of normal modes and unobstructed navigation will no longer be the same. The fact that Indonesia's ASLs are overlapping with the areas protected under the world Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF), Indonesia and international community have a common responsibility to protect and conserve such areas while maintaining the right of ASLs at the same time. This study concludes that concept of normal mode and the unobstructive passage is irrelevant for today because the impact of the establishment of the CTI-CFF should follow by special treatment for international navigation when crossing the Indonesia ASLs area. This special treatment is imperative because of ship speed, machine, ship propulsion, sea flow, junk ship will damage ecosystem of coral reefs and potentially to disrupt sensor of highly migratory fish like whale and dolphin. Therefore, it is argued that a new consensus and code of conduct for right of passage through Indonesia ASLs is required to facilitate both of international interests.

**35667** 14:00-14:30 | Prokofiev Hall (2F)

*National Referendums in Croatia and Montenegro: Conditions and Results*

Maria Marczevska-Rytko, Maria Curie-Skłodowska University, Poland

The aim of the presentation is to analyse national referendums in two post-Yugoslavias states: Croatia and Montenegro. In relation to Croatia I would like to analyse 3 referendums: independence referendum (1991), EU membership (2012) and constitutional referendum. In relation to Montenegro I will try to analyse 2 referendums: the first independence referendum (1992) and the second independence referendum (2006). I would like to compare the formal basis, conditions and results characteristics for both countries.

**35892** 14:30-15:00 | Prokofiev Hall (2F)

*Social Justice, Concession Regime and Local Politics in South Sumatra, Indonesia*

Vegitya Ramadhani Putri, Sriwijaya University, Indonesia

After two decades successfully improving mangrove forest to be productive rice fields, peasant communities in Air Sugihan Districts, South Sumatera, Indonesia, must be threatened by the excessive plantations' expansion through 42,000 hectares in their region. At the end of the 1970s, it was former mangrove forest which is the forest then converted to be settlement and farm field of transmigrants. Settlers' struggle to survive and develop these deep mangrove environments had been recorded in fruitfully ethnographic reports. Since 2005, plantation enterprises got the legal concessions from local government – by the legal process that seems collusive. This injustice situation would challenge the principle of social justice. One by one villages must be surrendered by many modus of land acquisitions. Recently only one village "still" has rice fields: Desa Nusantara. Recently, the village is facing many problems, both internal (such as local conflict among villagers, food shortage scarcity) and external (such as facing arbitrary actions of officials and companies). The paper that summarized from three years field research report will examines how shrinking rice fields happens accordingly with massive expansion of plantations – yet its impacts on local food security, how the destructive works of concession regime towards social justice's deficits, how those situations remain divided communities in many villages – both pros and cons toward the concessions, and how its accumulation configures local politics.

# Saturday Session III

## 13:30-15:00 | Schumann Hall (2F)

### Cultural & Media Studies

#### Session Chair: Satidchoke Phosaard

**35828** 13:30-14:00 | Schumann Hall (2F)

*Factors Predicting Intention to Use Social Network among Buddhist Monks in Bangkok*

Saranthorn Sasithanakornkaew, Kasetsart University, Thailand

This research study has the following objectives: 1) To study the correlation between perceived self-efficacy in using technologies, perceived usefulness, perceived ease of use, subjective norm and intention to use social network sites among Buddhist monks; 2) To study factors that affect the intention of the monks to use social media networks. The sample group of this research consists of 400 monks in Bangkok. The research methodology involves questionnaires used in collecting data, analysis of data through the statistical methods of frequency tabulation, percentage, mean, standard deviation, Pearson product-moment correlation coefficient, and multiple regression analysis. It was found that the perceived self-efficacy in using technologies, perceived usefulness, perceived ease of use and subjective norm have a positive correlation to the intention to use social network, with statistical significance at the 0.05 level. And all the factors have influence over the intention to use social network, with statistical significance at the 0.05 level. All the four factors jointly explain the variation in the monks' intention to use social network for 44 percent.

**35937** 14:00-14:30 | Schumann Hall (2F)

*Media Communication in Enhancing the Effectiveness of Knowledge, Attitude and Motivation for Farmers' Adoption of Agricultural Innovation in Yogyakarta, Indonesia*

Retno Dwi Wahyuningrum, Indonesia Agency for Agricultural Research Development, Indonesia  
Gunawan Gunawan, Indonesia Agency for Agricultural Research Development, Indonesia

Effects of communication media influence on the adoption of innovations by farmers are very diverse. This study aimed to test the effectiveness of print media, audio and audiovisual on knowledge, attitudes and motivation of farmers' adoption of chicken farming in the Yogyakarta Province. The study was conducted in the district of Sleman and Bantul regency in November to December 2014, and the 171 farmers interviewed were randomly selected. Interviews were conducted using a questionnaire containing 20 questions about knowledge, 20 statements about attitude and the 20 statements about motivation for innovation adoption. Data on attitude and motivation were processed into a Likert scale, then tested for validity and reliability. Differences in the level of knowledge, attitudes and motivation were tested by ANOVA and then regression tested due to determine the influence of age, gender and level of education on knowledge, attitude and motivation adoption. Printed media are significantly the most effective in providing the knowledge, attitude and motivation adoption compared to audio and audio-visual media. Education-level factors influence the attitude of the media audience audio and printed media audience knowledge. They also have an effect on the education level of knowledge, attitudes and motivation adoption of audio-visual audience. Therefore, in the dissemination of agricultural innovations printed media should be used.

**35879** 14:30-15:00 | Schumann Hall (2F)

*The Naked Truth of the Pornographic Market and Consumer Behaviors in Thailand*

Satidchoke Phosaard, Suranaree University of Technology, Thailand  
Nuenghathai Khoponklang, Suranaree University of Technology, Thailand

This study aims to investigate the market of a proliferate type of media, pornographic media, which is still illegal in Thailand. It employed mixed methods gathering 1,600 surveyed samples. The investigation includes overview of market environment, consumer, media and behavioral dimensions. Several figures are different among demography. The results reveal an estimation of 230 million US dollars of the pornographic and closely-related industry market size. Viewers mostly watch pornographic media over the internet since it is convenient. The main uses of pornographic media are for catching up on the trend of accidental released sexual acts of well-known persons, relaxing and masturbating. The top factors for choosing a pornographic media are reputation, looks, and builds of the persons in the media. Thai pornographic viewers prefer Japanese and Asian actors. They tend to like story-integrated acts rather than pure sexual acts. Viewers are more likely to watch the pornography alone in a private room for viewing quality and privacy. The study found out that even though Thai people watch pornography regularly, they rarely pay for it. For people who are willing to pay, they usually spend less than 30 US dollars per month but sometimes much higher. The majority of Thai people nowadays greater accept sexual permissiveness and are willing to legalize the pornographic industry. The study is a pathway to properly steer the pornographic market and social mechanism to be better harmonized in this hypocritical country.

# Saturday Session IV

## 15:15-16:15 | Room 501 (5F)

### Aging & Gerontology

#### Session Chair: Alice Ming-Lin Chong

**35279** 15:15-15:45 | Room 501 (5F)

##### *Redefining Old Age*

Sergei Scherbov, International Institute for Applied Systems Analysis, Austria

Warren Sanderson, Stony Brook University, USA

Most studies of population aging focus on only one characteristic of people: their chronological age. For example, the Old Age Dependency Ratio categorizes people as "old" at age 65, regardless of whether they were living 50 years ago or are likely to be living 50 years in the future. But 65-year-olds today generally have higher remaining life expectancies and are healthier than their counterparts in previous generations. Age-specific characteristics vary over time and place. Focusing on only one aspect of the changes entailed in population aging but not on all the others provides a limited picture that is often not appropriate for scientific study or policy analysis. The presentation is devoted to new ways of measuring aging that more accurately represent the real world. It will be shown that once more adequate measures of aging are used past aging looks very different and in countries with high life expectancies almost no aging was observed. Future aging trends look much less gloomy when new indicators of aging are used compared to traditional approaches. The recently developed characteristics approach for the study of population aging will be introduced and used in evaluating differences in aging across space and time. The main idea of the approach is the conversion of different characteristics that reflect people's physical, cognitive or health conditions to a single metric. The hallmark of the approach is the consistent use of changing characteristic schedules together with changing age structures, regardless of the exact way in which the two are combined.

**36792** 15:45-16:15 | Room 501 (5F)

##### *Age, Gender and Fields of Study: Do They Affect the Attitudes of Hong Kong University Students Toward the Elderly?*

Alice Ming-Lin Chong, City University of Hong Kong, Hong Kong

The study: The present cross-sectional survey aimed to examine the attitudes toward the elders among 1,038 Hong Kong university students of various Major studies and to identify the factors affecting such attitudes. Three scales were used, namely the Kogan's Attitude toward Older People Scale (KAOP), the Aging Semantic Differential (ASD) and the Facts on Aging Quiz (FAQ1). Findings: The results indicate that students generally reported a neutral to slightly positive attitude toward older people. Yet, by interpreting incorrect responses of FAQ1, it was found that 40% of respondents had some negative bias, e.g. they believed that most elders had financial difficulties, lived unhappy lives and were unable to adapt to change. Such bias was found to be associated with their gender and educational background, and might make them less willing to interact with the elders. Bivariate correlation analyses revealed a significant, though weak, positive association between knowledge on aging and attitude. Hierarchical linear regression models showed that being female or studying either social sciences or healthcare studies were the best predictors for positive attitudes toward elders, whereas being male or studying either business or sciences were associated with higher prejudice and negative attitudes toward older people. Discussion: The study suggests that if youngsters have better knowledge about aging, they will have a more positive attitude and less bias towards senior citizens. It is therefore suggested to include teaching of aging issues in every major study.



# Saturday Session IV

## 15:15-16:45 | Room 503 (5F)

### Environmental Sustainability & Human Consumption: Human & Life Sciences

Session Chair: Dwight Jason Ronan

**37647** 15:15-15:45 | Room 503 (5F)

#### *The Path Towards Sustainable Development*

Indu Gupta, Paryavaran Shiksha Prasara Samiti, India

Development is the process of change in a current system for comfort. The outcome of development can be positive or negative. Only development concept failed and produces damage to lives and its consequences are natural calamities and terrorism. So the whole world is searching for the path to sustainable development. Religious values are a strong denominator against which all other values could be equated and is a trusted instrument. Different religions advocate for Nature, Spirituality and sustainability. Hinduism contains numerous references to the worship of divine Nature in Vedas, Purans. Buddhism says for survival mankind has to depend on Nature for his shelter, food, clothing, medicine and other requisites. Buddhism teaches us love for Nature and nonviolence. Islam's Quran says that Allah is the creator of the world. They are told to look after the world for Allah and for future. Christianity teaches us to spread love for Nature, peace and nonviolence. It also teaches us to help poor people. According to the theory of Jainism, the five elements of Nature, Prithivi, Jal, Agni, Vayu and Akash, are living creatures and must be treated as living beings. So every religion advocates for the protection of Nature, natural elements and biodiversity conservation. Gandhiji said, "Earth provides enough to fulfill man's need but not man's greed." For sustainable development, reduce, reuse and recycle is the best concept. New social ethics should be inculcated among children both in school and at home emphasizing concern.

**35914** 15:45-16:15 | Room 503 (5F)

#### *The Application of One Health Approach for Household Environment Practice of Dengue Prevention and Control in Phetchaburi Province of Thailand*

Wachirawit Parunawin, ASEAN Institute for Health Development, Mahidol University, Thailand

Cheerawit Rattanapan, ASEAN Institute for Health Development, Mahidol University, Thailand

Orapin Laosee, ASEAN Institute for Health Development, Mahidol University, Thailand

Dengue remains a major public health problem in Central region of Thailand. Due to the absence of dengue vaccination, vector control is the only measure to prevent dengue outbreaks. The key element of dengue prevention is household environment practice, preventive behaviors of household members and community participation through collective action by a multidisciplinary approach as One Health principle in dengue prevention and control are key successful elements. This study aim will be to determine household environment practice of one health application in community among household members for dengue fever prevention and control in highest endemic area of Thailand. Associations between environmental factors, dengue knowledge, attitudes and preventive behaviors of household environment practice based on one health principle and collaboration of community members and household risk of dengue will be conducted by questionnaire. One dengue epidemic province will be selected from central region of Thailand to conduct research. For data analysis, descriptive statistic, chi-square test and multiple logistic regressions will be employed to identify the predictor of household environment practice. Moreover, data from qualitative analysis will feed back data to the community and apply to support and policy recommendation to promote collective action in community within one health principle of household environment practice to prevent and control dengue fever in the central region of Thailand.

**35180** 16:15-16:45 | IAFOR Scholarship Recipient | Room 503 (5F)

#### *Farmers' Perceptions and the Extent of their Adoption of Measures to Manage the Coconut Scale Insect Outbreak in Southern Luzon, Philippines*

Dwight Jason Ronan, Mekong Institute, Thailand

A massive outbreak of coconut scale insect recently hit one of the most coconut-productive regions in the Philippines. The rapid spread and wide scale damage caused by the invasive species pushed farmers to adopt various emergency control measures. The study examined the extent of adoption among farmers and their perceptions towards these measures based on a survey of 91 farm households in Tiaong Municipality, Quezon Province. The study found out that only a few farmers fully adopted the measures recommended by authorities. Reasons for low adoption include weak coordination and institutional support as well as strong opposition from some farmers especially on chemical and biocontrol measures. Furthermore, qualitative data gathered from the field indicate a general lack of interest among farmers to control the invasive CSIs. T-tests showed significant differences between the perceptions of users and non-users of inorganic insecticides especially on its perceived risks on health, environment, and profit. On the other hand, farmers who decided to adopt biocontrol measures consider the measure to be highly compatible while non-users view the otherwise. Users and non-users of other measures have relatively similar perceptions. The study shows that farmers' perceptions towards new practices and technologies play a significant role in their decisions whether to use or not use these innovations. Based on these findings, the study recommends authorities to carry out more sustainable and long-term strategies to manage CSIs, improve IPM and ISM services delivery in the country, and strengthen efforts to support Filipino coconut farmers.

# Saturday Session IV

## 15:15-16:45 | Room 505 (5F)

### Environmental Sustainability & Environmental Management

Session Chair: Cherry Myo Lwin

**37408** 15:15-15:45 | Room 505 (5F)

#### *Development of an Estimation Method of Energy Consumption and CO<sub>2</sub> Emissions for Regional Travel Transportation*

Ruixi Zhao, Waseda University, Japan  
Junichi Tabe, Waseda University, Japan  
Hiroshi Onoda, Waseda University, Japan

Energy consumption of transportation leads to a large amount of CO<sub>2</sub> discharges. Recently, transportation in tourism draws attention. It is reported that the number of foreigners visiting Japan is increasing; there were 8.36 million in 2012 while the total was 19.73 million in 2015. Hence, the environment issues like energy consumption and resource in tourism cannot be ignored. With the aim of achieving tourism sustainability, it is required that tourism ought to be able to promote regional economy and make a contribution to building a low-carbon society. This study will focus on energy consumption of tourism transportation. The case study is going to be conducted in the city of Chichibu in Saitama Prefecture, Japan, because this area has regional revitalization needs of renewable energy and tourism development. Previous studies on tourism transportation mainly focus on movement distances and vehicles. However, studies on energy consumption and CO<sub>2</sub> emissions during tourism transportation have yet to be seamlessly achieved. In this study, with the purpose of developing a suitable estimation method for energy consumption and CO<sub>2</sub> emissions during tourism transportation in a region, the Regional Economy Society Analyzing System (RESAS) is going to be applied for analyzing the regional fluid population and movement. This method will help to analyse the current situation of regional tourism transportation and provide mitigation plans. Furthermore, it will contribute to create the most optimum mobility including movement distances, population and time.

**35465** 15:45-16:15 | Room 505 (5F)

#### *Feasibility of Using Inherent Inhibition to Achieve Reduced Sludge Production in a Membrane Bioreactor (MBR) For Treating High Strength Wastewater*

Yishuai Jiang, Nanyang Technological University, Singapore  
Choon Ping Lim, Nanyang Technological University, Singapore  
Muhammad Zulhilmi Bin Rahmat, Nanyang Technological University, Singapore  
Wun Jern Ng, Nanyang Technological University, Singapore

Wastewater treatment technologies (WWTs) relying on pollutants mineralisation are not necessarily environment-friendly from the holistic perspective. The excess sludge produced by such WWTs also requires additional treatment before disposal and hence incur costs. Nitrification-based processes can save up to 60% of the aeration energy consumed and has reduced sludge production. A stable nitrification process relies on promoting the activities of ammonium-oxidizing bacteria (AOB) over nitrite-oxidizing bacteria (NOB). This study investigated the feasibility of using a membrane bioreactor to achieve stable partial nitrification (PN) in a synthetic high strength wastewater (HSWW), with reduced sludge production. An aerobic MBR (AMBR) was inoculated with an AOB-enriched culture, and operated at 35°C; hydraulic retention time (HRT) 12 h; pH 7.8-8.5; and sludge retention time (SRT) 58 days. The maximum specific ammonia conversion rate reached was 2.16 kg N/kg VSS.d. Average MLVSS was 194.6 mg/L, lower than what is usually observed in MBRs operated at long SRTs. The trans-membrane pressure (TMP) also indicated slow onset of membrane fouling. qPCR results showed that the AOB population was on a decreasing trend (31.9% to 17.4%) when free ammonia (FA) was around 33 mg NH<sub>3</sub>-N/L. When the pH range was changed to 7.8-7.9, nitrification increased from 17.3% to 28.7%, and AOB population increased to 33.5%. PN was achieved with minimal sludge production. Preliminary results suggested that FA inhibition could have played a role in reducing the sludge production.

**36772** 16:15-16:45 | Room 505 (5F)

#### *The Implications of Scenarios for Phosphorus Flow from Agriculture and Domestic Wastewater in Myanmar*

Cherry Myo Lwin, Ritsumeikan University, Japan  
Mari Murakami, Ritsumeikan University, Japan  
Kyaw Nyunt Maung, Ritsumeikan University, Japan  
Seiji Hashimoto, Ritsumeikan University, Japan

Agriculture, livestock and fishery can be considered as the main backbones of economy in Myanmar. However, phosphorus (P) used for cultivation and domestic sewage from rural and urban areas is the major source of organic pollutants in Myanmar coastal waters resulting severe environmental damage from eutrophication. Moreover, related concerns have arisen about the rapid depletion of P resources. Therefore, elucidating the amount of P flow into bodies of water is important to ascertain its environmental effects and to formulate methods for the sustainable management of P resources. This study was conducted future trends (2010–2100) of P flows from agriculture and domestic wastewater based on scenarios of numerous parameters that include economic development, population, livestock demand, harvested areas, etc. in Myanmar. Results reveal that P flows from agriculture to the hydrosphere occurred at an annual rate of between 55 Ktpa (thousand tonnes per annum) in 2010, but they are expected to be between 129 Ktpa to 142 Ktpa in 2100. Estimated P flows from domestic wastewater is 15 Ktpa in 2010 and 19 Ktpa in 2100. Urban population growth is a main factor contributing gradual increase in P flow from domestic wastewater but since the most resulted P flow is from agriculture, it indicates that marked reduction of fertilizer use is necessary. Recovery of P from sewage sludge can substitute for a small share of fertilizer use. This research provides a core for the appraisal of P utilization and facilitates determination of important objectives for sustainable P management in Myanmar.

# Saturday Session IV

## 15:15-16:45 | Room 506 (5F)

### Economics & Management

#### Session Chair: Tzu Ni Chen

**35625** 15:15-15:45 | Room 506 (5F)

#### *A Research on the Relationships among Role Pressure, Personality Traits, and Job Satisfaction-Personnel Employees at National Universities in Taiwan*

Ya-Wen Su, National Quemoy University, Taiwan

Cheng-Shih Lin, National Quemoy University, Taiwan

The national universities in Taiwan are rather distinctive from the aspect of characteristics, for example, the staff including academic and administrative categories which fit with various compliance systems. Furthermore, Taiwan governments have been attempting to reform the administrative policies on military and public servants, and to revise the labor-related policies. All the changes have cast severe pressure on personnel employees at national universities. This research aimed to explore the effect of role pressure on job satisfaction, and to examine whether personality trait acts as a moderator in between. We targeted the personnel employees at the 45 national universities in Taiwan and used Linear Regression Analysis to conduct the data analysis. This research contributed twofold: firstly to suggest the personality traits as effective reference at recruiting employees; secondly, pressure adjustment should be included in the training designs.

**35952** 15:45-16:15 | Room 506 (5F)

#### *Financial Crisis Event Study in the Game Industry*

Bi-Huei Tsai, College of Management, Taiwan

Wei-Jer Lee, College of Management, Taiwan

This paper explores Otaku Economic theory in gaming industry. This paper selects events about no-pay leave events which increase employers' free time to start "home leisure" consumption, and become "home body" which we often hear in the mass media. The phenomenon is called "Otaku Economy". This study calculates the abnormal returns during the no-pay leave periods after the financial crisis event of 2008 in the Taiwanese listed video game companies. In mid-September 2008, after Lehman Brothers went bankrupt, financial crisis gradually occurred in many large European and US banks. Global financial markets were turbulent, the economy continued to decline in Taiwan during this financial turmoil and no-pay leave appeared. Video games, which are easily to be obtained for office workers, are low-cost on leisure and can be directly played at home without additional transportation fees required. As a result, video games were certainly favored during the no-pay leave periods. Thus, the operational revenues of game industry increase during the no-pay leave periods, which stimulated the increase in the stock prices of the game industry. This study discusses whether specific no-pay leave events led to abnormal returns on game industry during the financial crisis. The investigation results show significantly positive returns during the financial crisis periods which elaborates the Otaku economy theory.

**35916** 16:15-16:45 | Room 506 (5F)

#### *The Effect of Brand Confusion on Consumers' Decision: A Case of Sanitary Napkins Products*

Tzu Ni Chen, Ming Chuan University, Taiwan

Shu Fen Yu, Ming Chuan University, Taiwan

Brand confusion takes place when consumers misidentify a brand A as a different brand B. Its consequence may change consumers' brand decisions, causing them to purchase the wrong brand, brands in promotion, or even postpone the purchase, which is harmful for brand revenue. Literature has showed that product similarity is one of the most common causes for brand confusion to occur in a mature market. A survey from Technavio demonstrates that the global sanitary napkin market was dominated by the menstrual pads segment with approximately 80% of the market share in 2015. Focusing on similarity confusion, this study aims to examine how individual differences in product involvement (brand cognitive involvement, brand affective involvement, product cognitive involvement, product affective involvement), gender and age influence their purchase decision in sanitary napkins products. A survey was conducted at five metro stations in Taipei. The method of stratified proportional sampling was used to increase the representative of the population in Taipei. 600 valid questionnaires were obtained. The study results demonstrate that most consumers showed brand confusion with sanitary napkins products due to product similarity. Males, younger consumers and consumers with lower levels of product involvement tend to have higher level of confusion than their counterparts. Furthermore, their coping strategies vary depending on their level of involvement and brand confusion. Consumers with higher levels of brand confusion tended to postpone their purchase decision. The higher the level of product involvement, the more likely consumers are to have information searching behavior.



# Saturday Session IV

## 15:15-16:45 | Prokofiev Hall (2F)

### Sociology

Session Chair: Shun-Hing Chan

**35927** 15:15-15:45 | Prokofiev Hall (2F)

#### *The Development of Salaya through Agricultural Livelihood Transformations*

Tawan Wannarat, Silpakorn University, Thailand

A number of recent studies similarly indicated dramatic change in traditional rural society: subsistence farming was not the main way of life in rural Thailand anymore. Agricultural production aims to produce for sales at market rather than for subsistence. Salaya was one of those rural areas transformed over recent decades as a consequence of the expansion of urbanization, the decrease of agricultural land, the mobility of labour and migration. The research aimed to study economic transformation – changing in way of living in a case study of Salaya – in the peri-urban area close to Bangkok, Thailand. The research applied a case study approach through observation, participation and documentation. The study found out that there are changes in people's livelihood in various types of income earning, which led to a decrease in the number of farmers and agriculture areas, and the emerging of new styles of entrepreneurs who transform themselves from agricultural labour. As a result of the process, the alteration in living of the residents of Salaya was regarded as crucial in promoting basic understanding of further convoluted issues such as the shifts in people's attitudes and social relationships.

**35429** 15:45-16:15 | Prokofiev Hall (2F)

#### *Innovative Practices of Christian Activism in Hong Kong's Umbrella Movement: Perspectives from Social Movements and Culture*

Shun-Hing Chan, Hong Kong Baptist University, Hong Kong

The Umbrella Movement in 2014 was an important event in the history of democratic movements in Hong Kong. Christians were an integral part of the Occupy Central with Love and Peace Movement and the subsequent Umbrella Movement. Using the theories of social movements and culture, this paper examines the innovative practices employed by Protestant groups competing for Christian representation and the language of social justice in response to church leaders who disputed the movement. The refutations by the Protestant groups were also acts of opposition in reaction to the Chinese Government's control of universal suffrage. The case of Protestant groups in the Umbrella Movement is a good example in exploring cultural analyses of social movements in the context of Asian cities and countries.

**35381** 16:15-16:45 | Prokofiev Hall (2F)

#### *A Research on the Relationship between Ethical Climate and Organizational Performance in Charity: The Moderating Role of Family Conflicts*

Chia Jung Lee, National Quemoy University, Taiwan

Hsing Kuo Wang, National Quemoy University, Taiwan

Charitable organizations possess their own unique social missions and beliefs; most of them aim to serve and help those who cannot be assisted by formal policies. This research defines charitable organizations as legal organizations officially recognized by governments which provide money, actual goods, and labor to the needy. In this research, we choose the charitable organizations in Taiwan as research targets. We expect to have depth-interviews with 4–6 organizations. The research explores the relationship between ethical climate and organizational performance with the moderating effect of family conflicts. Past research found that passionate volunteers are important assets within charitable organizations; furthermore, the ethical climate influenced organizational beliefs and eventually affected the members' ethical decisions and behaviors. Moreover, participating in charitable activities is equivalent to taking on extra work and possibly sharing family resources (namely, time, energy, and money). Hence, this research will also explore the impact of family conflicts on ethical climate and organizational performance. The expected findings include the fact that ethical climate has a positive influence on organizational performance and family conflicts have moderating effects on the relationship of ethical climate and organizational performance.

# Saturday Session IV

## 15:15-16:45 | Schumann Hall (2F)

### Art & Design

Session Chair: Elena Raevskikh

**35861** 15:15-15:45 | Schumann Hall (2F)

*Epistemology of Sociology of Art*

Poonam Gandhi, FLAME University, India

The discipline of sociology of art was formalized in the twentieth century and sociological approaches to examining arts are as recent as the early nineteenth century. This paper examines the developments in the field of sociology of art and an attempt is made to review the contribution of contemporary sociologists to understanding the relationship between art and society. It also critically assesses the theoretical inputs contextualizing the significance of the field in contemporary times. This research paper highlights the significance of applying sociological approaches to art forms and the production of knowledge thereof. The attempt is to address the following questions: How has the discipline contributed to the knowledge base on art and society relationship? What are the methodological issues that have been debated upon? Which are the current theoretical approaches likely to provide insights into the elusive world of artists? Howard Becker's *Art Worlds* is a seminal contribution to the field, which hitherto had the tendency of examining art through an elitist lens. Becker's "art as a collective activity" is acquiescent to studying art sociologically. Bourdieu's "habitus" is another influential and relevant concept which refers to the cultural capital. The concept includes habits, skills, and dispositions that people possess as a result of their life experiences. This paper is based on secondary sources and draws attention to the significant contributions of sociologists and social scientists to the field of sociology of art. This research paper facilitates contextualizing art and society relationship through sociological investigations of varied art forms.

**35528** 15:45-16:15 | Schumann Hall (2F)

*Resilient Living Environments: Identifying a Design Approach to Creating Housing Suited to Culture and Context*

Shenuka de Sylva, Victoria University of Wellington, New Zealand

Arnaud Leurquin, Victoria University of Wellington, New Zealand

This paper's focus is on identifying a system for devising and implementing a culture and context specific planning and design approach to creating the right low cost housing solutions for sites prone to flooding and ground instability. Two sites are explored, one in Sri Lanka and the other in Nanjing, China. The paper first presents the culture and context specific approach for each location, and then compares and analyses these. While the one for Sri Lanka takes a more direct design practice focused approach, that for Nanjing is more theoretical and academic. Each approach is defined by the designer's own cultural background, and knowledge and understanding of the local context, culture and people. The intention of this comparison is to highlight the uniqueness of each contextual situation and the significance of having a specific solution, appropriate to site, and driven with awareness of the designers own limitations and strengths. The solutions presented are compared for similarities and differences and then analysed for potential for adaptability to the other sites, predominantly from an environmental suitability perspective, and in this sense the ability to transfer the approach and solution to another contextual environment.

**37564** 16:15-16:45 | Schumann Hall (2F) | IAAB Presentation

*The Place of Artistic Innovation: Local Area Characteristics and Arts Growth In Arles*

Elena Raevskikh, French National Center for Scientific Research, France

Located in the south of France, the city of Arles has a rich and diverse history: the impressive Roman monuments get along with the Medieval heritage, the Van Gogh paintings prototypes and the Camargue natural scenery. However, after several economic crises during the 1980s–2000s, Arles is currently one of the poorest French agglomerations, with a significant unemployment rate and a low-income household. Since 2010, the Swiss-born art patron Maja Hoffman has bet to enhance the economic development of Arles by transforming the city into a new place of artistic innovation. The LUMA Foundation designed by Frank Ghery will open in 2018 in the old industrial district of Arles and will become one of the most ambitious arts and artistic innovation hubs in France. The new iconic structure is called to create a "Bilbao effect" by attracting to Arles international economic resources, human capital and new investments. This paper brings together ethnographical, cartographical and statistical methodologies to analyze the ways in which the LUMA Foundation impacts the Arles urban area. How does the dynamic interplay between economic and political context, institutional arrangements, and social networks affect the urban transformations? How do the new cultural policies impact the territorial attractiveness? What factors favor or create obstacles for the social assimilation of artistic innovations by the target population?

# Saturday Spotlight Presentations

## 17:00-18:45 | Room 501 (5F)

**37161 17:00-17:30 | Spotlight Presentation | Room 501 (5F)**

*Applying a Rights-Based Approach in Investigating Repatriation of Fukushima's Nuclear Refugees*

Jane Singer, Kyoto University, Japan

The complex human and natural disaster – earthquake, tsunami and nuclear meltdown – that occurred on March 11–13, 2011, caused the evacuation of 180,000 residents of Fukushima prefecture, Japan. Today, more than 80,000 compulsory and voluntary evacuees remain outside their original communities. For some of the original 11 affected communities the evacuation order has been lifted after extensive decontamination efforts, and residents are being urged to return. Yet despite government privileging of rapid repatriation, as of January 2017 only 13% of the evacuees have returned to the five communities where evacuation orders have been lifted. Although residents are assured that health risks of repatriation are negligible, expressed concerns about health and safety issues and economic and social community sustainability, along with eroded public trust in official assurances, have contributed to few returning, especially young families. Few studies have been published examining the long-term economic, social and policy implications of the Fukushima evacuation experience and future prospects for repatriation. Drawing on interviews with compulsory and voluntary evacuees and focus group discussions with evacuees who have already returned to original communities, this paper applies a rights-based framework to discuss repatriation and engagement in re-articulation of long-fragmented communities.

**35965 17:45-18:45 | Spotlight Workshop Presentation | Room 501 (5F)**

*Using Mindfulness Practices to Improve Mental Health and Address Unconscious Bias*

Kamilah Majied, Howard University School of Social Work, USA

This workshop will guide participants through developing the skills to use mindfulness-based interventions to improve mental health and facilitate cross-cultural conflict resolution. The workshop will open with an overview of the broad array of international research that identifies the positive impact of mindfulness-based practices on mental health and social functioning. There will also be an overview of the literature and best practices regarding mindfulness-based conflict resolution and mindfulness-based social justice action. The workshop will contain several didactic discussions of various types of applied mindfulness practice and then guide participants through experiential activities that allow them to practice using the techniques. For example, the presenter will discuss the clinical literature and mental health practice research and describe how mindfulness is used to become aware of emotions that may be slightly outside of conscious cognition. Then the presenter will lead experiential exercises that guide participants through raising their emotional awareness and managing emotional material through diaphragmatic breathing and other mindfulness techniques. There will be an overview of how mindfulness can be used to gain awareness of bias, prejudice, and discriminatory ideas, and participants will then be guided through an exercise that allows them to explore their unconscious bias using mindfulness practice. Finally, there will be an overview of the process by which mindfulness-based interventions are used to facilitate cross-cultural conflict resolution, and participants will have an opportunity to observe and practice this process as led by the presenter.



A smiling man with glasses and a lanyard, overlaid with a dark filter.

# Sunday June 11

# Sunday Session I

## 09:00-10:30 | Room 501 (5F)

### Aging & Gerontology

Session Chair: Yuki Yokohama

**36957 09:00-09:30 | Room 501 (5F)**

#### *Young Adults' Migration and Its Impact on Health Outcomes of Elderly Parents in China*

Zhen Liu, Brown University, USA

China is aging at an unprecedented rate. Meanwhile, massive rural-to-urban migration has changed living arrangements of rural households. Due to the strict household registration system, the elderly are often not able to move to cities with their migrant children or not willing to migrate with their children to cities due to other cultural or economic reasons. However, China's long-standing weak pension system for the rural population makes the large rural elderly population remain highly dependent on their children for support. Using the 2011–2013 China Health and Retirement Study, this paper aims to answer the following questions: 1) How do migration and associated remittances affect rural elderly parents left behind in terms of self-reported health as well as psychological well-being (measured by CESD-style depression scale)? 2) Does migration affect elderly parents' well-being differently when all children migrate out in comparison to when some children remain in the origin? 3) How do community factors (public safety net programs) moderate some of the potential impact of massive rural-to-urban migration of young adults on the rural elderly left-behind? Preliminary results based on mixed-effects multilevel models controlling for community-level and household characteristics suggest that the impact of having migrant children on the elderly's physical health is limited, though remittance from migrant children is associated with improved elderly parent health. However, having all children being migrant is associated with higher levels of depression risk among rural elderly in China. Community factors such as SES and out-migration prevalence also have a significant moderating impact on elderly people's health outcomes.

**36316 09:30-10:00 | Room 501 (5F)**

#### *Activities of NGOs in the Field of Social Welfare in Asia*

Yuki Yokohama, Kanto Gakuin University, Japan

The purpose of this report is to study future development of social welfare services by NGOs in Asia. In particular, this report focuses on Hong Kong where economic activities are robust and charitable activities have been closely affiliated with China and Taiwan in recent times. Through literature research, the history of charitable activities and the relationship between the government and NGOs were analyzed based on a variety of already published documents on NGOs in Hong Kong and China. This analysis shows that in Hong Kong there was a historical circumstance in which mutual support activities among immigrants from mainland China had been actively conducted since British rule, which provided the basis for present NGOs in Hong Kong society. In contrast the social security systems and social welfare services of the Hong Kong Government are not established unlike those in Japan and most of the services are entrusted to NGOs in the private sector. In addition, in terms of the government subsidies to NGOs, it has also been revealed that the government based on the economic conditions of the time does not support all the NGOs. Against the backdrop of the falling birth rate and the aging population in Hong Kong attention should be paid to how the relationship between the Hong Kong government and NGOs and the government's social welfare policies will develop in the future. Furthermore, it is noteworthy how NGOs will change under the influence of China in the years to come.

**36909 10:00-10:30 | Room 501 (5F)**

#### *A Question of Debate: Four Pillars or Five Pillars Old Age Protection in Hong Kong?*

Gigi Lam, Tung Wah College, Hong Kong

Yuruo Yan, Southwestern University of Finance and Economics, China

Edward Jow-Ching Tu, The Hong Kong University of Science and Technology, Hong Kong

Hong Kong now adopts four pillars old age protection, which comprises a publicly managed, non-contributory and tax-financed social security system (including Social Security Allowance Scheme and Comprehensive Social Security Assistance Scheme), a funded contribution scheme (i.e. Manual Provident Fund), voluntary personal savings and public healthcare and housing services. The statistics compiled by the Government of the Hong Kong Special Administrative Region (2013), however, provided clues that the four pillars old age protection is unable to alleviate the aging of poverty. The Social Security Assistance Index of Prices compiled by the Census and Statistics Department from 1972 onwards also unanimously demonstrated that CSSA recipients assigned more than 50% of total expenditure to food. The aging of poverty calls for an urgent need to revise the outdated old age protection model. In the public consultation exercise, The University of Hong Kong (2014) introduced the additional pillar of non-contributory social pension and assistance. Conceivably, the proposed five pillars old age protection generated a contentious debate. The HKSAR government again sparked another round of public engagement exercise on retirement protection on December 22, 2015 to gauge the public's opinion about old age protection. The incessant consultation exercise disappointed most of the people because of the explicit reservations expressed by the government over the proposals. Hence, the government should abandon its narrow-minded mentality and forge cooperation amongst government, individuals and employers.

# Sunday Session I

## 09:00-10:30 | Room 503 (5F)

### Economic Sustainability: Sustainable Businesses & CSR

Session Chair: Phillip Tolar

**35868 09:00-09:30 | IAFOR Scholarship Recipient | Room 503 (5F)**

#### *Integrating Environmental and Social Sustainability in Public-Private Partnerships in Infrastructure: Focus on Effective Strategies in Asia*

Jean-Isamu Taguchi, Nagoya University, Japan

This paper investigates the inclusion of environmental and social (E&S) sustainability in Public-Private Partnerships in infrastructure (PPPs). These partnerships involve long-term and complex contracts between a public authority and private parties to deliver infrastructure services, in which the private party bears significant risks. Multilateral development agencies and international organizations, for instance ASEAN, strongly promote PPPs to achieve sustainable development. At present, international organizations' resources and guidelines, as well as the literature, focus primarily on the financial aspects of PPPs and pay little attention to the environmental and social sustainability of these projects. However, several Asian countries have effectively included E&S aspects in PPP projects or PPP legislations. Drawing on several projects in Laos, India, and Philippines, this paper analyses effective strategies that could be used to integrate environmental and social sustainability aspects into the legal and regulatory frameworks of PPPs. First, this paper investigates how sustainability issues are included at each stage of the PPP cycle, emphasizing the significance of E&S criteria in attributing the PPP project. Second, the paper highlights the tools and contractual mechanisms to enhance public participation and benefit sharing in PPPs, such as community development agreements, or community ownership schemes. These mechanisms not only increase acceptability of PPP projects by affected communities, but can also yield secondary benefits on climate change or gender policies. Based on this analysis, the paper finally suggests recommendations to integrate environmental and social sustainability, so that PPPs can become a tool to harness sustainable development in infrastructure projects.

**37234 09:30-10:00 | Room 503 (5F)**

#### *CSR Activities and Employee Perceptions in Family-Run Businesses in Eastern Thailand*

Sapanna Laysiriroj, University of Surrey, UK

Walter Wehrmeyer, University of Surrey, UK

Richard Murphy, University of Surrey, UK

Many (Thai) scholars have suggested that the concept of Corporate Social Responsibility (CSR) was introduced to Thailand by large foreign companies, many of which have active and typically formalised CSR programmes. However, family-run businesses in Thailand (FRBT) often practice a different form of CSR, driven by a desire to "give back to society", influenced by religion and culture. Previous studies have stated that CSR practices may vary between different firm types. This paper explores differences in approach to, and practices of, CSR in FRBT, in particular sectoral differences how different business sectors of FRBT practise their CSR activities and how such activities are perceived by their employees. The research is based on 2292 returned questionnaires from employees of 28 FRBs from the hotel, fruit processing, and jewelry sectors in Eastern Thailand. Overall, the results show strong appreciation of the intrinsic CSR activities with interesting gradients across 3 FRBT sectors. Perceptions of CSR practice were clustered into CSR Inactive, CSR Active, Caring, Moral Owner and No CSR. It appears that there are clear differences between the sectors, with staff from the jewelry sector appearing happier than others, likely because they appreciate the strategic intent of the CSR activities and have better awareness of the business owners' generosity. Employees from the fruit processing sector appear the most disaffected, likely because they perceive fewer CSR actions from their company.

**34833 10:00-10:30 | Room 503 (5F)**

#### *Governance Impact on Innovative Entrepreneurship Policy in Clusters and the Role of Technological Diversification in Japan: Bioenergy alongside Forestry Robotics*

Phillip Tolar, Ritsumeikan University & Graduate School of Technology Management (MOT), Japan

Shuichi Ishida, Ritsumeikan University & Graduate School of Technology Management (MOT), Japan

Kota Kodama, Ritsumeikan University & Graduate School of Technology Management (MOT), Japan

The literature draws attention to innovative entrepreneurship policy desirability (IEPD) within clusters in Japan, and views it as a necessity in governance effectiveness (GVE), in order to insure nationwide economic growth through bottoms-up technological diversification orientation (TDO), making use of forestry robotics alongside biomass and bioenergy in resource-rich rural areas of Japan that possess a satisfactory mix of materials. The primary aim of this study is to propose a framework in which the GVE indicator is associated with IEPD, and influenced by TDO. Data collected from participants in Japan were analyzed using structural equation modeling which supported the hypotheses. TDO can have a great influence on IEPD when governments are made fully aware of the firm's technological orientation in advance, thus allowing them to respond effectively. Therefore, this study offers the following contributions: 1) it advances studies that relate GVE and IEPD by showing that TDO has a significant impact on IEPD; however, the relationship between TDO and GVE could be improved by firms communicating their diversification intentions to governments in advance, thus making governments more effective; 2) it shows that the reflective model is both robust and prototypical in explaining innovative entrepreneurship policy desirability and governance effectiveness as it pertains to the diversification of technologies from the bottom up in Japan.



# Sunday Session I

## 09:00-10:30 | Room 505 (5F)

### Social Sustainability & Sustainable Living

Session Chair: Thanakarn Khumphai

**35086** 09:00-09:30 | Room 505 (5F)

#### *Understanding Corporate Social Responsibility (CSR) Among Small Businesses Using Social Capital Theory for More Socially Sustainable Policies*

Teik Aun Wong, INTI International College Penang, Malaysia

Stakeholder Theory is the dominant theoretical framework used in scholarship on Corporate Social Responsibility (CSR). This theory has its genesis from the analysis of large corporations and is suitable when applied to them. However, in the context of CSR among small business the appropriateness of Stakeholder Theory is debatable. Small businesses are structurally different from large corporations with distinct local characteristics. It is questionable whether Stakeholder Theory is adequate to satisfactorily explain the motivations and behavior of small businesses. A qualitative research on this phenomenon of CSR among small business was conducted in the Jelutong wet market in Penang, Malaysia. This field site was selected for its wide diversity of small businesses in terms of trade, ethnicity and gender of the business operators, and length of time in business. Thirty (30) semi-structured interviews were conducted and a framework of phenomenology in the analysis of the data was employed. The findings indicate that Social Capital Theory is arguably the more appropriate theoretical framework to understand CSR among small businesses in Jelutong wet market. The implications of this finding are discussed. With Social Capital Theory as the theoretical framework more socially sustainable policies are recommended to foster CSR among small businesses. Consequently the scholarship on CSR among small businesses is deepened considerably.

**37393** 09:30-10:00 | Room 505 (5F)

#### *Analysing the Affecting Factors of Comprehensive Utilizing Mineral Resources in Hubei Province, China*

Wang Yongqing, China University of Geosciences, China

Wang Laifeng, China University of Geosciences, China

The comprehensive utilizing mineral resources plays an active role in utilizing and protecting mineral resources, which is of great significance in promoting the transforming model of economic development from "extensive" to "intensive", achieving optimal allocation of mineral resources and sustainable development. Based on the survey data from nearly 3,000 mining enterprises in Hubei Province, this paper divides the influencing factors into the conditions of resources, technology of comprehensive utilization and economic incentive policies. The logistic model and OLS model are used to evaluate the influence of various factors on the comprehensive utilization. The results prove that: 1) The rate of comprehensive utilizing mineral resource is low, but there are a great potential and more improvable room for comprehensive utilization. 2) Conditions of mineral resources determine the technology of comprehensive utilization, and it is an important factor affecting the comprehensive utilizing resources. 3) The economic incentive policies and the financial fund will significantly for mining enterprises increasing the investment in comprehensive utilization. Above all, the recommendations may be made as following: 1) Increasing the scope of special projects; it will include all types of mines gradually from the point and surface to the whole. 2) Increasing investment in advanced and applicable technology, building a platform for exchange and promotion the advanced and applicable technology to improve the overall level of utilizing mineral resources. 3) Adding and reifying policies of conservation and comprehensive utilizing of mineral resource; it contains regulation or economic punishment on enterprises with low levels of comprehensive utilizing.

**37415** 10:00-10:30 | Room 505 (5F)

#### *KMUTT Sustainable University from Policy to Students' Green Heart*

Thanakarn Khumphai, King Mongkut's University of Technology Thonburi, Thailand

Suchada Chaisawadi, King Mongkut's University of Technology Thonburi, Thailand

Sustainability is one of the major challenges for current and future generation of students and staff. King Mongkut's University of Technology Thonburi (KMUTT) policy is committed to be a Green University for sustainability, providing a role model on Energy, Environment, and Safety Management Systems; to educate, encourage and promote the development of sustainability leadership "Green Heart", which become change agents for helping the community and society have a better quality of life and to strive for continual improvement. To achieve commitment, KMUTT transform their campuses into ideal environments for developing awareness and innovative solutions to problems that will improve the world for current and future generations, promoting the application of all these activities within the university and encouraging students to do their part to protect the environment and natural systems by educating and encourage them to learn outside the classroom. In 2016, KMUTT developed 2,685 "Green Hearts" to lead their sustainability activities within our university and the surrounding communities, which can help to achieve sustainability for all in the near future.

# Sunday Session I

## 09:00-10:30 | Room 506 (5F)

### Economics & Management

Session Chair: Yayan Zhu

**37337 09:00-09:30 | Room 506 (5F)**

#### *Evaluation of Total-Factor Carbon Emission Performance and Technology Gaps in China*

Yuqi Li, China University of Geosciences, China

Reducing carbon emissions contributes to mitigating global climate warming. Based on meta-frontier, this paper applies non-radial direction distance functions to propose an alternative approach to measure total-factor carbon emission performance and technology gaps. We adopt the proposed approach to investigate carbon emission performance and technology gaps ratio of China's 30 administrative regions between the years 2005 and 2014. Moreover, the decomposition of carbon emission performance loss and the correlation analysis of the actual and the potential carbon emission performance are quantitatively demonstrated. The results indicate that, firstly, the overall level of total-factor carbon emission performance in China is relatively low, and the regional difference is positively significant. Secondly, considering the unbalanced development in different regions, taking Province Per Capita Income as the moderator variable, we find that high income regions and lower-middle income regions perform better than upper-middle income regions regarding carbon emission performance, and the lower-middle income regions generally have the lowest technological levels. Furthermore, both the technology gaps and insufficient management impact carbon emission performance negatively, whereas insufficient management is a dominant factor.

**35825 09:30-10:00 | Room 506 (5F)**

#### *Towards an Improved Theory of Disruptive Innovation: Evidence from the Personal and Mobile Computing Industries*

Juan Sebastian Montoya, Doshisha University, Japan

Toshiro Kita, Doshisha University, Japan

This research studies the concept of disruptive innovation, its patterns, and the mechanisms that cause it. By using quantitative and qualitative evidence from the personal and mobile computing industries, this research serves to corroborate Clayton Christensen's disruption theory, the main theory proposed today as an explanation of this phenomenon. It identifies the strengths and weakness of the theory, and builds upon it in order to propose an improved theory of disruption. In order to measure disruption in the personal and mobile computing industries, this research collected data for 58 product lines, including personal computers and smartphones developed by companies in America, Europe, and Asia from 1974 to 2015. A correlation analysis validated the foundations of Christensen's model; however, it also revealed many unexpected results such as the importance of radical innovation and architectural innovation, and the possibility of self-disruption. Further qualitative historical analysis corroborated these results. The main finding of this research was identifying three different types of disruption and proposing an original categorization for them: 1) disruption by creation of a new market; 2) disruption by "mainstreamization" of the market; and 3) disruption by commoditization of the market. This represents an improvement over the current theory. Finally, this research analyzed a phenomena previously not explained, and coined a new concept for it: "anticipation of the technology life-cycle", which describes the adoption of new technologies earlier than optimal in order to leapfrog competitors. This mechanism serves as a causal explanation of disruption, and complements the existing theory.

**35226 10:00-10:30 | Room 506 (5F)**

#### *Case Study on the Organizational Structure Design Based on Technological Innovation Platform of Core Enterprises within the Distributed Innovation Networks*

Yayan Zhu, Tianjin University of Finance and Economics, China

Research from a variety of perspectives has argued that technological innovation no longer takes place within a single organization, but rather is across multiple institutions or firms within a distributed network. This paper only discusses one kind of the distributed innovation networks that the ones have a core enterprise as the innovation platform provider. This study focuses on the organizational structure and its mechanism for the core companies to ensure and accelerate technological innovation within the distributed network. The methodology adopted in this study is case study. A diversified transnational firm is chosen to be the objective of this study, which is a high-tech in Asia and a core enterprise of a distributed innovation network across the world. This paper considers the nature, organs and their effects of the organizational structure for the innovation platform of the core enterprise. From this, we contrast and analyze the sources, motivation and connection of external innovation, and thereby provide a framework for the organizational structure design of the core enterprises of the distributed innovation networks.

# Sunday Session I

## 09:00-10:30 | Prokofiev Hall (2F)

### Politics, Public Policy, Law & Criminology

#### Session Chair: Mas Pungky Hendra Wijaya

**37364** 09:00-09:30 | Prokofiev Hall (2F)

#### *Prevention and Eradication of Corruption through Optimization of Legal Research in College*

Edita Elda, Universitas Indonesia, Indonesia

Current world progress has brought sophisticated influences in the development of the level of corruption crimes. Today, law enforcement corruption eradication is highly anticipated for the direction of change that much better. The role of the College and in creating the next generation of the nation is very significant for such changes. In the social field, including legal research, is a material that can create change towards a direction of improvement in law enforcement. Legal research can give meaning and contribution in the spirit of law enforcement that aligns scientifically. The problem is how to create optimization studies law in the College can be an innovation in the prevention and eradication of criminal acts of corruption. With regards to the rampant growth of corruption in every sector, it certainly brought a bad impact to the achievement of national development as a whole. The role of academics through thought-provoking research can give donations for research as strategic measures to be able to prevent and provide recommendations in the eradication of criminal acts of corruption. Legal research study results may provide direction toward improvement. Therefore, there is a need to optimize the results of legal research for better law enforcement in the future, particularly in the prevention and eradication of criminal acts of corruption.

**37423** 09:30-10:00 | Prokofiev Hall (2F)

#### *Financial of Public Enterprise Subsidiary in Corruption in Indonesia*

Fauzan Prasetya, Universitas Andalas, Indonesia

Indonesia restructures State-Owned Enterprises (SOEs) in the form of a holding company through Government Regulation Number 44 of 2005 in conjunction with Government Regulation Number 72 of 2016 on the Procedures of Participation and Administration of state capital in State-Owned Enterprises and Limited Liability Companies. This caused controversy. It is stipulated that the Subsidiaries of State-Owned Enterprises shall be treated in the same way as State-Owned Enterprises in performing public services or obtaining specific policies from the state, including natural resource management with certain treatment as applied to SOEs. This equality of treatment opens the possibility of equal treatment in terms of accountability between SOEs finances and Subsidiaries of State-Owned Enterprises finances. The problem is, whether the act against the law by the Board of Directors of a Subsidiaries of State-Owned Enterprises that causes losses to a Subsidiaries of State-Owned Enterprises is a criminal act of corruption. The method of writing is normative. State finances in the explanation of Law Number 31 of 1999 in conjunction with Law Number 20 of 2001 on Corruption Eradication constitute all state assets arising from being in the control, management, and accountability of SOEs. Whereas the juridical between SOEs and Subsidiaries of State-Owned Enterprises is two independent limited liability companies which have their own corporate organs as regulated in Law Number 40 of 2007 on Limited Liability Company so that the unlawful acts committed by the Board of Directors of Subsidiaries of State-Owned Enterprises Causing corporate losses is not a criminal act of corruption.

**35457** 10:00-10:30 | Prokofiev Hall (2F)

#### *Political and Legal Challenges in Reforming the Structures of the Indonesian Bureaucracy*

Mas Pungky Hendra Wijaya, Curtin University, Australia

The purpose of this paper is to identify challenges to the reform of the Indonesian public sector, particularly in the area of institutional reform, and ascertain the extent to which political and legal aspects influence such reform. In addition, this study will propose a legal framework for establishing effective and efficient government organizations. The large structure of the Indonesian public sector has significant potential overlapping functions between institutions, which results in ineffective and inefficient governance. Reforming government institutions in Indonesia often faces political and legal obstacles. In the past, politicians or high-level officials have sometimes resisted reform measures in the interests of preserving their position in the administration. Moreover, there are laws which provide for the preservation of certain ministries or agencies; reforming these often involves difficult political processes. A qualitative approach has been taken in order to meet the aim of this paper, namely to identify the political and legal challenges in conducting institutional reform and examine the extent of those challenges that shape the governance structure of the Indonesian bureaucracy and how they constrain public sector reform in Indonesia. This research is a socio-legal study that combined political science, public policy and management, and legal research in the area of administrative law. The benefit of using other disciplines to support legal research have been widely known; and socio-legal research expands legal discourse which guides the course of the research and methodologies to produce evidence in answering research questions.



# Sunday Session I

## 09:00-10:30 | Schumann Hall (2F)

### Sociology

Session Chair: Brent Mack Shea

**35993 09:00-09:30 | Schumann Hall (2F)**

*The Relationship Between Perpetrator, Victim and Bystander*

Yuki Nakamura, Keio University, Japan

This paper explores the issue of accountability from the perspectives of agency and structural violence. Agency as the capacity for social action and structural violence as a social structure with no identifiable agent that harms people pose a difficult challenge when considering the problem of accountability. The relationship between perpetrator, victim and bystander offers an insight as to what happens to accountability when harm is being done depending on whether an agent can be identified or not. Solving the problem of accountability is an important task that can have broad implications in theory and practice.

**37412 09:30-10:00 | Schumann Hall (2F)**

*Witnessing Cyberbullying and Psychological Well-Being among Hong Kong Chinese Students*

Angel Nga Man Leung, The Education University of Hong Kong, Hong Kong

Across 347 Hong Kong Chinese college students (225 females, 122 males, Mage = 20.27, SD = 2.02), their experiences in witnessing cyberbullying and psychological well-being were studied. Cyberbullying has become a serious concern among Internet users worldwide. Despite a number of past studies having been conducted about cyberbullies and cyber victims, very little is known about Internet users who witness cyberbullying, especially in a Hong Kong Chinese population. Therefore, this study aimed to study the relationship among witnessing cyberbullying, self-esteem and depression. Results suggested that 96% of the participants reported witnessing cyberbullying in the past three months, while 38% of them seldom witnessed it, 41% of them sometimes witnessed it, and 17% of them witnessed it frequently. Male students witnessed significantly more cyberbullying than female students. With age, gender, and time spent on using social media online being controlled, self-esteem negatively explained 41.6% of variance in depression, while self-esteem was further controlled, witnessing cyberbullying still positively and uniquely explained an additional 4.6% of the variance in depression. This study demonstrates that while Hong Kong Chinese college students who have low self-esteem are already more likely to have depression, witnessing cyberbullying would worsen the situation. The study implies the theoretical and practical importance of studying online witnesses of cyberbullying, on top of the current focus on cyberbullies or victims in the existing literature.

**35903 10:00-10:30 | Schumann Hall (2F)**

*A Sociocultural Perspective on Alcohol Use in Thailand*

Brent Mack Shea, Sweet Briar College, USA

Household income inequality in Thailand is ranked among the highest in the world, and is related to health problems that include alcohol abuse. Recent explanations for problem drinking go beyond income level, which has been harder to interpret in middle income countries than in high income countries, considering wealth instead. A measure of wealth based on an index of household assets is used in a recent study (Jirapramukpitak et al., 2013), who relate this measure to problem drinking in a sample of old persons living in 100 villages in Western Thailand. Village-level household wealth inequality is directly related to problem drinking. Yiengprugsawan et al. (2012) analyze self-reported data on risk factors for accidents in Thailand. Sornpaisarn et al. (2013) provide a meta-analysis of correlates of alcohol price and taxes in lower middle income countries. Social Policy implications of these and related recent reports of research include increasing both the price and taxation of alcohol as well as reducing inequalities in wealth or limiting increases in these inequalities. Phelan, Link, and Tehranifar (2010), in tests of their fundamental cause hypothesis, demonstrate that eradication of infectious diseases did not change the negative relationship between measures of socioeconomic status and morbidity. Chronic, degenerative diseases like alcoholism are related to risk factors correlated with socioeconomic status. The resources associated with prevention are socioeconomically patterned in a way that could affect health disparities such as morbidity differences due to alcohol use in countries including Thailand.

# Sunday Session II

## 10:45-12:15 | Room 501 (5F)

### Aging & Gerontology

#### Session Chair: Hing-Wah Chau

**37414 10:45-11:15 | Room 501 (5F)**

#### *A Filipino Version of an Ideal Type of Aging*

Maria Cecilia San Luis, University of the Philippines Baguio, The Philippines

Growing older entails several things: accumulation of years, functional decline, behavioural changes and transits from one status to another. The multi-dimensional experience of getting old allows one to look into present circumstances. What one wishes to be in late life can be gleaned from what one is at present. The ideal type, following the Weberian conceptualization of such, as applied to aging is explored in this paper. The paper presents a case for the building up of an ideal aging experience as an aspired state of existence in late life. Seventeen individuals were interviewed using a semi-structured format. Two vignettes were read to participants, who were interviewed individually and were asked about their reactions to the two older people in the vignettes. The first presents the story of the 66-year old never-married man and the second describes the condition of a 73-year old married woman. The characters in the vignettes were fictional and are actually a composite of characteristics and situations of several older people whose existence was deemed realistic. The vignette was used to know what one must have in place for better if not successful aging. The study yielded that financial stability must be secured because growing older spells functional decline and unemployment. Saving money is a common concern identified. Saving in social network, with strong emphasis on family, is strongly stressed by the participants too.

**35885 11:15-11:45 | Room 501 (5F)**

#### *Acceptability of a Video Decision Aid in End-Of-Life Care Decision Making among Older Adults: A Pilot Study*

Ching Ting, Jenny Lai, The Chinese University of Hong Kong, Hong Kong

Yue Lai, Helen Chan, The Chinese University of Hong Kong, Hong Kong

Introduction: Studies have shown that video decision aid (DA) was effective in promoting end-of-life care (EOL) decision making. However, little is known about its feasibility in Asian cultures. Objective: To determine the feasibility and acceptability of a video DA in EOL decision making in community-dwelling older adults in Hong Kong. Method: This is a one-group pre-test post-test study. A video DA was developed through an iterative process and reviewed by an interdisciplinary expert panel. Older adults were recruited from elderly centres. A 6-minute video DA was shown followed by a 30-minute talk to clarify questions. Participants were asked to complete a questionnaire before and after the intervention on its acceptability and their EOL preferences. Chi-square test was performed to compare their preferences at the two time points. Results: Fourteen subjects were recruited, with two-thirds being female (64.3%) and half aged between 65 and 74. Before the intervention, only four of them have heard about ACP (28.6%) and five have discussed their EOL preferences with others (35.7%). Most of them agreed that the video DA is easy to understand (78.5%) and informative (85.7%), but several found it sensitive (28.4%). A significantly higher proportion of participants are able to articulate their EOL decisions after the intervention (pre: 21.4% vs post: 50.0%,  $p = .037$ ). Implications: The findings showed that video DA is generally acceptable by older adults as an effective means to improve understanding about EOL. It also help to empower them to make decisions for their EOL decisions.

**37410 11:45-12:15 | Room 501 (5F)**

#### *Examining the Multi-Cultural Aspect of the Adare Care Model*

Hing-Wah Chau, The University of Melbourne, Australia

Adare Aged Care Home in Victoria, Australia, is a 45-bed facility providing supported residential services for the elderly. It was built in 2000 and catered for English-speaking residents in the first fifteen years. Since 2015, Adare has been transformed into a multi-cultural aged care home under the new management. Due to the lack of Chinese aged care homes in Victoria and the close proximity to Chinese dominated suburbs nearby, Adare now accommodates many Cantonese and Mandarin-speaking residents in addition to English speaking residents. The distinctive combination of Chinese and Western cultures at Adare deserves closer examination and this paper will examine the multi-cultural aspect of the Adare Care Model. Based on the person-focused approach, residents are entitled to make their own choices and to live with dignity and respect no matter which ethnic groups they belong to. Staff working at Adare can communicate with residents using English and Chinese to overcome language barriers. Both Chinese and English meals are served at Adare to cater for different tastes. Chinese acupuncturists and foot massagers visit Adare periodically for the health and well-being of residents, apart from general practitioners, dentists, physiotherapists, podiatrists and speech pathologists. Residents are encouraged to volunteer and to exercise their remaining skills to serve others, such as to teach calligraphy and to do gardening. Through sharing and cultural exchange, they can learn new skills and be involved in social engagement for positive ageing.

# Sunday Session II

## 10:45-11:45 | Room 503 (5F)

### Economic Sustainability: Sustainable Businesses & CSR

#### Session Chair: Bruce Bergstrom

**37389** 10:45-11:15 | Room 503 (5F)

#### *Making Sustainability Operable: How Hong Kong Textile and Apparel Firms Translate Environmental and Social Concerns into Practice through Stakeholder Engagement*

Bruce Bergstrom, Hang Seng Management College, Hong Kong

John Coombes, Hang Seng Management College, Hong Kong

The aim of this research is to identify and examine ways in which publicly listed Hong Kong textile and apparel firms have leveraged stakeholder engagement to implement the principles of sustainability within their operations and across their regional supply chains in the context of sustainable development. With rising concerns about climate change, water scarcity, energy conservation and human rights, what strategies have Hong Kong textile and apparel firms adopted to meet the ever-increasing expectations of their stakeholders? Expectations on firms and their role within society and its environment continue to grow. Society will continue to demand that firms address and solve problems that are directly and indirectly related to their business activities. To meet the growing societal expectations and demands for sustainable development, firms need to foster strategic relationships with their stakeholders. They must develop internal capabilities, processes, procedures and systems that will enable them to effectively engage with their stakeholders and thereby facilitate sustainable innovation and development. Firms will need to innovate, as without innovation there can be no sustainable development. The outcomes of this research will identify key success factors (internal resources and capabilities) that leverage stakeholder relationships to create a framework for greater sustainable development. A qualitative multiple-case (at least 5 in-depth cases) study approach will be employed using a triangulation method (interviews, observations and operational information) to collect and analyze our data.

**34303** 11:15-11:45 | Room 503 (5F)

#### *Organisations Enacting Ecological Marketing Strategy for New Product Development: A Structure and Agency Conundrum*

Simon Lockrey, RMIT University, Australia

Organisations are applying ecological marketing strategies in new product development efforts to help address the impending ecological crisis. Managers enacting these strategies have for the best part failed in delivering product-based ecological impact reductions. Reasons for this conundrum are still not yet clear. In this paper, I use Giddens' structuration theory to help address this strategic issue at hand. By starting from what we know about this phenomenon, I argue that more attention in regards to people and their "agency" is needed when considering such strategies. I do this by conceptualising how employees interact with rules and resources to either reproduce or change social structures, which in turn constrain or enable sustainable outcomes respectively. I examine the conditions where employees may have the power to change or exploit contexts for better ecological outcomes when marketing and product development interact. Alternatively I ponder whether these strategies are problematic when employees are faced with structural resistance at the organisations in which they work. I test this conceptualisation by applying it to previous research exploring the ecological marketing/product development issue, thus contributing a new understanding of these contexts. I conclude by summarising how structuration could be used in further research that identifies routes for manager to navigate structural barriers. Indeed such work may help in enabling effective strategic implementation for sustainability-based marketing and product development at organisations.



# Sunday Session II

## 10:45-12:45 | Room 505 (5F)

### Cognitive & Behavioral Sciences

#### Session Chair: Susan Bacud

**35988** 10:45-11:15 | Room 505 (5F)

#### *The Case Study of Entrepreneurs' Behavior and Enterprise Transformation Mode Selection*

Yubin Liu, Tianjin University of Finance and Economics, China

Shaoqing Geng, Tianjin University of Finance and Economics, China

As one of the main bodies of the market, SMEs play the most active part in the market, fueling the industrial structure transformation. Currently, the relevant research on this topic mainly focus on the motives of the transformation, integration of resources allocation, path evolution, mode selection and consequences of the transformation. Few studies, however, have been targeted at the correlation between entrepreneurs' behaviors and Hi-Tech SMEs transformation mode selection. This paper conducts a case study of Qi Wei Te solar energy corporation on this issue. The research reveals that the entrepreneurs' risk preferences fluctuate in the life circle of the enterprises, and accordingly affect organizations' behaviors and transformation selection of the enterprises. This paper presents the patterns of incremental and radical transformation modes based on the entrepreneur's behaviors. The results of this paper contribute and enrich the theoretical framework of the relationship between entrepreneurs' behavior and business transformation, and present referral value for the transformation of Hi-Tech SMEs.

**35907** 11:15-11:45 | Room 505 (5F)

#### *Validity and Reliability of a Home-Made Cognitive Ability Test: A Case Study of a High-Tech Company in Taiwan*

Po Han Li, National Changhua University of Education, Taiwan

Tun-Chun Huang, National Changhua University of Education, Taiwan

In Taiwan, companies use home-made cognitive ability tests to select applicants. However, the psychometric properties of these test batteries (e.g. validity, reliability and sensitivity to change) largely remain unexplored. Establishing the psychometric properties of an instrument is essential prior to applying it in practical use. Accordingly, we introduced a useful procedure in testing the psychometric properties of a cognitive ability test and applied this procedure to examine a newly developed cognitive ability test by a high-tech company in Taiwan. Validity evidence was collected from 83 undergraduate and graduate students. All participants undertook the newly developed cognitive ability test and some of them undertook the test twice (n = 20). Specifically, the criterion-related validity, Cronbach's alpha, and test-retest reliability were calculated. Results showed that the home-made cognitive ability test have acceptable internal and test-retest reliabilities, but did not predict the test-takers' academic performance, suggesting that the home-made test may have little utility in employee selection. Based on the results of this study, practical advices are offered to companies who wish to develop and apply the cognitive ability test in their selection process.

**35871** 11:45-12:15 | Room 505 (5F)

#### *Cognitive Decision-Making in Evolving Transformative Resilience: Responses to the Livelihood Risks of a Marginalized Sampaguita Growing Community in the Philippines*

Susan Bacud, University of the Philippines at Los Banos & University of the Philippines Open University, The Philippines

Virginia Cardenas, University of the Philippines Los Banos, The Philippines

Luis Rey Velasco, University of the Philippines Los Banos, The Philippines

Poverty compels many farmers in the Philippines to engage in alternative livelihoods. The research setting is a locality in which sampaguita growing is a valued community livelihood diversification that provides marginalized households with a daily income source. Constructivist research methodology was used to explore the constructs and meanings of lived experiences about the sampaguita livelihood. The research revealed as salient in the "life world" of the sampaguita growers the inter-linkages of their cognitive processes with extant social and physical ecologies in addressing livelihood risks. The perceived livelihood risks include: poverty; frequent pesticide spraying that caused pest emergence and resistance, as well as human and environmental health problems; variable weather conditions, production level and market prices. Human-nature relationships and social interactions – among community members, with members of other communities, with local government units and other organizations – evolved local knowledge, values, and practices that influenced cognitive decision-making to solve the livelihood risks. Decision-making as risk-solving is a meaningful undertaking that underlies the sampaguita growers' resilience processes, which are categorized as learning livelihood change, building social support mechanisms, evolving self-organizations, nurturing adaptation learning, and aspiring for agro-enterprise development. Cognitive decision-making in resilience processes enabled the sampaguita growers to survive the compounded negative effects of livelihood risks. Based on experiential understanding of the interaction of risks, there was a range of choices on which to base collective and adaptive risk-solving decisions. Transformative resilience paved the way for the development of livelihood capitals that include social, human, economic and natural capitals.

**37398** 12:15-12:45 | Room 505 (5F)

#### *The Environment Encouraging "Something to Do", Being Lively, In Juvenile Correctional Facilities, Case Study: Juvenile Vocational Training Center, Thailand*

Pronyos Chattarakul, King Mongkut's University of Technology Thonburi, Thailand

Duangkamol Limwongse, King Mongkut's University of Technology Thonburi, Thailand

The younger generation is always important for the future. With limited experience and maturity, they occasionally make mistakes. In developing countries such as Thailand, the number of teenagers in juvenile correctional facilities is a serious problem. This qualitative study was conducted to understand life in Juvenile Vocational Training Centers (JVTC) in Thailand and important factors in the environmental design of JVTC. Twelve days' participatory observation in fifteen JVTC conducted the considerations of personal context and circumstance. Typically, the activities in JVTC focus on rehabilitation programs, which are boring for juveniles. Most of them ignore the program for various reasons. The study results showed that juveniles cannot be rehabbed efficiently if they feel depressed, and they cannot feel lively if they are not secured. A clear environment is proposed to ensure that all juveniles can be always noticed by others for safety. To be lively, juveniles need to have "something to do". The study has strongly recommended that 1) natural environments (such as pond, soil and big tree) and 2) everyday environments (such as garage, street vendor and local meeting point) are key elements for them to start creating activities in JVTC. The environment with a good combination of these two elements is significant for juveniles to mean their future living in centers. "Something to do", in this case, could be considered as a driving force upon them to be away from worry and be lively. Then they can realize future opportunities and also the benefit of rehabilitation programs.

# Sunday Session II

## 10:45-12:45 | Room 506 (5F)

### Economics & Management

Session Chair: Bilin Xu

**36658** 10:45-11:15 | Room 506 (5F)

#### *Analysis of Household Debt Inequality in Thailand*

Narissara Charoenphandhu, Faculty of Economics, Rangsit University, Thailand

Inequality has been usually mentioned in term of income inequality to elevate people's well-being. This research examined another dimension of inequality, which is debt inequality. Among people who have the same level of income, some of them have high debt while some people have not. Therefore, we should not neglect this aspect because indebtedness makes them vulnerable to unstable life. This research mainly used household data, known as the Socio-Economic Survey, compiled by the National Statistical Office of Thailand. To estimate debt inequality, people were classified according to level of income, and the distribution of debt was estimated for each income group. The results revealed that there was debt inequality within the same level of income group. Low debt inequality was not always good because it means that households have debt equally. Besides, it can be also positively interpreted that they have a small amount of debt similarly. This depends on the average household debt of each group. High debt inequality can imply that there are large differences between debts of each household in the same group, i.e. there were some households with low debt or even no debt, despite some households having high debt. This research points out the issue that only the measure to alleviate income level may not be enough to sustain people's well-being. Therefore, the government and policymakers should emphasize the implementation of effective policies to lessen household debt, together with increasing people's income that will lead to real well-being and self-sufficiency.

**35353** 11:15-11:45 | Room 506 (5F)

#### *Financial Management Competency of Graduates of Senior High School: Basis for an Outcomes Based Financial Education Program*

Arnel Manuel Leonardo, University of Makati, The Philippines

The issue of financial education has risen on the agenda of educators, community groups, government agencies and policymakers. This interest in financial education has been prompted because of the increasing complexity of financial products and the increasing responsibility on the part of individuals for their own financial security. Well-informed, financially educated consumers are better able to make good decisions for themselves and their families, and because of this they are in a position to increase their economic security and well-being. Financially secure individuals and families are better able to contribute to the betterment of the communities and foster development of the country. Thus, financial education is important not only to individual households and families but to their communities and their country as well. And because of this financial literacy became the focus of this study. This study assessed the degree of competency of the selected graduates of the Senior High School on financial management specifically on financial knowledge, financial attitude and consumption behavior with an output of Outcomes Based Financial Education Program. Specifically it aims to answer the degree of financial management competency in terms of assessed and perceived financial knowledge, perceived financial attitude, perceived consumption behavior, the degree of competency in terms of financial knowledge, financial attitude and consumption behavior when grouped according to their profile, and Outcomes Based Financial Education Program that can be proposed.

**37262** 11:45-12:15 | Room 506 (5F)

#### *Geographical Diversification and Corporate Social Responsibility*

Xinyuan Peng, China University of Geosciences, China

This paper investigates the relationship between geographical diversification and corporate social responsibility (CSR), and whether this relationship is due to the ownership structure. By using a sample of 7456 observations of listed companies in China over the period of 2010 to 2014, we develop a set of empirical models of CSR, and find evidence of a significant positive relationship between the CSR and geographical diversification. Considering the unbalanced development in different provinces, we take the Marketization Index as the moderator variable, and we find that the higher index, the more positive the relationship between CSR and geographical diversification. Furthermore, when distinguishing the firms' ownership structure, state-owned enterprises (SOEs) have higher CSR and there is a more significant positive relationship in SOEs. These findings provide new explanations for CSR from a geographical perspective and strengthen the understanding to corporate rent-seeking behaviours, and providing important inspiration for China and other emerging countries.

**35127** 12:15-12:45 | Room 506 (5F)

#### *Evaluation Indicators: Satisfactory Labor Relations of Migrant Workers in Tianjin Pharmaceutical Industry*

Bilin Xu, Tianjin University of Finance and Economics, China

Today, the satisfaction with labor relations of migrant workers is a topic of interest, and is receiving increasing attention in China. Because of migrant workers are an important source of labor for manufacturing, HR managers want to know how to build evaluation indicators to promote satisfactory labor relations of migrant workers. Earlier studies show that satisfaction with labor relations impacts firm performance, and the relationship between labor satisfaction and firm performance is positive. However, little research has examined the evaluation indicators of satisfactory labor relations of migrant workers in China, especially lack of empirical investigation. On the basis of theoretical review, and interviews with 118 workers and 48 managers in 3 Tianjin pharmaceutical firms of China, the paper developed a scale including 5 first-level indicators and 41 second-level indicators. We conducted a questionnaire survey of 480 samples in pharmaceutical Industry of Tianjin, and 446 are valid. The data are analyzed by Analytic Hierarchy Process, the paper identify that 5 first-level indicators and 36 second-level indicators have significant evaluation of the satisfaction of labor relations of migrant workers. Finally, implications for HR managers are also discussed.

# Sunday Session II

## 10:45-12:15 | Prokofiev Hall (2F)

### Cultural & Media Studies

#### Session Chair: Chien Wei Chou

**35092 10:45-11:15 | Prokofiev Hall (2F)**

#### *A Study of Comfort Elements Combine with Local Mascot: The Case of Yunlin Townships*

Wen Ying Chiu, National Yunlin University of Science and Technology, Taiwan

Yunlin County, which is located in the south-west of Taiwan, west of the Taiwan Strait, consists of 20 townships. Due to its plain ground and fertile soil environment advantages, which suit agriculture, it has been the main supplier of rice and vegetables, which had made a great contribution to Taiwan. Although the official mascot "MENG YA ZIH" represents Yunlin County, there is no mascot for the township individually. The mascot should contain an affinity that lets people feel close, harmless and being kind. The purpose of this study is to look for a method to combine those elements and to improve those to create a new harmless mascot for the townships. At the beginning of the research, the researchers will use Secondary Qualitative Study for the collection of mascot design. And analysis of the color, and comfort elements, and combine the two data collection. After the completion of the data collection, researchers use focus groups to conduct interviews on design background students to get those who have Basic Aesthetics and Design Sensitivity for the mascot's opinion and the image of Yunlin local towns. The contents of the interview after the integration of the mascot in accordance with the results of the prototype design, prototype design is complete, the use of prototype for the comfort of the in-depth interview. As the research involves time, human, financial and other factors, all the township can't be the mascot design, therefore the study will output 1-3 township healing mascot as a result.

**35091 11:15-11:45 | Prokofiev Hall (2F)**

#### *The Research of Taiwan Virtual Idol Design Factor Analysis*

Chien Wei Chou, National Yunlin University of Science and Technology, Taiwan

In December 2014, Kaohsiung MRT worked with creators to launch "K.R.T. GIRLS" in order to attract young people's attention, and this received a great response. In addition, Taiwan professional baseball team Uni Lions also established the girl idol group "Unigirls Junior" in June 2016, and the group also has three virtual idols to serve as its corporate image spokesperson. In October 2016, Taiwan's Tainan City also launched "Fucheng Xiaoman" to promote Tainan City's tourism and culture. More and more government units and enterprises want to attract young people through virtual idols. These virtual idols have a charming, lovely, friendly, even "Moe" appearance. Because virtual idol industry is becoming more and more popular, if the design principle behind the design of the virtual idol could be study, it is possible for future creators to create additional economic value. Therefore, this research will start from understanding the design principles of the virtual idol in Taiwan. The research will analyze the literature of the character design to understand the design elements behind the character, and will use Expert Assessment to verify the elements. Finally, using Case Analysis to examine the elements of Taiwan virtual idol for corresponding results of this research. The research result of this research is to unify the design concept of Taiwan virtual idol, in order to assist the new designers to enhance their design creativity. This research expects to serve as a sample for future researchers or designers to reference.

**35878 11:45-12:15 | Prokofiev Hall (2F)**

#### *Immediate Behavioral Impacts on Pornographic Exposure and Attitudes Towards Pornographic Controlling Measures in Thailand*

Nuenghathai Khoponklang, Suranaree University of Technology, Thailand

Satidchoke Phosaard, Suranaree University of Technology, Thailand

This study aims to study the attitudes of Thai people towards pornographic controlling measures. Pornographic media is illegal in Thailand but the results reveal that 82% of Thai people have been exposed to pornographic media; 87% of whom have done it since high school or previously. As well as changes in technology, changes in behaviors and attitudes towards pornographic media of Thai people that are more open to sexual permissiveness after constant exposure to pornography, leading the way to have better controlling measures in the current situation. The study employed mixed methods gathering 1,600 surveyed samples and 80 in-depth interviews. The analysis can categorize pornographic controlling measures in six categories: 1) media controls, 2) channel controls, 3) production and distribution controls, 4) legal controls, 5) social controls and 6) immunity building and education. People in the camp that prefers the legalization of pornographic media have main suggestion on rating and age restriction of pornographic exposure. People in the camp of leaving pornography illegal concern that by having it legalized, it would increase social problems such as rape, prostitution, adolescent pregnancy, abortion and sexual addiction. The study could be used by policymakers and stakeholders to update related laws and practices in the realm.



# Sunday Session II

## 10:45-11:45 | Schumann Hall (2F)

### Ethnicity, Difference, Identity

Session Chair: Maman

**36881** 10:45-11:15 | Schumann Hall (2F)

*Can You Do Hip-Hop in Yogyakarta? Global-Local Nexus in Javanese Hip-Hop*

Septirian Praditya, Monash University, Australia

The emergence of the internet and the development of transportation technology have enabled massive products, people, and ideas to travel beyond borders and nations. They also foster and intensify the interaction between global and local culture. This paper attempts to examine of the global-local nexus in globalisation by conducting a case study. It focuses on the growth of hip-hop as a form of a global culture in the Javanese society. The discussion includes the development of hip-hop as a global culture, the identification of factors that affect the acceptance of hip-hop in Javanese society, and the Javanese hip-hop as a form of hybridization. It concludes that the society responds to the global product based on its own interpretation. It also highlights that the process of global-local nexus depends on several factors. The dissemination of hip-hop culture in Indonesia gains advantages from the policy of Indonesian government to be more open to the international discourse as well as to grant more freedom to the media industry in the 1990s. Furthermore, the development of hip-hop is supported by the characteristics of Javanese society which deeply respects mutual understanding and collaboration across cultures. The similarity of hip-hop elements to the forms of Javanese traditional music and arts such as *wayang* (puppet show) and *parikan* (traditional poems) also plays pivotal roles in creating a hybrid product as a result of the interaction between global and local culture; that is Javanese hip-hop.

**35910** 11:15-11:45 | Schumann Hall (2F)

*Problematizing Contemporary Government Policies toward Right of Religion and Culture within Heterogeneous Indonesian Society*

Maman, University of Melbourne, Australia

Since 1998, Indonesia has embarked on a new democratic era that embraces the protection of human rights and more social and political freedom. This was expected to fabricate a significant advancement for Indonesian society, through government policies, especially in term of religious and cultural freedom, which was suppressed during Soeharto's authoritarian regime. Numbers of local religion, traditional beliefs and culture vanished due to fear of being classified and targeted as communist supporters. Not only has this caused a loss of diversity, but it has also breached the value of humanity and triggered oppression toward minorities. However, this research argues that, instead of making significant positive progress, the contemporary government policies have been inconsistent toward the protection of religious and cultural freedom. Some policies, which are maintained from the dictatorial regime, have even stigmatised local religions and traditions. The state is still performing a system, a legacy of the regime to combat communism by recognising only six religions and excluding local beliefs, which has been contradictory toward the Indonesian constitutional principles and values as a miscellaneous country. Also, government policies that embrace certain values of major religion, Islam in particular, applied to general society have contributed toward growing tyranny of majority of "Islam hardliner" that post dominance toward minorities deemed "religiously deviant". Lastly, it examines the repercussions of such inconsistencies toward degradation of social capital, especially trust and tolerance, which tends to trigger social conflict and more importantly hinders the protection of religious and cultural freedom and social development within Indonesian society.

# Sunday Session III

## 13:30-15:00 | Room 501 (5F)

### Aging & Gerontology

#### Session Chair: Lok Chun Janet Lee

**35621 13:30-14:00 | Room 501 (5F)**

#### *Perspectives of Users and Experts on Designs for Converting Existing New Zealand Houses to Make Them Suitable for Ageing in Place*

Fatemeh Yavari, Victoria University of Wellington, New Zealand

Brenda Vale, Victoria University of Wellington, New Zealand

The limited available choices for older people as well as personal factors have led to a demand for ageing in place. Given the slow rate of adding new houses to the existing stock in New Zealand (Statistics New Zealand, 2013), it is essential to find effective design solutions for redeveloping the latter to achieve a better quality of life, wellbeing and independence for the elderly. This paper reports on the preferences of older New Zealanders for a number of such designs as well as comments from experts in the field. Two New Zealand housing types were investigated (early twentieth-century villas with a central corridor and 1930–50s single-storey state houses). Selected examples of each were redesigned, the possible options ranging from subdivision (conversion to two smaller units) to varying degrees of shared living (shared spaces such as a guest bedroom) to only having private bedsits and all living spaces shared. These designs were presented to a group of design professional and researchers into ageing for comments on their suitability. The same floor plans were examined by people aged 65+ through an online questionnaire survey. This paper reports on the results of these investigations. The various design-related characteristics identified through analysing the comments could assist designers in making informed decisions when altering existing houses to make them more suitable for ageing in place. The outcomes of this study could also assist the authorities involved with housing provision for the ageing.

**35227 14:00-14:30 | Room 501 (5F)**

#### *Development and Validation of the Reinvented Fall Prevention Specific Traditional Chinese Exercise Protocol for Healthy Community-Dwelling Elders in Hong Kong*

Lok Chun Janet Lee, Technological and Higher Education Institute of Hong Kong, Hong Kong

Hector Tsang, The Hong Kong Polytechnic University, Hong Kong

Justina Liu, The Hong Kong Polytechnic University, Hong Kong

Del Wong, Shangdong Sport University, Hong Kong

Colin Hayes, Technological and Higher Education Institute of Hong Kong, Hong Kong

**Aims and objectives:** This study attempt to develop and validate a culturally relevant fall prevention specific exercise protocol for healthy Chinese elders in Hong Kong. **Design:** This study was designed using the Delphi technique. **Methods:** Extensive literature review was conducted to identify elements that were proven to be important to fall prevention exercise. The first author reinvented the traditional Chinese exercise protocol (Baduanjin) by incorporating balance training and strength straining principles into the original protocol. The reinvented exercise protocol was further evaluated by expert panel consensus through content validity index (CVI). A 4-member expert panel with backgrounds in occupational therapy, physiotherapy, nursing and exercise physiology were convened to assess the content validity of the reinvented protocol. Stage 1 of the Delphi technique has identified 9 factors/criteria that are essential for a fall prevention exercise protocol. At Stage 2, experts were required to rate how far the reinvented protocol could may achieve the factors/criteria. **Results:** All experts evaluated the reinvented exercise protocol using content validation Index (CVI). All the identified factors/criteria received CVI ranging from 0.75 to 1, meaning multidisciplinary experts reached consensus that the reinvented protocol has potential to address fall prevention. Qualitative experts' comments were also used for further refining the reinvented protocol. **Conclusion:** Consensus reached by multidisciplinary experts suggested that the reinvented protocol is ready to be tested on field by human subjects.

**35940 14:30-15:00 | Room 501 (5F)**

#### *Do Social Activities Guarantee Senior Citizens to be Spiritually Satisfied?*

Yanki Hartijasti, Universitas Indonesia, Indonesia

Kirana R. Ririh, Universitas Indonesia, Indonesia

Aryana Satrya, Universitas Indonesia, Indonesia

Niken Iwani Suryaputri, Universitas Indonesia, Indonesia

Indonesia is a country with an aging society. With around 20 million senior citizens, the Indonesian government is continuously designing senior citizens program activities to a create healthy aging society. Previous studies claim that being engaged in social life activities has a positive effect on physical health conditions, including the mind and body of senior citizens, but the majority of the community are not sufficiently aware of how important this is to successful aging. The objective of this study is to analyze whether carrying on social activities will lead to spiritual satisfaction. Non-probability sampling technique with convenience sampling is utilized in this study. Data gathered from 518 respondents from seven provinces in Indonesia was analyzed using descriptive and chi-square analysis. Results show that social activities in urban areas are higher than rural areas, especially in spending time with family and friends. This condition is supported by better Internet access and more cellular phones as well as car or motorcycle ownership in urban areas. The findings of this study reveal that doing more social activities does not guarantee senior citizens to be spiritually satisfied. Although they have less sophisticated technology and modern infrastructures, senior citizens in rural areas accept the condition wholeheartedly, which makes them have higher spiritual conditions than senior citizens in urban areas. Possessing a cellular phone with good Internet access will only cause an overload of information, whereas having vehicles will lead to overcrowded transportation.

# Sunday Session III

## 13:30-15:00 | Room 503 (5F)

### Economic Sustainability: Environmental Challenges & Economic Growth

Session Chair: Henry Itotenaan Ogiri

**35629** 13:30-14:00 | Room 503 (5F)

#### *The Impact of Green Innovation on Manufacturing Industry in Yangtze River Economic Belt under the Circumstances of Resources and Environment*

Jia-chao Peng, China University of Geosciences (Wuhan), China

Ming Yi, China University of Geosciences (Wuhan), China

Based on the theory of human capital and innovation, the article by stochastic frontier model (the SFA) examines effects of green innovation in the manufacturing sector, which used years 2011–2015 of the Yangtze River economic belt manufacturing data. The SFA estimates show that there is a positive effect between funding for green innovation and manufacturing output elasticity, and the positive effect of patent innovation is higher than the output elasticity of patent innovation on the performance of the manufacturing industry. There is a significant negative effect between R&D and the elasticity of output performance of the manufacturing industry; fossil energy consumption also has this kind of relationship. The equation of technical ineffective environmental impact factor shows that carbon dioxide, sulfur dioxide and dust emission have significant effects on the technical efficiency of manufacturing industry; the technical efficiency of manufacturing industry in the lower reaches of the Yangtze River is lower than that of the green innovation in manufacturing industry, between the upper and middle reaches. On this basis, this paper puts forward the policy enlightenment of the Yangtze River Economic Belt to build regional innovation cooperation platform.

**37390** 14:00-14:30 | Room 503 (5F)

#### *A Research on the Relationship Between Innovation Input, Innovation Output and Economic Growth in Hubei Province*

Xuyang Li, China University of Geosciences (Wuhan), China

Tongping Li, China University of Geosciences (Wuhan), China

In recent years, China's economic growth has undergone structural slowdown for the "new normal". In this regard, the government proposed the implementation of innovation-driven development strategy. Currently, Hubei Province faces with resource constraints and other environmental challenges. Thus how to develop the economy and enhance the comprehensive competitiveness of the region has become the focus. Based on the above background, from three aspects of innovation input, innovation output and economic growth, this paper chooses representatives indexes: industrial enterprises above designated size R&D expenditure, number of granted patent and Per Capita GDP. By using VAR model and sample data from 1998 to 2015, it analyzes deeply the relationship between innovation input, innovation output and economic growth. The results show that Granger causality and the lagged effect among the three variables. What is more, innovation output plays only a small part in promoting economic growth. Therefore, scientific and technological innovation is not the main cause of economic in Hubei Province. Then, the economic benefits of innovation need to be improved and the task of developing innovative economy is still challenging in Hubei Province. Finally, based on the above analysis, it promotes the countermeasures about development of Hubei province innovative economy. Initially, increase innovation investment, and optimize innovation environment. Secondly, build a platform for innovative services and enhance the capability of independent innovation. Thirdly, promote regional linkage innovation and rationally allocate scientific and technological innovation resources. Lastly, deepen the reform of institutional mechanisms to enhance the functions of government services.

**37238** 14:30-15:00 | Room 503 (5F)

#### *Sustainable Regional Economic Development in West Africa: Imperative of an Ecowas Super Highway*

Henry Itotenaan Ogiri, Rosebowl Education Consult Ltd, Nigeria

Over the last four decades, countries in the West Africa sub-region (namely, Nigeria, Benin Republic, Togo, Ghana, Cote d'Ivoire, Sierra Leone, Liberia, Guinea, Guinea Bisau, Niger, Mali, Burkina Faso, the Gambia, Senegal, and Cape Verde) have continued to search for an economic integration model (EIM) through which socio-economic prosperity will be enhanced. However, despite numerous sub-regional summits and economic integration fora, little has been achieved to date in terms of real fiscal and developmental growth thus securing an almost permanent seat for the region as one of the world's poorest. While regional integration is increasingly being accepted as essential in facilitating socio-economic and political development, various accounts from the extant literature indicate that the lack of political will by ECOWAS leaders, among other concomitant factors, have led to the region's inability to drive home the lofty ideas as contained in its numerous protocols. Using survey method for the data collection and SPSS software for empirical analysis, this paper examines the critical factors that have hampered socio-economic growth in the West Africa sub-region and highlights the imperative of an ECOWAS Super Highway as a driving force for the rapid transformation of a region that is so rich in human and materials resources yet is nested in a web of abject poverty. Finally, the paper provides an opportunity for further research to assist regional policy formulation, particularly as it affects cross-border transportation system within the ECOWAS sub-region.



# Sunday Session III

## 13:30-15:00 | Room 505 (5F)

### Energy: Energy Economics & Ecological Economics

Session Chair: Jin-Long Liu

**36007** 13:30-14:00 | Room 505 (5F)

#### *Significance of Household Composition on Electricity Consumption and Carbon Emissions*

Thoedsak Chomtohsuwan, Rangsit University, Thailand

There are various household compositions, including the number of members and the age of each member. The consumption pattern of members in each age range are different. Although two households may have the same number of members, but may have different patterns of consumption because the ages of each member in each household are different. The estimation of household electricity consumption and its carbon emissions without considering the household age composition may lead to inaccurate results. Therefore, this paper emphasizes the significance of the different household age composition on the different household electricity consumption and its carbon emissions by utilizing the Age-Oriented Household Consumption model developed from the Linear Expenditure System model. The data used in this paper come from the household socio-economic survey of the national statistical office of Thailand. The results of this paper express the change of the household electricity consumption and its carbon emission when the household composition changes. The government may apply the results on the energy and environmental policy relating to the population demographic change.

**37355** 14:00-14:30 | Room 505 (5F)

#### *Towards Environmental and Social Sustainability in the Development of Renewable Energy*

Kuei-Chao Chang, The Research Center for Energy Technology and Strategy, National Cheng Kung University, Taiwan

Min-Chi Wen, National Cheng Kung University, Taiwan

Hwung-Hweng Hwung, National Cheng Kung University, Taiwan

To help solve the global energy consumption dilemma, renewable energy development is currently the most important energy resource option. Although renewable electricity is produced from "renewable" resources, such production still creates environmental and social concerns and conflicts, as well as economic impacts involving the livelihood of local residents. To reduce these conflicts among environmental, social, and economic factors, a multilateral solution is required. However, it is difficult to reach this goal due to conflicting viewpoints and interests. At present, Taiwan is actively promoting the development of renewable energy, with the development of offshore wind power being an important goal of the Taiwanese government. In addition to the development of technology and industrial upgrading, we face difficulties involving properly addressing impacts on the environment and local residents' livelihoods. Therefore, this study used a method of cost-benefit analysis to investigate the relationships among stakeholders from government administrations, enterprises, residential communities, and environmental groups. According to research results, government administrations could gain electricity price and carbon reduction benefits to cover subsidy cost; the largest benefit of enterprises comes from selling electricity and cooperative benefits; residential communities could gain cash back and cooperative benefits to improve their livelihood. Consequently, all of them cooperating could increase the benefit of renewable energy and share benefit in the renewable energy development.

**36136** 14:30-15:00 | Room 505 (5F)

#### *The Effectiveness on Subsidizing Program for the Energy-Efficient Home Appliances in Taiwan*

Jin-Long Liu, National Central University, Taiwan

Promoting investment in energy-efficient home appliances has been one of the policy tools frequently used to reduce energy consumption in Taiwan. The policy is viewed as a win-win measure because it also has the effect to overcome the externality problem. However, the existence of the argument of energy efficiency gap has led decision-makers to use incentive programs as instruments to encourage consumers purchasing the energy-efficient products. During the period between November 2015 and February 2016, the Taiwanese government launched a subsidizing program for energy-efficient appliances to counter the economic recession. The program grants direct cash rebate to consumers who bought energy-efficient products including air-conditioners, refrigerators, TVs, gas stoves and water heaters. The program subsidizes 1.4 million sets of products and around US\$85 million. The purpose of this study is to examine the effectiveness of the program. By using the survey data randomly collected from those consumers who joined the subsidizing program, our results indicate: 1) about 65% of respondents would still purchase energy-efficient products without the subsidizing program; 2) about 23% of respondents would delay the purchases of energy-efficient products if there is no subsidizing program; 3) about 7% of respondents would purchase the less energy-efficient products and about 4% of respondents would delay and purchase the less energy-efficient products if there is no subsidizing program. Overall, the results show that there is a free-rider effect underlying the subsidizing program.

# Sunday Session III

## 13:30-15:30 | Room 506 (5F)

### Economics & Management

Session Chair: R. A. Velentina Napitupulu

**36796 13:30-14:00 | Room 506 (5F)**

*The Role of Top Management Team Behavioural Integration in the Strategic Decision-Making Process*

Ge Liu, University of Edinburgh, UK

The study explores the role of behavioural factors in the strategic decision-making process (SDMP). Many SDMP studies focused on limited variables within the top management team, such as demographics, cognitive diversity and personality, which resulted in a fragmented understanding and failed to investigate whether interactions between the top managers have significant implications for SDMP outcomes. The study explores how individual background, relationship within the top management team, group considerations and political behaviour are a set of constructs that will represent how top managers manage the conflicts and how the cooperative behaviour can make a difference in the strategic decision-making process. It develops a strategic decision-making framework based on a comprehensive set of strategic factors from an incremental perspective. Driven by the nature of the research questions, a multiple case study is used. The research setting in the Asian emerging market highlights the behavioural influences on strategic decision-making practices. The preliminary results illuminate the complexity of team dynamics and top management team cooperative behaviour may advance the top managers' decision but is mediated by the CEO's individual behaviour.

**35929 14:00-14:30 | Room 506 (5F)**

*Improve the Job Engagement of Temporary Employees from the Job Design: A Case Study of L Company in Taiwan*

Hsuan-Yu Kuan, National Changhua University of Education, Taiwan

I-Chieh Hsu, National Changhua University of Education, Taiwan

In a highly competitive and rapidly changing environment, companies use temporary employees to enhance organizational flexibility and reduce labor costs. In recent years, the proportion of companies employing temporary employees has gradually increased. Temporary employees can help organizations to solve the problem of manpower shortage during high season. If companies can make good use of temporary employees, it not only satisfies customer orders but also increases their competitiveness. Job design is the basis of the operation of companies. Appropriate job design can help employees to get meaning and value from their work, so that employees feel the importance of their work and their responsibilities, thereby enhancing the job engagement of employees. When a person has a high degree of job engagement, he or she is not easy to quit and will have a higher output. This study takes a Taiwanese food manufacturing company "L" as an example to analyze the impact of L's existing job design methods on temporary employees through participatory observation and interviews. However, its practices of the job design have room for improvement. Therefore, this study tried to make three recommendations for improvement on present practices: 1) conduct the job rotation in the subsection of the operative department; 2) adjust variable working hours; 3) build comprehensive induction training system, hope to enhance the job engagement of temporary employees and reducing the situation about absence or quit of temporary employee.

**37319 14:30-15:00 | Room 506 (5F)**

*The Use of a Saving-Loan Cooperative as an Illegal Bank*

R. A. Velentina Napitupulu, Universitas Indonesia, Indonesia

Detention of a supervisor and two of the managers of Cooperative Cipaganti is the impact of the loss of Cooperative Cipaganti. It cannot pay interest and return of public funds that have been collected. The total public funds that have been collected reached Rp 3.2 trillion with 8738 investors. Under Article 42 of Law No. 25 of 1992 concerning cooperatives, a cooperative is authorized to collect funds from the public to be stored in the form of "investment capital sourced from the public" (*modal penyertaan yang bersumber dari masyarakat*). Cooperatives need to strengthen capital for business development. However, it shall uphold the values and character of cooperatives as mandated by the 1945 Constitution of Indonesia. The existence of investment capital sourced from the public, in saving-loan cooperatives (*koperasi simpan pinjam*), is similar to banking transactions. Firstly, the investment capital depends on the source of funds from the public. Secondly, the cooperatives mobilize funds from the public in the form of the investment capital and then channel the funds back to the community (cooperative members) in the form of "loan". This function of saving-loan cooperatives is similar to the function of banks as financial intermediary. Thirdly, investment capital, just like savings in banks, obtains benefit from the interest. It results in there being several cooperatives that offer high interest of 18–30% a year, and of 100% within a certain period. It is significant to analyze to what extent a saving-loan cooperative could be classified as an illegal bank.

**35922 15:00-15:30 | Room 506 (5F)**

*Different Sores Must Have Different Salves: Needs Assessment in Education and Training: A Case Study of S Company*

Jia-Yi Lin, National Changhua University of Education, Taiwan

I-Chieh Hsu, National Changhua University of Education, Taiwan

The purpose of this study is to analyze a traditional bicycle manufacturing industry of more than 50 years. In order to strengthen its own brand, this organization has reformed itself actively. If an organization desires to transform, the ability of the staff should be enhanced. Therefore, it's crucial to improve the ability of the staff through the implementation of education and training; however, in the circumstances of the limited funds in every aspect, the first thing to be restricted in expenditure planning is education and training. Apart from this, the hardware resources of the organization have become timeworn after many years. Thus, how to effectively utilize the funds and resources to create benefits and its value is important. In order to propose a plan to improve education and training, organizations need to rely on the needs analysis in the planning of education and training through analyzing the core issues of the organization, work, and employees. During the implementation of needs analysis, the results of the analysis and the method we used would vary from organizational background to organizational background. In order to propose a needs analysis process and the methodology for each analysis phases that correspond to the background of the organization, this study will focus on a case by using literature review and the current situation of the organization to conduct needs analysis, and hopes to provide recommendations that combine academic and practical implementation for the case company.

# Sunday Session III

## 13:30-15:00 | Prokofiev Hall (2F)

### International Relations & Human Rights

Session Chair: Sharon A. Bong

**34479 13:30-14:00 | IAFOR Scholarship Recipient | Prokofiev Hall (2F)**

*On Identity of States: What is Sovereignty in a Post-Human Rights Era?*

Christoforos Ioannidis, King's College London, UK & Central China Normal University, China

State sovereignty is a concept that became central to discussions in international law with the peace of Westphalia. Nowadays, international human rights, especially through humanitarian intervention, are deemed as either clashing with or being exemptions of state sovereignty. We live in a world where words change their meaning and efforts to define/redefine concepts and present them as somehow compatible render them more and more unclear. In this discussion, I offer a concrete solution to the issue with a clear understanding these concepts ought to have in the realms of Philosophy and Law, immune to changes of policies in the international realm, on a reasoning, which rests on the firm basis of legal and a clear understanding of legitimacy. First, Legal Positivism detaches morality from the legal validity of norms and thus conceptualizes sovereignty, contrary to Weber, as morally neutral. Second, legitimacy, a moral term, is an independent concept, which has neither necessary nor contingent relationship with sovereignty. I refer to how political developments construed the actual meaning of the concepts of sovereignty and human rights, crucial protection of which is political choice and not necessary entailment of relevant norms. I analyze three possible outcomes of how sovereignty can be construed and I conclude with the proper definition and understanding of state sovereignty.

**35901 14:00-14:30 | Stuart D. B. Picken Grant & Scholarship Recipient | Prokofiev Hall (2F)**

*The UNSC Resolution 1540: Prospects and Challenges for Regional Governance and Cooperation in Southeast Asia*

Miriniza Cerrero, University of the Philippines Diliman, The Philippines

Southeast Asia is a significant player, potentially as both consumer and producer, in the development and trade of WMD material. The availability and accessibility of WMD materiel or CBRN weapons has lost its exclusivity to government official use and military authorities, thus exposing Southeast Asia to grave threats and damages to regional peace and human security. The dual-benefit argument where nuclear energy is seen as a solution to the dwindling energy resources needed for continued growth and development exacerbate the illicit and political nature of WMD proliferation. The paper examines the interaction between the UN Security Council (UNSC) Resolution 1540 and its implementation or non-implementation by Southeast Asian countries by using history and theories of international relations and international law. It seeks to gather evidence for why some countries in the region are constrained in complying with the obligations while others have successfully incorporated these into their own state practices. It will also attempt to conceptualize the nature of regional cooperation and norms of consensus-building created by this particular case of harmonizing Southeast Asian state practices with Resolution 1540 and draw on lessons and policy implications on regional geopolitics, human security, international law and technology.

**34974 14:30-15:00 | Prokofiev Hall (2F)**

*What's Gender Got to Do with Climate Justice? Conscientisation through Role Play in the Teaching of Sexual Reproductive Health and Rights*

Sharon A. Bong, Monash University, Malaysia

The challenge of enabling students to recognise the symbiosis of climate justice and gender justice was realised through a role play for a second-year undergraduate unit titled "Sexual reproductive health and rights (SRHR) in global contexts" offered by the School of Arts and Social Sciences at Monash University, Malaysia. The unit explores the cross-cutting nature of Sexual Reproductive Health and Rights (SRHR) in cornerstone areas of concern, e.g. gender-based violence, comprehensive sexuality education, reproductive justice and bodily integrity, HIV and AIDS, and sexualities, with emerging areas of concerns, e.g. poverty, climate justice, food security, labour and migration and political and religious fundamentalisms. The archetypal actors representing key stakeholders in the role play "Who is responsible?" are the woman, the business leader and the government. The role play was aimed at teasing out differentiated responsibilities of stakeholders within the gender-inclusive framework reflected in the 17 Sustainable Development Goals (SDGs) that are the bases of sustainable development that synergise not only climate justice but also gender justice (SDG 5). Conscientisation through the role play enabled students to be cognisant of this synergy as they begin to recognise that the partnership of multi-sectoral interventions is needed precisely because men and women are differently and disproportionately affected by systemic gender inequalities and gender inequities. The unit's learning objectives were also met as students were empowered not only to make informed and reflexive decisions on SRHR matters related to their own lives but also to understand broader implications of SRHR in terms of synergising local practices and global visions.

# Conference Closing Address

## 15:15-15:45 | Room 504 (5F)

Closing remarks from members of the conference Organising Committee.





# Virtual Presentations



# Virtual Presentations

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35715

## *Movies Piracy and the Future of Indonesia Copyright Law*

Patricia Audrey Ruslijanto, University of Brawijaya, Indonesia

Globalization has generated developments in all aspects of human life, in particular entertainment. For example, there is a seemingly never-ending supply of movies which are delivered in many different forms including VCD and DVD. However, piracy is rife in this area. Piracy is an issue as it violates intellectual property rights. Indonesia is one of the countries that have been wrestling with the issue of movie piracy. The Association of Indonesia Film Producers' data shows that Indonesia suffers from 90% movie piracy rates. This condition is supported by high demand from consumers that want to access movies for little or no cost. Dealing with this issue, Indonesia has established Law Number 28 of 2014 on Copyright which aims to fight copyright issues such as piracy. Yet this requirement has not prevented the increase in movie piracy. This paper attempts to analyze Indonesia's current law in relation to the protection of movies under Law Number 28 of 2014 on Copyright and what action may be taken to provide better protection for movies in Indonesia. The study shows that the Law Number 28 of 2014 on Copyright has failed to provide sufficient protection for movies against piracy. This paper will show effective steps can be taken to combat piracy by applying Friedman's effective theory of law, which are: the equal practice of legal substance enforcement, combines with building anti-piracy movie task force system; and the cooperation in a society to fight piracy in the movie industry.

35842

## *Continuing Professional Development of Modern Regulators: Innovation and Discovery in Program Approach*

Jane Hudson, Principal Consultant JBassLearning, Australia

Grant Pink, University of New England, Australia & RECAP Consulting Pty Ltd, Australia

The impacts of not establishing and maintaining a Continuing Professional Development (CPD) program can be particularly disruptive for regulatory agencies. These impacts can include: knowledge decay, de-skilling, inconsistent work practices, and ineffective regulatory decisions, all of which affect the ability of agencies to deliver public value. CPD is an important element for modern regulators to establish and maintain their capability to perform regulatory functions. However, generally speaking, CPD does not receive the same level of attention and resourcing (agency commitment) when compared to other key staffing functions such as recruitment (initial and promotion) and training (induction and mandatory). This situation can arise due to a range of factors including, but not limited to: complex operating environments, funding and resourcing imbalances, and shifting government priorities. The design and delivery of CPD needs to be informed by organisational and cultural factors in order that tangible benefits can be maximized. Moreover, as workforces become increasingly diverse (staff roles, skills, demographics) and disparate (virtual, remote, flexible) there is an increasing need for CPD programs to be customised, innovative (integrated, contemporary) and resource-efficient. This paper considers how regulatory agencies, operating across different commodities (social, economic, environmental, hybrid) have developed their CPD programs. The aim of this research is to establish whether, and/or to what extent, innovations and discoveries have been incorporated. It is anticipated that the findings will be of interest to regulatory agencies, regulatory staff, and the regulated community, all of whom have an interest in regulatory excellence.

35845

## *Mediated Citizenship: Examining the Tokyo Big Three Newspapers' Depiction of Citizens during Japan's Postwar Independence and Commencement as a Democracy*

Jun Tsukada, Nagasaki University, Japan

This study analyzed the Tokyo Big Three commercial newspapers (*Asahi*, *Mainichi* and *Yomiuri*) in the wake of Japan's postwar independence and emergence as a sovereign democracy. The aim of this study was to examine how the Tokyo Big Three depicted and incorporated Japan's citizens into democracy with regard to their newly inherited role as the sovereign and political citizen of a democracy; a role in which the people were inexperienced. This mediated citizenship project analyzed 8335 articles (April – October 1952) in the immediate wake of Japan's postwar independence. It focused on what the Big Three had prioritized in their news selection and predicted that, unlike current mediated citizenship trends where citizens are largely seen as emotional beings who have little to do or say about politics, they would portray them, in an exploratory fashion, as politically responsible and normative democratic citizens. It was found that, while the Tokyo Big Three repeatedly declared the importance of the political socialization of the citizen, they nevertheless overwhelmingly omitted political citizens from the news. When citizens were mentioned, their depiction was for the most part negative, criticized over their political immaturity and lack of knowledge. The study revealed that the Japanese media functioned in a "trickster" like fashion, voicing a particular narrative on one hand while simultaneously functioning in a way that appears to contradict the articulated narrative's initial intentions.

35964

## *Managing Carbon Dioxide Emissions Through Spatial Planning: An Approach in the Realization of Sustainable Development in Indonesia*

Iredo Bettie Puspita, National Institute of Technology, Indonesia

In the last decade, emissions of CO<sub>2</sub> in the atmosphere have increased significantly. Recorded by the IPCC (2007), the concentration of CO<sub>2</sub> in the atmosphere in 2007 was higher than scenario A1F1 prediction. The high concentration of CO<sub>2</sub> in the atmosphere has become a threat to sustainable development in the world, including in Indonesia. Indonesia, as a developing country with 52.53% forestry area, has been identified as the third contributor to CO<sub>2</sub> emissions in the world. The various sources of emissions, 87% of Indonesia's total emissions resulting from land-based sectors (Ministry of Environment and Forestry, 2013). To deal with this condition, necessary mitigation, one of which is done by intervening in spatial arrangement. Role of spatial planning directing low-carbon development can be identified by reducing CO<sub>2</sub> emissions in the atmosphere. Therefore, the goal of this article is identifying the significance of the spatial planning contribution in reducing CO<sub>2</sub> emissions in Indonesia. By using Batam City, one of industrial areas in Indonesia, as the case study, it is known that the spatial planning has contribution to reducing CO<sub>2</sub> emissions in the atmosphere significantly. By using stock difference approach, it is identified that the environmentally friendly spatial planning capable to reducing CO<sub>2</sub> emissions up to 93.54%. It is indicating that spatial planning can be used as one of the approaches in the emissions mitigation, particularly in Indonesia.

# Virtual Presentations

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## 36299 | IAFOR Scholarship Recipient

### *Towards Age-Friendly Housing and Built Environment*

Reshma Shrestha, University of South Australia, Australia

Alpana Sivam, University of South Australia, Australia

Sadasivam Karuppannan, University of South Australia, Australia

The population of aged people is increasing dramatically worldwide and this demographic change is a challenge to society in many ways. One of the challenges is the existing built environment being not suitable to the requirements of ageing population. To improve the overall wellbeing of elderly, they should remain healthy and active which can be achieved not only by improving the health care facilities but also by designing their housing and immediate outdoor environment. Planning and design of such an environment will help them to continue to live in same place as they age where they have been living fulfilling their emotional requirements as well. Therefore, designing a prototype for such a built environment will help in fulfilling the requirements of the ageing population. Such built environment seems to be essential in Adelaide, South Australia also as it has the relatively higher proportion of older people compared to other states which is expected to increase over the coming decades. The requirements for such age friendly built environments can be inferred from the development of indicators with the help of experiences of older people and caregivers and the expert opinions. Before designing such environments, assessment of the level of the age-friendliness of a particular environment will guide the approach for planning such environments. This assessment will determine existing barriers and opportunities assisting in design of a prototype of an age-friendly built environment. Thus, developing a framework for planning age-friendly housing and built environment is beneficial for overall wellbeing of aged population.

## 36799

### *Recent Computer Applications in Marketing*

Selay Ilgaz Sumer, Baskent University, Turkey

Emre Sumer, Baskent University, Turkey

Especially in recent years, marketing efforts of businesses have gained more importance along with the intense competition. Creating value to the target market and facilitating the life of consumers have become the primary goals of firms. There is no doubt that offering simplicity to consumers will affect the success of businesses in a competitive environment. Technology is an important input in the wellness of the firms and customers. Hence, marketing needs to be in close contact with computer-related technologies. Computer science is one of the disciplines that encompasses these technologies and aids marketing managers' decision process. As a marketing decision maker, it is important to utilize the benefits of recent computer applications. In this study, among these applications, we mainly focus on geographic information systems, computer vision, augmented reality, eye tracking and data mining. These technologies and their complementary roles in marketing will be discussed in detail along with real-life examples. The study is expected to attract managers' attention and thus support firms' survival by satisfying consumer expectations, maximizing profits and creating a value to the target market.

## 36800

### *Sustainability Should Be Fun: Designing Board Games to Teach Sustainability*

Ricardo Victoria Uribe, Autonomous University of the State of Mexico, Mexico

Sandra Alicia Utrilla Cobos, Autonomous University of the State of Mexico, Mexico

Arturo Santamaría Ortega, Autonomous University of the State of Mexico, Mexico

Teaching sustainability to undergraduate students, particularly those in design degrees, faces barriers when it comes to relating core concepts such as the triple bottom line (environmental, economic and social issues) or the environmental impacts of technological development with the product's life cycle in their design process or even their daily lives. It results in difficulties to understand and apply the knowledge due to the lack of practical learning when it comes to the topic. Game-based learning has proven a good tool to raise understanding of certain topics, within a fun, flexible, and risk-free environment that enables lateral and critical thinking. Board games are an accessible way to put into practice such concepts and improve understanding through play, experimentation, interaction, and repetition, combining theory with practice, thus they could help design educators to tackle sustainability issues with their students. The aim of this paper is to present the findings of a research project whose objective was to develop and test a board game with sustainability as the main theme for use, within a framework of knowledge transfer, as learning tool in sustainable design courses at the undergraduate level.

## 37224

### *Designing the Interior of a Nursing Home for the Elders of Mauritius*

Ashmita Hurhunde, University of Mauritius, Mauritius

Sabrina Ramsamy-Iranah, University of Mauritius, Mauritius

The phenomenon of population ageing is occurring in Mauritius, due to the progressive ageing of the median age itself. Demographic changes in the social and family structure have altered so drastically in the last decade; the extended family structure has disappeared to be replaced by the nuclear family. Since then there has been an increasing demand to provide elderly people in Mauritius with a good residential. The first part of this research explains the usability, healthcare and safety problems occurring in the interior environment of old age homes in Mauritius. The aim was to understand the different needs of the elders from several cultural and religious backgrounds and designing the interior of an old age home according to it. The aspects of design, colour and sustainability were explored and applied in the design process of the nursing home, focusing on all basic facilities such as a good environment, recreation, yoga and prayer room, green areas, well-ventilated areas, lighting and others. Moreover, the colour preferences of elders were investigated to study how ageing affects colour vision due to the many eye diseases associated with old age. The data yielded during this study was obtained by interviewing elderly people from different nursing homes. Five sample boards were prepared and presented to the residents of the homes. Based on the results obtained, a colour palette was made to design the interior of the nursing home.

35030

## *The Impact of Economic Liberalization on the Environment an Empirical Analysis of Environmental Kuznets Curve Hypothesis*

Apra Sinha, Jamia Millia Islamia University, India

In this paper the Environmental Kuznets Curve (EKC) is hypothesized to investigate the casual association between fossil fuel consumption, carbon dioxide emissions and economic growth in India. The casual association between the aforementioned variables has been analyzed using the interventions such as urban development, industrial development, trade liberalization and financial development. The choice of interventions for this study has been done keeping in view the economic liberalization perspective of India. The main aim of the paper is to investigate the missing feedback link for Environmental Kuznets Curve Hypothesis after incorporating the intervening variables. The period of study is from 1971 to 2011 as it covers the pre- and post-liberalization era in India. Annual time series data for all the variables has been taken from the World Bank Database of country level indicators. The Johansen and Juselius Cointegration testing methodology and Error Correction based Granger causality have been applied since all the variables are integrated of same order. Before economic liberalization, matters relating to environmental degradation were handled by legislative actions, and the problem became more severe when the economy was liberalized because it led to massive industrialization, urbanization, trade liberalization and financial development contributing to increased carbon dioxide emissions. This paper can put forward significant policy implications for environmental protection and sustainable development.

36755

## *Multidimensional Determinants of Caregiving Burden in Chinese Male Caregivers of Older FamilyMembers in Hong Kong*

Xue Bai, The Hong Kong Polytechnic University, Hong Kong

Chang Liu, The Hong Kong Polytechnic University, Hong Kong

Luisa Baladon, The Adults Mental Health Centre of Garraf, Spain

Maria Rubio-Valera, Fundació Sant Joan de Déu, Spain

During recent decades, demographic changes and family structure transformation in Hong Kong have made a growing number of male undertaking caregiving roles. However, there is a noted paucity of research on me's caregiving activities and caregiving burden. The aim of the present study was to examine multidimensional determinants of caregiving burden in Chinese male caregivers of older family members in Hong Kong. Underpinned by the modified stress process model, this study explored how background and contextual factors (caregiver's demographic characteristics, mental health status, caregiving related factors, support and services), primary stressors (care dependency level, special care needs), and secondary stressors (self-efficacy, gender role conflict) might relate to male caregivers' caregiving burden. Gender role conflict was first time added as a secondary stressor in the model and examined as a predictor for male caregivers' burden. Questionnaire survey was conducted with a total of 204 male caregivers who considered themselves as primary caregivers for frail older family members aged 60 and over. Descriptive analyses, bivariate and multivariate analyses were conducted. The results showed that being the son of the care receiver, caregiver's presence of depressive symptoms, higher levels of gender role conflict and use of services and supports predicted a higher burden level. Higher self-efficacy level was negatively associated with care burden. Among all determinants, gender role conflict was found to be the most influential factor of male caregivers' burden. Interactions between background and contextual factors and primary stressors were detected.

35951

## *NOx Behaviors upon Conventional and Advanced Combustion Treatments of Woody Biomass*

Imran Ali Shah, Hebei University of Technology, China

Xiang Gou, Hebei University of Technology, China

Jinxiang Wu, Hebei University of Technology, China

Based on its easy approachability and affordability, bio-energy has always been termed a basic source of energy since the evolution of humankind. Based on this fact, the present study deals with a direct combustion approach towards thermo-chemical characteristics of woody biomass under various combustion media and furnace temperatures through using conventional and advanced combustion technologies. During combustion experiments of woody biomass in the fixed bed tube type furnace, behavioral studies of nitrogen oxides (NOx) as being the hazardous effluent has been extensively carried out. For the experiments, a series of different combustion media have been considered with a constant flow rate for each group of binary gases. The combustion media consists of various binary gas mixtures such as ordinary air (21% O<sub>2</sub> and 79% N<sub>2</sub>), enhanced air (30% O<sub>2</sub> and 70% N<sub>2</sub>) and oxy air (O<sub>2</sub> / CO<sub>2</sub>) with 21%, 30%, 50%, 70%, 90% of O<sub>2</sub> collaborating with rest of CO<sub>2</sub>. Whereas temperature zones in fixed bed furnace were kept at 600 oC, 700 oC, 800 oC, 900 oC, 1000 oC, 1100 oC, 1200 oC for all pre-considered combustion media. Noticeable results have been attained after comparing the NOx investigated from advanced combustion treatments of woody biomass with those of conventional combustion. The NOx reduction efficacy of 72.56% under 21% Oxygen and 68.80% under 30% oxy combustion over conventional combustion have been achieved, whereas 51.43% NOx reduction efficacy has been gained through enhancing temperature from 600 oC to 700 oC under 21% oxy combustion atmospheric medium.



# Conference Highlights: The Past 12 Months

Since 2009, IAFOR has welcomed university presidents, faculty deans, award-winning journalists, national politicians, government ministers, diplomats, charity leaders, think tank directors, documentary makers, movie directors, members of the armed forces, lawyers, doctors, jurists, artists, poets, writers, clergy, scientists, philosophers...





**Above:** To ensure that delegates have an especially memorable experience, IAFOR conferences include tours to places of historic and cultural interest, led by experienced tour guides.

Fushimi Inari Grand Shrine in Kyoto, Japan, features a pathway lined with orange torii, each donated by a Japanese business, that leads 4 km up the mountain.

**Below left:** Professor Ted O'Neill of Gakushuin University, Tokyo, Vice-President (at large) of IAFOR, gives a Keynote Presentation entitled "Change in Japanese Tertiary Education: Implementing Content and Language Integrated Learning (CLIL) in Japan" at The Asian Conference on Language Learning 2017 (ACLL2017). **Below centre:** Featured Speaker Professor Mark Pegrum presents on moving beyond web 2.0 when designing authentic mobile learning for everyday contexts in Asia at The Asian Conference on Technology in the Classroom 2017 (ACTC2017). Mark Pegrum is an associate professor in the Graduate School of Education at The University of Western Australia, where he specialises in mobile learning and, more broadly, e-learning. **Below right:** Professor Barbara Lockee, Associate Director of the School of Education and Associate Director of Educational Research and Outreach at Virginia Tech, USA, explores the changing landscape for instructional design professionals in educational contexts and their potential to serve as change agents in the adoption of learning innovations at ACTC2017.







**Above left:** During the annual haiku workshop at The Asian Conference on Literature 2017 (LibrAsia2017), Hana Fujimoto of the Haiku International Association, Japan, gives a background and history to haiku and invites participants to write their own poems. **Above right:** Also at the LibrAsia2017 haiku workshop, Emiko Miyashita, a prominent haiku poet who is also a councillor for the Haiku International Association, reads world-famous haiku before inviting audience members to compose haiku of their own. In addition to the yearly haiku workshop, LibrAsia2017 features the IAFOR Vladimir Devidé Haiku Award Ceremony, at which all award-winning entries are read out. The IAFOR Vladimir Devidé Haiku Award is an open competition for previously unpublished haiku written in the English language. The award is for haiku regardless of whether in the traditional or modern style; it transcends haiku divisions and is based only on literary merit.

**Below left:** Celebrated international pianist and former Fulbright scholar Marusya Nainggolan of the University of Indonesia, Indonesia, gives a resounding performance at The Asian Conference on Arts & Humanities 2017 (ACAH2017). Marusya Nainggolan performs music nationally and internationally, as well as teaching European Studies at the University of Indonesia and serving as a music counsellor for studies on music and health in the Indonesian National Health Department. **Below right:** At The Asian Conference on Arts & Humanities 2017 (ACAH2017) Dr Yutaka Mino, Director of the Hyogo Prefectural Museum of Art and the Yokoo Tadanori Museum of Contemporary Art, and Honorary Director of the Abeno Harukas Museum of Art, Japan, speaks on "Art and Narrative in the Public Sphere", examining art as a medium for telling stories and creating narrative, and how curation can be used to contextualise and situate works of art.

**Bottom left:** Professor Georges Depeyrot is a monetary historian at the French National Center for Scientific Research (CNRS) in Paris. As part of a Featured Panel Presentation on "Constructing History" at The Asian Conference on Literature 2017 (LibrAsia2017), he discusses the importance of the construction of national history in the creation of personal and national identity. **Bottom right:** In the same Featured Panel Presentation at The Asian Conference on Literature 2017 (LibrAsia2017), Professor Myles Chilton, a member of the Department of English Language and Literature at Japan's Nihon University, explores how history shapes our political decisions today, and how we go about building, revising and deconstructing history.





**Above left:** In a Featured Panel Presentation on the right to education at The Asian Conference on Education & International Development (ACEID2017), Osaka University's Professor Haruko Satoh, Chair of the Politics, Law & International Relations section of IAFOR's International Academic Advisory Board, examines the conference theme, "Educating for Change", in the context of the conference screening of *Among the Believers*, and the friction between preserving culture and challenging culture in areas of the world where education is highly politicised. **Above right:** At the same conference, Professor Adrian Ziderman, Sir Isaac Wolfson Professor in Economics and Business Administration at Bar-Ilan University, Israel, gives an interactive Spotlight Workshop on publication ethics as part of his role as Research Chair and Trustee at the Committee on Publication Ethics (COPE).

**Below left:** Also at ACEID2017 Featured Speaker Jessica Loh gives an engaging presentation entitled "Values for Global Citizenship: Fostering Innovation and Access with the Higher Education Context". Jessica Loh is Director of Outreach at the Institute of International Education, Thailand. **Below middle:** Professor Hiroshi Nittono, Full Professor of Experimental Psychology at the Graduate School of Human Sciences, Osaka University, Japan, gives a Keynote Presentation on the psychology of Japanese "kawaii" culture at The Asian Conference on Psychology & the Behavioral Sciences 2017 (ACP2017). **Below right:** ACP2017 Featured Speaker Professor Ronald Mellado Miller of Brigham Young University – Hawaii, USA, presents on "A Poverty of Hope: Towards a Psychology of Humanitarian Success", discussing how programmes and implementations can meet both physical and psychological needs and how taking into account psychology can enhance humanitarian success and achieve far more than simply extending life.

**Bottom left:** In a Featured Panel Presentation at The Asian Conference on Ethics, Religion & Philosophy 2017 (ACERP2017), Professor Koji Higashikawa of Kanazawa University, Japan, engages the audience on the subject of free speech and hate speech in the context of the conference theme, "History, Story, Narrative". **Bottom middle:** In the same ACERP2017 Featured Panel Presentation, Shiki Tomimasu discusses the important ethical issues surrounding Japan's recent Hate Speech legislation, drawing on his experience at Kanagawa Law Office, Japan. **Bottom right:** In a Featured Panel Presentation entitled "Perspectives on Natural Religion" Professor Thomas Brian Mooney of Charles Darwin University, Australia, discusses key commonalities in the theory and practice of Natural Religion at ACERP2017.







The IAFOR Dubai Conference Series was held in February 2017 at the The InterContinental Festival City Event Centre in Dubai, UAE. This interdisciplinary event considered the joint themes of "Educating for Change" and "East Meets West: Innovation and Discovery".

**Top left:** Professor Donald E. Hall, Dean of the College of Arts and Sciences at Lehigh University, USA, gives a compelling Keynote Presentation at The IAFOR International Conference on Education – Dubai 2017 (IICEDubai2017) on "Interdisciplinary Education for Innovation and Change". Professor Hall is Vice-President of IAFOR. **Top right:** IICEDubai2017 Keynote Speaker Professor Christina Gitsaki of Zayed University, UAE, addresses delegates on the topic of "Education: A Supertanker in an Ocean of Change and Innovation", discussing change in education from a number of different perspectives, at The IAFOR International Conference on Education – Dubai 2017 (IICEDubai2017).

**Below left:** In a Featured Presentation at The IAFOR International Conference on Education – Dubai 2017, Dr Fadi Aloul speaks on bringing education to schools and universities to help create future innovators. Dr Fadi Aloul is Professor and Department Head of Computer Science and Engineering and the Director of the HP Institute at the American University of Sharjah (AUS), UAE. **Below right:** As a Featured Speaker at the same conference, Dr Sufian Abu-Rmaileh of UAE University, UAE, presents on "Leadership Skills & Styles for Successful Administrators". Dr Abu-Rmaileh is President of TA Toastmasters and former President of TESOL Arabia.

**Bottom left:** In a lively Featured Presentation at The IAFOR International Conference on the Social Sciences – Dubai 2017, Dr Virginia Bodolica, American University of Sharjah, UAE, discusses "Managing for Innovation and Sustainability: Lessons from the Gulf Region", illustrating the recent accomplishments of several Gulf-based nations in espousing the principles of the knowledge-based economy and delineating strategic priorities for attaining sustainable development goals. **Bottom right:** Dr Christine Coombe of Dubai Men's College, UAE, gives a Featured Presentation as part of The IAFOR International Conference on Education – Dubai 2017 on educators' productivity, sharing the results of a research project investigating how the most productive TESOLers "fit it all in" and attain the ever-elusive work-life balance.







In January 2017, The IAFOR Hawaii Conference Series 2017 was held at The Hawai'i Convention Center, Honolulu, Hawaii, USA, as two consecutive events on the themes of "East Meets West: Innovation and Discovery" and "Educating for Change".

**Top left:** Professor William G. Staples of the University of Kansas, USA, speaks on "Everyday Surveillance: A Case Study of Student Information Systems" at The IAFOR International Conference on the Social Sciences – Hawaii 2017 (IICSSHawaii2017). Professor Staples is well known internationally for his work in the areas of social control and surveillance. **Top right:** In her Keynote Presentation at The IAFOR International Conference on Sustainability, Energy & the Environment – Hawaii 2017 (IICSEEHawaii2017), Dr Jaimey Hamilton Faris of the University of Hawaii at Manoa, USA, introduces the audience to the concept of "liquid archives". Her academic writing focuses on issues of global trade networks and systems, environmentalism and sustainability in contemporary art, especially in the Asia-Pacific context.

**Below left:** Featured Presenter Donna McIntire-Byrd discusses eco-diplomacy and water conservation at The IAFOR International Conference on Sustainability, Energy & the Environment – Hawaii 2017 (IICSEEHawaii2017). Donna McIntire-Byrd serves as Chief of the Energy & Sustainable Design Unit for the US Department of State Bureau of Overseas Buildings Operations. **Below right:** In a Keynote Presentation, Dr Linda Furuto of the University of Hawaii at Manoa, USA, addresses the audience at The IAFOR International Conference on Education – Hawaii 2017 (IICEHawaii2017) on the topic of "Pacific Ethnomathematics: Navigating Ancient Wisdom and Modern Connections".

**Bottom left:** Professor Curtis Ho of the University of Hawaii at Manoa, USA, sits on a Featured Panel that explored how we educate for positive change, striking a balance between the need to challenge while also respect and preserve local and indigenous cultures and their languages, at The IAFOR International Conference on Education – Hawaii 2017 (IICEHawaii2017). **Bottom right:** In a Featured Presentation at The IAFOR International Conference on Technology in the Classroom – Hawaii 2017 (IICTCHawaii2017), Dr Kristin Palmer discusses the use of open educational resources (OER) and massive open online courses (MOOCs). Dr Kristin Palmer is the Director of Online Learning Programs at the University of Virginia, USA.







**Above:** Auntie Kehaulani Lum and Uncle Bruce Keaulani of the Living Life Source Foundation, Hawaii, demonstrate a traditional Hawaiian greeting at IICEHawaii2017.

**Below left:** Distinguished psychologist Professor Michael B. Salzman of the University of Hawaii at Manoa speaks as part of a Featured Panel on “Aloha as a Way of Being: Hawaiian Perspectives on Learning” at The IAFOR International Conference on Education – Hawaii 2017 (IICEHawaii2017). **Below right:** Dr Xu Di, also of the University of Hawaii at Manoa, addresses the audience as part of the same IICEHawaii2017 Featured Panel. Dr Di’s recent publications focus on bridging Eastern and Western philosophy for educational practices.

**Bottom left:** Professor Ken Urano, Featured Speaker at The IAFOR International Conference on Language Learning – Hawaii 2017 (IICLLHawaii2017), presents on the topic of “Developing and Implementing an English for Specific Purposes Syllabus for Business Majors in Japan”. Professor Urano is a member of the Faculty of Business Administration, Hokkai-Gakuen University, in Sapporo, Japan, where he mainly teaches English to business students. **Bottom right:** In a Featured Presentation on statistics in the cognitive/ risk era, award-winning research scientist and innovator Dr Nathaniel Newlands of the University of Victoria, Canada, discusses the increasingly critical role statistics plays in unravelling the complexity of our world at The IAFOR International Conference on the Social Sciences – Hawaii 2017 (IICSSHawaii2017).







The Asia-Pacific Conference on Security and International Relations 2016 (APSec2016) brought together a range of academics, policymakers and practitioners to discuss the evolving issues in security and international relations in the Asia-Pacific, a volatile region in which states and peoples fight for power, influence, resources and basic human rights.

**Above left:** Ambassador Yukio Satoh gives his Keynote Presentation entitled “Shifting Strategic Balance and Asian Security” at APSec2016. Former Permanent Representative of Japan to the United Nations and former ambassador of Japan to Australia and the Netherlands, Yukio Satoh is now based at the Japan Institute of International Affairs, Japan. **Above right:** Current President of the Asian Political and International Studies Association (APISA) and Associate Dean of the Graduate School of International Studies, Ewha Womans University, South Korea, Professor Brendan Howe welcomes delegates to APSec2016, held jointly with APISA’s tenth annual congress in Osaka, Japan.

**Below left:** In a Keynote Presentation at APSec2016, Professor Jun Arima, based at the Graduate School of Public Policy, University of Tokyo, Japan, speaks on Asia’s energy outlook. Professor Arima was Director General of the Japan External Trade Organization (JETRO), London, UK, and Special Advisor on Global Environmental Affairs for the Ministry of Economy, Trade and Industry (METI) in Japan from 2011 to 2015. **Below right:** Keynote Speaker Xingzui Wang, Executive Vice-President of the China Foundation for Poverty Alleviation, addresses delegates at the Plenary Session of APSec2016 on fighting poverty in China.







**Above left:** Did news coverage create the man or did the man create the news coverage? Professor Gary Swanson discusses the rise of Donald Trump at at The Asian Conference on Media & Mass Communication 2016 (MediAsia2016). Professor Swanson has received more than 75 awards for broadcast excellence including three EMMYs. **Above middle:** Grand Prize Winner of the IAFOR Documentary Film Award 2016, *PLACEBO: ALT. RUSSIA* – a documentary which explores the alternative cultures that are present within Russia's major cities, directed by Charlie Targett-Adams and announced at The Asian Conference on Film & Documentary 2016 (FilmAsia2016) in Kobe, Japan. IAFOR is proud to support the IAFOR Documentary Film Award, a global competition celebrating the best in documentary filmmaking. Documentary has a rich history of exposing truths, telling stories, raising awareness and creating discussion – all practices valued at IAFOR. **Above right:** Professor Richard Roth of Northwestern University's Medill School of Journalism, Media, Integrated Marketing Communications delivers his Keynote Presentation on contemporary issues in journalism at MediAsia2016.

**Below:** The International Academic Forum is proud to be based in Japan, and we organise a number of events throughout the year that showcase the best of Japanese culture, ranging from the raw power of the taiko drums to the understated beauty of the tea ceremony, from martial arts demonstrations by world class masters to hands-on calligraphy workshops by university clubs and haiku workshops by leading poets. Built into our conference programmes, this range of activities gives delegates a taste of Japan's rich and unique culture.







**Above left:** Addressing delegates at The Asian Conference on Education 2016 (ACE2016), Dr Peter McCagg gives a Keynote Presentation entitled "International Liberal Arts: Meeting Japan's Higher Education Needs in the Global and Digital Era". In his talk he identified dimensions of the university experience in Japan that can and need to be strengthened in order to create coherence and integrity in students' intellectual experiences. Dr McCagg is the Vice President for Academic Affairs at Akita International University, Japan. **Above right:** In her Keynote Presentation, Professor Insung Jung of the International Christian University, Japan, examines the ways MOOCs are being used by individual learners and university systems, and their impact on access, quality and cost in higher education, at The Asian Conference on Society, Education and Technology 2016 (ACSET2016).

**Below:** Professor Grant Black (**below top left**), Vice-President of The International Academic Forum (IAFOR), chairs a Featured Symposium entitled "The Globalisation Process for University Education in Japan" at The Asian Conference on Education 2016 (ACE2016) in Kobe, Japan. Professor Grant Black is an associate professor in the program for Modern Languages and Cultures, Faculty of Humanities and Social Sciences at the University of Tsukuba, and an adjunct lecturer in the Faculty of Commerce at Chuo University, Japan. The symposium aimed to integrate education theory and research with the context of long-term social processes in order to address policy reform and structural change in Japanese universities, and contributors included Dr Fumiko Kurihara of Chuo University (**below top middle**), Dr Maria Gabriela Schmidt of the University of Tsukuba (**below top right**), Dr Yasuo Nakatani of Hosei University (**below bottom left**), Dr Yukiko Mishina of the University of Tokyo, Japan (**below center middle**) and Dr Reiko Yamada of Doshisha University (**below bottom right**), all based in Japan.







**Above left:** At The IAFOR International Conference on the City 2016 (City2016), renowned critic and theorist Professor Bill Ashcroft of the University of New South Wales, Australia, gives a Keynote Presentation on the concept of the Transnation. **Above centre:** Alonso Carnicer, a news reporter at TV3, the Catalan Television channel, and Keynote Speaker at City2016, discusses his Catalan Television documentary, *Shanty Towns, the Forgotten City*, which tells the story of impoverished settlements in Barcelona. **Above right:** Novelist, playwright and poet Gloria Montero, Global2016 Featured Speaker, delivers a talk entitled "Filling in the Lonely, Empty Places" at The IAFOR International Conference on Global Studies 2016 (Global2016).

**Below:** An image from the series *Life After Injury* by Ukrainian photojournalist Alexey Furman, Grand Prize Winner of the 2016 IAFOR Documentary Photography Award. "With this project I would like to raise awareness on a growing number of war veterans in Ukraine." Winners were announced at The European Conference on Media, Communication & Film 2016 (EuroMedia2016) in Brighton, England. As an organisation, IAFOR's mission is to promote international exchange, facilitate intercultural awareness, encourage interdisciplinary discussion, and generate and share new knowledge. In keeping with this mission, in appreciation of the great value of photography as a medium that can be shared across borders of language, culture and nation, and to influence and inform our academic work and programmes, the IAFOR Documentary Photography Award was launched as a competition that would help underline the importance of the organisation's aims, and would promote and recognise best practice and excellence. In support of up-and-coming talent, the IAFOR Documentary Photography Award is free to enter. For more information about the award please visit: [www.iaforphotoaward.org](http://www.iaforphotoaward.org).







**Above left:** In her role as Keynote Speaker at The European Conference on Arts & Humanities 2016 (ECAH2016), Professor Anne Boddington explores the idea of the “stained glass ceiling”, by examining the challenge of achieving effective intersectionality through gender and ethnic inequalities. Anne Boddington is Professor of Design Innovation and Dean of the College of Arts and Humanities. **Above right:** Professor Sanja Bahun of the University of Essex, UK, addresses the part played by the arts, and literary art in particular, in transitional societies, in a Keynote Presentation at The European Conference on Literature & Librarianship 2016 (LibEuro2016). Professor Sanja Bahun’s area of expertise is international modernism, and her research interests include theory of comparative arts, world literature, psychoanalysis, and women’s and gender studies.

**Below left:** Jared Baxter, ECAH2016 Keynote Speaker and Vincent van Gogh researcher, presents on “Vincent van Gogh’s Symbolist Art”. **Below right:** Dr Eddie Bruce-Jones of Birkbeck College School of Law, University of London, UK, explores the tensions and possibilities inherent in interdisciplinary work at the junction of the legal, the social-scientific and the literary, in his Keynote Presentation at The European Conference on the Social Sciences 2016 (ECSS2016). **Bottom left:** Toshihiko Sakaguchi, EBMC2016 Keynote Speaker and Director-General of JETRO London, gives a talk entitled “Japanese Economy and Business Opportunities” during the Plenary Session of The European Business & Management Conference 2016 (EBMC2016). **Bottom right:** At The European Conference on Politics, Economics & Law 2016 (ECPLE2016), Professor Michael Clarke, Keynote Speaker and Former Director General of the Royal United Services Institute, discusses the way in which the essential rules of international politics were formed and those states and societies that shaped them.







**Above left:** Speaking on the dialectics of communication, Professor Svetlana Ter-Minasova presents during the Plenary Session at The European Conference on Psychology & the Behavioral Sciences 2016 (ECP2016). Professor Ter-Minasova is President of the Faculty of Foreign Languages and Area Studies at Lomonosov Moscow State University, Russia. **Above right:** Dr Amy Azano, Keynote Speaker at The European Conference on Education 2016 (ECE2016), gives an animated presentation entitled "Leveraging Place and Moving Toward Glocalized Learning".

**Below left:** In a Keynote Presentation on reducing fear, increasing confidence and reaching students who think that learning is an ordeal, Ken Wilson, a teacher trainer, and published author of a large amount of ELT materials, outlines how some simple group and game activities can serve as confidence builders for students at The European Conference on Language Learning 2016 (ECLL2016).

**Below right:** At The European Conference on Language Learning 2016 (ECLL2016), Keynote Speaker Professor Jean-Marc Dewaele argues that these non-linguistic benefits of language learning are illustrations of multicompetence. Jean-Marc Dewaele is Professor of Applied Linguistics and Multilingualism at Birkbeck, University of London.

**Bottom left & right:** IAFOR's European Conference Series is held in Brighton, UK, and features an optional tour of Bateman's, the Jacobean home of *The Jungle Book* author Rudyard Kipling, and the spectacular Hever Castle and gardens, once home to Anne Boleyn, Henry VIII's second wife.







**Above left:** Dr James McNally of the University of Michigan, USA, is Director of the NACDA Program on Aging, a data archive containing over 1,500 studies related to health and the aging lifecourse. As Featured Speaker & Conference Co-Chair for The Asian Conference on Aging & Gerontology 2016 (AGen2016), he delivers a Featured Presentation on the individual and societal benefits for caregivers to elderly family members. Professor McNally is Vice-President of The International Academic Forum (IAFOR). **Above right:** Professor Jun Arima, of the Graduate School of Public Policies, University of Tokyo, Japan, gives a Keynote Presentation on the significance of the Paris Agreement in the history of climate negotiation, its major points and Japan's action, at The Asian Conference on Sustainability, Energy and the Environment 2016 (ACSEE2016).

**Below left:** As Keynote Speaker at AGen2016, Professor Hiroshi Ishida discusses social survey data sets and data-archiving activities in Japan and introduces the Social Science Japan Data Archive (SSJDA). Hiroshi Ishida is Professor of Sociology at the Institute of Social Sciences, University of Tokyo. **Below right:** Michael Alfant, President Emeritus of the American Chamber of Commerce in Japan and Group President and CEO of Fusions Systems Group, headquartered in Tokyo, listens attentively during the Plenary Session of the The Asian Business & Management Conference 2016 (ABMC2016) in Kobe, Japan.

**Bottom left:** Traditional Awa Odori dance performance at The Asian Conference on the Social Sciences 2016 (ACSS2016). **Bottom right:** The Conference Welcome Reception provides an excellent opportunity for delegates to network and get to know each other.







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# Reviewers

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# THINK.IAFOR.ORG

## THE ACADEMIC PLATFORM

THINK.IAFOR.ORG is IAFOR's online magazine, launched in early 2016. *THINK* is an ambitious project conceived by academics, for academics, with the following objectives:

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To make original, high-quality, thought-provoking multimedia content freely accessible to a wide readership;

To facilitate the opportunity for academics to step outside of the traditional research publishing status quo – to get creative, explore different disciplines and to have their ideas heard, shared and discussed by a diverse, global academic audience.

Content published on *THINK* spans a wide variety of disciplines and the format is varied, encompassing full research papers, long-form journalism, opinion pieces, creative writing, interviews, podcasts, video, photography, artwork and more. Current contributing authors include leading academics such as Professor Svetlana Ter-Minasova, Professor A. Robert Lee, Professor Bill Ashcroft and Professor J. A. A. Stockwin.

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([ecll.iafor.org](http://ecll.iafor.org))

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**The European Conference on Ethics, Religion & Philosophy**

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**July 11–12**

**The European Conference on Arts & Humanities**

([ecah.iafor.org](http://ecah.iafor.org))

**The European Conference on Media, Communication & Film**

([euromedia.iafor.org](http://euromedia.iafor.org))

# **Upcoming Events**

[www.iafor.org/conferences](http://www.iafor.org/conferences)

## **Barcelona, Spain, 2017**

**July 14–16**

**The IAFOR International Conference on the City**  
([city.iafor.org](http://city.iafor.org))

**The IAFOR International Conference on Global Studies**  
([global.iafor.org](http://global.iafor.org))

## **Hawaii, USA, 2018**

**January 4–6**

**The IAFOR International Conference on Education – Hawaii**  
([iicehawaii.iafor.org](http://iicehawaii.iafor.org))

**The IAFOR International Conference on Sustainability, Energy & the Environment – Hawaii**  
([iicseehawaii.iafor.org](http://iicseehawaii.iafor.org))

## **Dubai, UAE, 2018**

**February 16–18**

**The IAFOR International Conference on Education – Dubai**  
([iicedubai.iafor.org](http://iicedubai.iafor.org))

**The IAFOR International Conference on Social Sciences – Dubai**  
([iicssdubai.iafor.org](http://iicssdubai.iafor.org))

## **Kobe, Japan, 2018**

**March 22–24**

**The Asian Conference on Psychology & the Behavioral Sciences**  
([acp.iafor.org](http://acp.iafor.org))

**The Asian Conference on Ethics, Religion & Philosophy**  
([acerp.iafor.org](http://acerp.iafor.org))

**March 26–28**

**The Asian Conference on Education & International Development**  
([aceid.iafor.org](http://aceid.iafor.org))

**March 30 – April 1**

**The Asian Conference on Arts & Humanities**  
([acah.iafor.org](http://acah.iafor.org))

**The Asian Conference on Literature**  
([librasia.iafor.org](http://librasia.iafor.org))

**April 27–30**

**The Asian Conference on Language Learning**  
([acll.iafor.org](http://acll.iafor.org))

**The Asian Conference on Technology in the Classroom**  
([actc.iafor.org](http://actc.iafor.org))





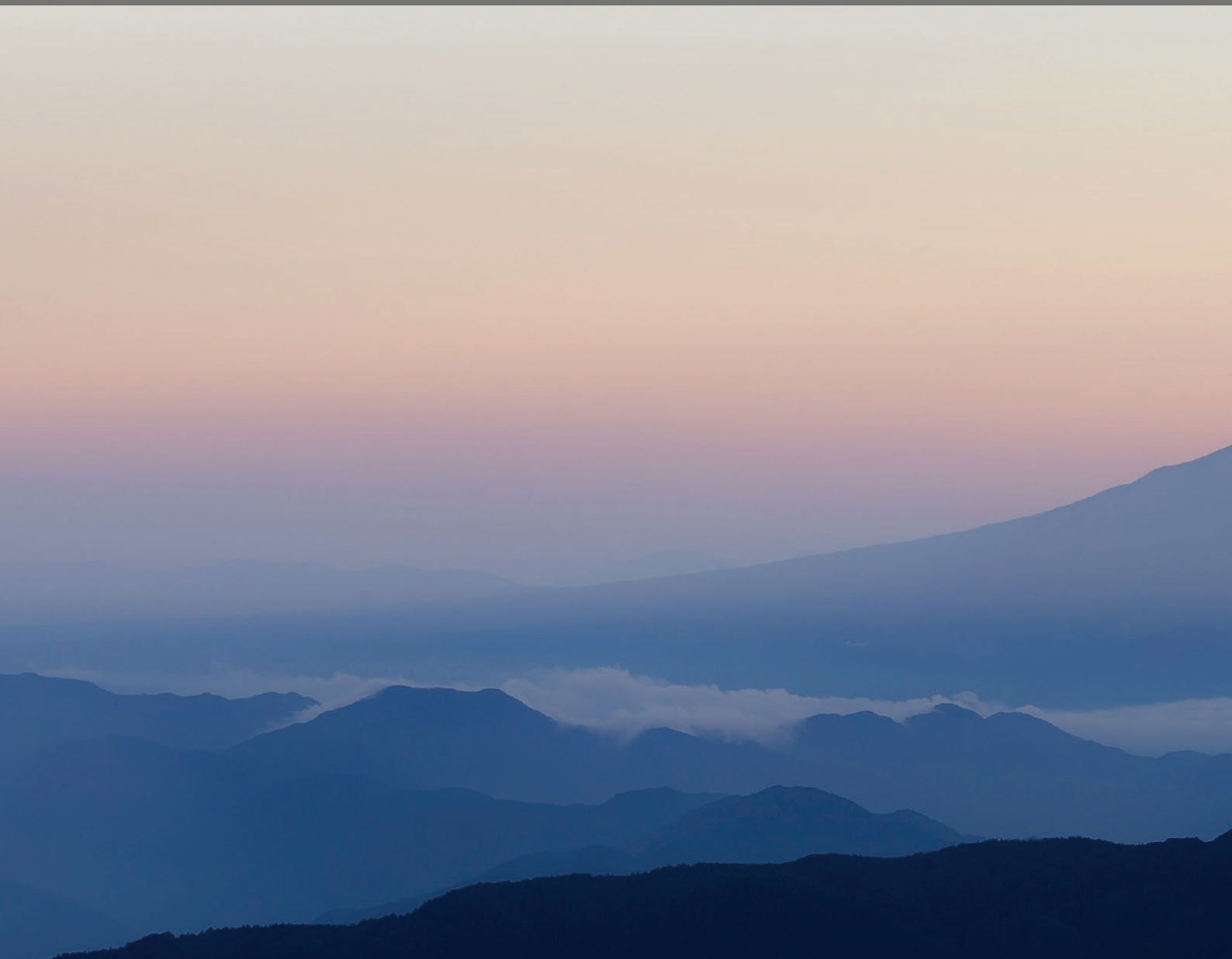
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