



# The 17th International Conference on Electronic Business



December 4-8, 2017

Novotel Dubai Al Barsha



UNIVERSITY  
OF WOLLONGONG  
IN DUBAI

University of Wollongong in Dubai (UOWD) was established in the United Arab Emirates in 1993 by one of the world's top ranking universities, the University of Wollongong in Australia. Originally known as the Institute for Australian Studies, UOWD is a vibrant, dynamic and diverse institution, retaining a strong Australian heritage. Over the past 24 years, we have established an outstanding record for educating highly employable graduates and gained an international reputation for the quality of our educational practices.

With over 4,400 students from over 117 countries being taught by academics from more than 40 countries, UOWD offers the best traditions of western education in a truly multicultural learning environment. We have combined the academic excellence with the culture and excitement of the cosmopolitan city of Dubai, to provide a dynamic, stimulating and rewarding environment for students, research practitioners and business professionals alike. At the same time, we are active contributors to the burgeoning knowledge economy of the UAE. Until now, we have over 8000 alumni working in the UAE government and enterprises.



On behalf of the UOWD, I would like to extend our warm welcome to the international scholars and students to the 17<sup>th</sup> International Conference on Electronic Business. We also wish you enjoy the best season in Dubai.

Conference Chair

Dr. Kathy Ning Shen

Email: [kathyshen@uowdubai.ac.ae](mailto:kathyshen@uowdubai.ac.ae)

## Conference Program Summary

Dec. 4	2:00pm-7:00pm	Onsite Reception at the Conference Hotel
	3:30pm-5:30pm	Board Meeting (By invitation only)
	6:30pm-8:30pm	Welcome Dinner (365 at Conference Hotel)
Dec. 5	8:30am-5:00pm	Onsite Reception at the Conference Hotel
	9:00am-9:30am	Conference Commence and Welcome
	9:30am-10:30am	Keynote I
	10:30am-11:30am	Keynote II
	11:30am-12pm	Panel Discussion
	12:00pm-2:00pm	Lunch break (365 at Conference Hotel)
	2:00pm-3:45pm	Parallel sessions 1 & 2
	3:45pm-4:00pm	Break
	4:00-5:45pm	Parallel Sessions 3 & 4
Dec. 6	8:30am-5:00pm	Onsite Reception at the Conference Hotel
	8:15am-10am	Parallel Sessions 5 & 6
	10:00am-10:15am	Break
	10:15am-12:00pm	Parallel Sessions 7 & 8
	12:00pm-2:00pm	Lunch break (365 at Conference Hotel)
	2:00pm-3:45pm	Parallel Sessions 9 & 10
	3:45pm-4:00pm	Break
	4:00pm-5:45pm	Parallel Sessions 11& 12
	7:00pm-9:00pm	Gala Dinner at Address Downtown Hotel
Dec. 7	Site Visit with Smart Dubai (on spot reservation)	
Dec. 8	Optional Tour & Safari (on spot reservation)	

Registration & Tour Contact Information:

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## Keynote Speeches

### **Keynote I: When Smart Cities meet Big Data – Research Opportunities and Challenges**

“Smart Cities” is a new and evolving concept that aims to capitalize on new technologies and developments to enhance a city’s systems, operations and service delivery. With the proliferation of big data and Internet of Things, research on issues related to smart cities attracts great attention and interest from both academics and practitioners across many different fields. In this talk, I would like to present several opportunities and challenges in doing research in this fast-growing area from the perspective of an academic researcher in the field of Information Systems.



**Prof. Patrick Y.K. Chau** graduated with a PhD in business administration from the Richard Ivey School of Business (formerly Western Business School), The University of Western Ontario, Canada. I returned to Hong Kong and joined the Hong Kong University of Science and Technology (HKUST) as an Assistant Professor of Information and Systems Management in 1992. I was promoted to Associate Professor with tenure in July 1998. Between October 1996 and April 1999, I was Associate Dean and Director of Undergraduate Programs of the School of Business & Management.

I moved to the School of Business, Faculty of Business and Economics, The University of Hong Kong (HKU) in May 1999. From July 2001 to June 2005 and from September 2010 to August 2011, I was Associate Dean and BBA Program Director. From September 2011 to July 2013, I was Associate Dean (Teaching and Learning). In July 2013, I assumed the Directorship of the School of Business. In February 2014, I was conferred as Padma and Hari Harilela Professor in Strategic Information Management.

In 2010, I was appointed as Chang Jiang Scholar by the Ministry of Education, the People's Republic of China. In December 2013, I was conferred as AIS Fellow by the Association for Information Systems. In September 2014, I was appointed by Zhejiang University as Qiushi Chair Professor at their School of Management. Since January 2014, I have been the Editor-in-Chief of Information and Management (I&M). From 2012-2013, I was Co-editor of I&M. From 2007-2011, I was Co-editor of Electronic Commerce Research & Applications. I was also Global Co-editor of Data Base in the same period.

## **Keynote II: Multi-level Research Design**

Conventional survey studies usually collect individual data from different groups and analyze them independently in each group, unless there is no significant group difference. In contrast, multilevel data analysis allows individual data with organizational differences to be included in one linear model by treating these differences as higher-level independent variables. Such kind of model is known as hierarchical linear model (HLM). This lecture introduces various data models and discusses why, when, and how to perform multilevel data analysis. The applications of multilevel data analysis are elucidated using two published studies in information systems field.



Eldon Y. Li is a distinguished professor and former department chair of MIS at National Chengchi University, an adjunct chair professor of Asia University in Taiwan, and a former professor and coordinator of the MIS program at College of Business, California Polytechnic State University, San Luis Obispo, California, USA. He was the dean of College of Informatics and the director of Graduate Institute of Social Informatics at Yuan Ze University in Taiwan, as well as professor and founding director at the Graduate Institute of Information Management at the National Chung Cheng University in Chia-Yi, Taiwan. He received his PhD from Texas Tech University in 1982. He is the editor-in-chief of several international journals. He has

published more than 200 papers in various topics related to innovation and technology management, human factors in information technology (IT), strategic IT planning, software quality management, and information systems management. His papers appear in *Journal of Management Information Systems*, *Research Policy*, *Communications of the ACM*, *Internet Research*, *Expert Systems with Applications*, *Computers & Education*, *Decision Support Systems*, *Information & Management*, *International Journal of Medical Informatics*, *Organization*, among others.

## Paper Sessions

Session	ID	Presentations (* indicates the presenters)
		<b>Dec. 5: 2:00-3:45pm</b>
<b>1: Big Data Applications</b>  <b>Session Chair: Abbas Tarhini</b>	47	<b>Emergency Management System Design for Accurate Data: A Case Study</b>  *Abbas Tarhini and F. Jordan Srouf: <i>Lebanese American University, Beirut, Lebanon</i>  Nabil Badr: <i>Grenoble Graduate School of Business, France</i>
	68	<b>Analysing Big Data Projects using Github and JavaScript Repositories</b>  *John Hamilton, Singwhat Tee, Jason Holdsworth, and Mohammad Azeez Alshomali: <i>James Cook University, Australia</i>
	69	<b>GitHub: Factors Influencing Project Activity Levels</b>  John Hamilton, Singwhat Tee, Jason Holdsworth, and *Mohammad Azeez Alshomali: <i>James Cook University, Australia</i>
	46	<b>Blockchain Technology Acceptance in Electronic Medical Record System</b>  *Lakkana Wanitcharakkhakul and Siriluck Rotchanakitumnuai: <i>Thammasat University, Thailand</i>
<b>2: E-commerce Consumer Behavior</b>  <b>Session Chair: Raymond Liu</b>	10	<b>The Antecedents and Outcomes of Identifiability in Online Brand Communities</b>  Stephanie Meek*, <i>Edith Cowan University, Australia</i>  Kathy Ning Shen, <i>University of Wollongong, Dubai</i>
	16	<b>Exploring How Conflict and Uncertainty Affect Repurchase Intention in Social Commerce --- The Mediating Effect of Perceived Deceptiveness</b>  *Jao-Hong Cheng and Ren-Gui Liu: <i>National Yunlin University of Science and Technology, Taiwan</i>  *Timon C. Du.: <i>The Chinese University of Hong Kong, Hong Kong</i>
	17	<b>Do Security Breaches Matter to Consumers?</b>  Noury Janse, Carol Ou, *Spyros Angelopoulos: <i>Tilburg University, The Netherlands</i>  Robert Davison and Jelly Jia: <i>City University of Hong Kong, Hong Kong</i>

	<b>19</b>	<b>How Consumers' Perceived Importance of Music, Identity, Personal Experience, Internet Use, and Social Media Influence Their Music Preference, Consumption Satisfaction, and Loyalty</b>  *Raymond Liu and Jurui Zhang: <i>University of Massachusetts Boston, USA</i>
		<b>Dec. 5: 4:00-5:45pm</b>
<b>3: Fintech Session Chair: Xubin Luo</b>	<b>22</b>	<b>Constructing Media-based Enterprise Networks for Stock Market Risk Analysis</b>  Rong Xing and Shengxin Dong: <i>Southwestern University of Finance and Economics, China</i>  Qinyu Wang: <i>Citigroup Services and Technology (China) Limited, China</i>  Qing Li, *Xubin Luo, and Jiang Duan: <i>Southwestern University of Finance and Economics, China</i>
	<b>36</b>	<b>Progress of Fintech Industry from Venture Capital Point of View</b>  *Ku-Hsien Hsieh, Eldon Y. Li: <i>National Chengchi University, Taiwan</i>
	<b>45</b>	<b>Fintech trends relationships research: A Bibliometric Citation Meta-analysis</b>  *Pei-Shan Wu: <i>National Chengchi University, Taiwan</i>
	<b>71</b>	<b>Real Money Trading in Virtual Worlds</b>  Mohamed Nazir, John Hamilton, and *Singwhat Tee: <i>James Cook University, Australia</i>
<b>4: E-commerce Consumer Behavior Session Chair: Heng Tang</b>	<b>35</b>	<b>The Study on Cross Border E-Commerce Startup</b>  *Tzu Shan Tseng: <i>Ming Chuan University, Taiwan</i>
	<b>50</b>	<b>Predicting the Mobile Consumer Purchase Behavior using Quantified Visual Preferences</b>  *Young-Joon Yu and Jae-Hyeon Ahn: <i>KAIST, South Korea</i>
	<b>51</b>	<b>Impacts of Users' Extra-role Behaviors on Bright Internet Policy Adoption</b>  Yujuan Zheng and *Wei Huang: <i>Xi'an Jiaotong University, Xi'an, Shaanxi, China</i>  Jae Kyu Lee: <i>Bright Internet Research Center at KAIST, Korea</i>  Helen Xiaohui Bao: <i>University of Cambridge, United Kingdom</i>
	<b>41</b>	<b>Curbing Shopping Cart Abandonment in C2C Markets — An Uncertainty Reduction Approach</b>

		*Heng Tang and Xiaowan Lin: <i>University of Macau, Macau</i>
		<b>Dec. 6: 8:15am-10am</b>
<b>5: Blockchain: Session Chair: Elissar Toufaily</b>	<b>28</b>	<b>Regtech Evolution: The Trustchain</b> *Grant K.J. Huang and Kuo-Huie Chiang: <i>National Chengchi University, Taiwan</i>
	<b>30</b>	<b>Integrating Innovation Diffusion Theory and the Technology Acceptance Model: the adoption of blockchain technology from business managers' perspective</b> *Antonio T.F. Lou and Eldon Y. Li: <i>National Chengchi University, Taiwan</i>
	<b>32</b>	<b>The Acceptance of the Application of Blockchain Technology in the Supply Chain Process of the Thai Automotive Industry</b> *Sowichaya Supranee and Siriluck Rotchanakitumnu: <i>Thammasat University, Thailand</i>
	<b>72</b>	<b>Blockchain Technology Adoption: Implications and Challenges</b> Soumaya Ben Dhaou: <i>United Nations University, Portugal</i> Tatiana Zalan and *Elissar Toufaily: <i>American University in Dubai, UAE</i>
<b>6: Supply Chain Management</b>  <b>Session Chair: George Bopi-Kerepa</b>	<b>39</b>	<b>The Impact of Product Variety and Product Diversification on Inventory Levels: From a Distributor Perspective</b> *Hsin-Lu Chang, Yen-Chun Chou, and Hui-Ching Yang, <i>National Chengchi University, Taiwan</i>
	<b>52</b>	<b>Research On Multifunctional Integrated Internet Platforms</b> *Zhang Guoyou: <i>School of Economics and finance, Xi'an JiaoTong University, China &amp; School of Business administration, Tongling University, China</i>  Jiang Wenlong, Wang Ying, and Liu Shang: <i>School of business administration, Tongling University, China</i>
	<b>70</b>	<b>Decentralisation and Service Delivery</b> *George Bopi-Kerepa, John Hamilton, and Murray Prideaux: <i>James Cook University, Townsville</i>
	<b>74</b>	<b>Adopting IoT Technology to Optimize Intelligent Water Management</b> Eldon Y. Li and Wen-Hsin Wang*, <i>National Chengchi University, Taiwan</i>  Ying-Sung Hsu, <i>FengChia University, Taiwan</i>



		<b>Dec. 6: 10:15am-12pm</b>
<b>7: Smart City Session</b>  <b>Chair: Wei-His Hung</b>	<b>33</b>	<b>Research on transforming capability of economic system and its impact on urban competitiveness</b>  Li Shi, *Sheng-Yu He, and Jia-Xian Qiu: <i>University of Information Technology, Chengdu, China</i>
	<b>37</b>	<b>Principles of Increasing the Interactivity of Mobile Applications of Smart Parking</b>  Wei-Hsi Hung: <i>National Chengchi University, Taiwan</i>  *Kai-Ju Chuang: <i>National Chengchi University, and Hsuan Chuang University, Taiwan</i>  Yen-Chieh Liao: <i>National Chengchi University, Taiwan</i>
	<b>73</b>	<b>Constructing the Smart Hotel Architecture – A Case Study in Taiwan</b>  *Wen-Chi Lai and Wei-Hsi Hung: <i>National Chengchi University, Taiwan</i>
	<b>44</b>	<b>Replication Attack Detection in Mobile Wireless Sensor Network with Leach-Me Routing Protocol</b>  Da-Chun Chien, *Cheng-Yuan Ku, and Shu-Rong Huang <i>National Chiao Tung University, Taiwan</i>
<b>8: IT Capability and Decision Support Session</b>  <b>Chair: Dongming Xu</b>	<b>11</b>	<b>Deciding fast and slow in risk decision making: an experimental study</b>  *Xiaorui Wang, Ronggang Zhou, and Renqian Zhang: <i>Beihang University, China</i>
	<b>23</b>	<b>Improving the performance of lumpy demand forecasting – Taking W company as an example.</b>  Hao-Chun Chuang, *Hsin-Lu Chang, and Po-Chun Hsu: <i>National Chengchi University, Taiwan</i>
	<b>34</b>	<b>The nature of IT firms: A systemic Literature Review and Analysis</b>  Sha Huang and *Dongming Xu: <i>The University of Queensland, Australia</i>
	<b>57</b>	<b>Research on the development of measurement scale for the synergy of college technological and creative team</b>  Chuanhao Fan, *Ting Wen: <i>Hohai University, China</i>  Buchao Xu: <i>East China University of Technology, China</i>  Jigan Wang and Kaiyuan He: <i>Hohai University, China</i>
		<b>Dec. 6: 2:00-3:45pm</b>

<b>9: Smart City (2)</b> <b>Session Chair: Soly Mathew Biju</b>	43	<b>A Study of Conflict and Resistant Behaviors in the Implementation of the Ecosystem Platform</b> Wei-Hsi Hung and *Yen Sheng Tsai: <i>National Chengchi University, Taiwan</i>
	76	<b>Industries 4.0 and Leadership</b> *Kylie Prince: <i>James Cook University, Cairns</i>
	27	<b>Inferring social media users' demographics from profile pictures: A Face++ analysis on Twitter users</b> Soon-Gyo Jung, Bernard Jim Jansen, *Joni Salminen, Jisun An, Haewoon Kwak <i>Qatar Computing Research Institute, Hamad Bin Khalifa University, Qatar &lt;Virtual Presentation&gt;</i>
	14	<b>Problems of Data Science in Organizations: An Explorative Qualitative Analysis of Business Professionals' Concerns</b> *Joni Salminen, Bernard J Jansen, Milica Milenkovic <i>Qatar Computing Research Institute, Hamad Bin Khalifa University, Qatar &lt;Virtual Presentation&gt;</i>
<b>10: E-Health</b> <b>Session Chair: Bo Zhang</b>	13	<b>Modelling and Analysis of E-Health Eco-Systems: A Case Study of the United States</b> *Lena Stephanie Felix: <i>Nanyang Technological University, Singapore</i>
	25	<b>Drivers of eHealth Adoption: Linking eHealth Adoption to Service Concept</b> Hsinlu Chang, *Weiwen Szu, and Yuju Tu: <i>National Chengchi University, Taipei City, Taiwan</i>
	54	<b>Senior Population's Acceptance and Expectance of Wearable Medical Devices in China</b> *Bo Zhang and Yan Li: <i>ESSEC Business School, Singapore</i>
	64	<b>Study on the influence mechanism of knowledge inertia on the adoption of innovative medical equipment</b> Xun Zhang*, <i>Hohai University, China</i> Biao Xu, <i>Nanjing University, China</i>
		<b>Dec. 6: 4:00-5:45pm</b>
<b>11: Design Science</b>	20	<b>A Co-Citation Bibliometric Analysis of Crowdsourcing Research</b> Xiaobei Liang and *Minghua He : <i>Tongji University, China</i>

<b>Session Chair: Benjamin Yen</b>	<b>21</b>	<b>Graph Transformation Based Guidance for Web Navigation</b> <i>*Benjamin Yen: The University of Hong Kong, Hong Kong</i> <i>Kevin Ni: Southwestern University of Finance and Economics</i> <i>Chinaand Lk Chu: The University of Hong Kong, Hong Kong</i>
	<b>38</b>	<b>Digital Multimedia Design Integration Model based on Experience Design</b> <i>*Kai-Ju Chuang: National Chengchi University, and Hsuan Chuang: University. Taiwan</i>
	<b>62</b>	<b>Senior Citizens' Self-Efficacy for ICT Use: The Influence of Gender, Social Influence and Social Support</b> <i>Chong Guan: Singapore University of Social Sciences, Singapore</i> <i>Joicey Jie Wei : Singapore University of Social Sciences, Singapore</i> <i>Calvin M. L. Chan: Singapore University of Social Sciences, Singapore</i> <i>* Allan Beng Hock Chia : Singapore University of Social Sciences, Singapore</i>
<b>12: E-commerce Consumer Behaviour:</b>  <b>Session Chair: Kathy Ning Shen</b>	<b>15</b>	<b>Gender effect on e-commerce sales of experience gifts: Preliminary empirical findings &lt;Virtual Presentation&gt;</b> <i>*Joni Salminen, Qatar Computing Research Institute, HBKU; and Turku School of Economics</i> <i>Sarem Seitz, Otto-Friedrich University Bamberg</i> <i>Bernard J. Jansen, Qatar Computing Research Institute, HBKU</i> <i>Tommi Salenius, Parcero</i>
	<b>31</b>	<b>The Multi-channel E-Service Quality for Thai Electronic Tourism</b> <i>Siriluck Rotchanakitumnuai*</i> <i>Thammasat University, Thailand</i>
	<b>56</b>	<b>Spillover Effect of Consumer Awareness on Third-Party Sellers' Selling Strategies on Retail Platforms</b> <i>Wen Song, Dalian University of Technology</i> <i>Jianqing Chen*, The University of Texas at Dallas</i> <i>Wenli Li, Dalian University of Technology</i>
	<b>5</b>	<b>Discussion on the Quality of Financial Electronic Payment System: Combined with Fuzzy AHP and Fuzzy TOPSIS</b>

		<p>Li-Ru Chen, Kai-Hao Liu, Shao-Shiun Chang, National Changhua University of Education, Taiwan</p> <p>Fang-Pin Lai and Kou-Yi Lee, National Chin-Yi University of Technology, Taiwan</p>
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## Conference Committee

### Organizer:

Faculty of Business, University of Wollongong in Dubai, UAE.

### Conference Chair:

Kathy Ning Shen, Associate Professor, Faculty of Business, University of Wollongong in Dubai, UAE

### Program Chair:

Jim Janson, Qatar Computing Research Institute, HBKU, Doha, Qatar

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Qiang Ye, Harbin Institute of Technology, China

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Robert Luo, University of New Mexico, USA

Sim Kim Lau, University of Wollongong, Australia

SiriluckRotchanakitumnuai, Thammasat University, Thailand

Soly Mathew Biju, University of Wollongong in Dubai, UAE

Timon C. Du, Chinese University of Hong Kong, China

Waiman Cheung, Chinese University of Hong Kong, China

Wenshin Chen, Newcastle Business School, UK

Yan Li, ESSEC Business School Asia Pacific

Zhang Xi, Tianjing University, China

## Venue and Accommodation Information

The conference will be held from December 4-8 at Novotel Dubai, Al Barsha, which is a 4-star hotel located in the city Centre with convenient access to Dubai's major business hubs and leisure attractions.

From the airport, participants can take metro to the Sharaf DG Metro station, which is 5 minutes on foot away from the hotel, or taxi to the hotel.

Google Maps Location: <https://goo.gl/maps/zEcLr7RvPJQ2>

Hotel Website: <http://www.novotel.com/en/hotel-6535-novotel-dubai-al-barsha/index.shtml>

Booking form for Hotel Reservation:

<http://iceb2017.johogo.com/res/SUNLIGHT%20GROUP%2003-07DEC%20BOOKING%20RESERVATION%20FORM.DOCX>

On Dec. 4, a reception desk will be available (2pm-7pm) at the hotel for on-spot registration and collecting conference materials.

## How to get around Dubai

1. **Public Transport:** The public transport system in Dubai is very well connected and affordable. One may either purchase an individual journey ticket or a 'Nol Card' which is a reusable smart card that enables you to pay for the use of various RTA transport modes in Dubai with a single card. You can use your Nol Card to travel on Dubai's Metro, Buses, Water Buses, Dubai Tram as well as pay for RTA's Paid Parking if you decide to rent a car.

The three relevant types of Nol Cards available are:

- Silver Card - **Price: AED 25 (includes AED 19 e-purse value).**
- **Gold Card** - Price: AED 25 (includes AED 19 e-purse value). Provides access to the Gold Class cabin in the Dubai Metro for a premium fare.
- Red ticket – A single use paper ticket for individual trips.

All the above can be purchased from Metro station ticket counters.

Passengers can use the 'S'hail Journey Planner' app available on the App Store and Google Play Store to seamlessly plan their journey around Dubai.

2. **RTA Taxis:** RTA Taxis are available in abundance in and around the city. If you'd like to book a taxi for a specific time at your hotel or residence, dial **04-2080808** and follow the on-call instructions to book your taxi.