2019 IEDRC JAPAN CONFERENCES ABSTRACT

(IC4E 2019)

2019 4th International Conference on Marketing, Business and Trade
(ICMBT 2019)

Waseda University, Japan
January 10-13, 2019

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Welcome Remarks

On behalf of IEDRC, we welcome you to Waseda University to attend 2019 10th International Conference on E-Education, E-Business, E-Management and E-Learning (IC4E 2019) and 2019 4th International Conference on Marketing, Business and Trade (ICMBT 2019). We’re confident that over the three days you’ll get theoretical grounding, practical knowledge, and personal contacts that will help you build long-term, profitable and sustainable communication among researchers and practitioners working in a wide variety of scientific areas with a common interest in E-Education, E-Business, E-Management and E-Learning, Marketing, Business and Trade.

The conferences received submissions from more than 25 different countries and regions, which were reviewed by international experts, and about 120 papers have been selected for presentation and publication.

We hope that your work and that of your institution or company will be enhanced both by what you learn and by those with whom you connect over the next 4 days. Our field is enriched by the dialogue among colleagues from around the world which occurs during presentation sessions as well as informal conversations. We hope this is a memorable, valuable, and enjoyable experience!

On behalf of conference chair and all the conference committee, we would like to thank all the authors as well as the Program Committee members and reviewers. Their high competence, their enthusiasm, their time and expertise knowledge, enabled us to prepare the high-quality final program and helped to make the conference a successful event. We hope that all participants and other interested readers benefit scientifically from the proceedings and also find it stimulating in this process. Finally, we would like to wish you success in your technical presentations and social networking.

Once again, thanks for coming to this conference. We are delegate to higher and better international conference experiences. We will sincerely listen to any suggestion and comment; we are looking forward to meeting you next time.

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IEDRC.org
Conference Venue

Faculty of Science and Engineering
Waseda University (Nishi-Waseda Campus)
Instructions for On-site Registration
1) Please print your registration form before you come to the conference.
2) You can also register at any time during the conference.
3) Certificate of Participation can be collected at the registration counter.
4) Your paper ID will be required for the registration.
5) The organizer won't provide accommodation, and we suggest you make an early reservation.

Instructions for Oral Presentations
Devices Provided by the Conference Organizer:
- Laptops (with MS-Office & Adobe Reader)
- Projectors & Screens
- Laser Sticks

Materials Provided by the Presenters:
- Power Point or PDF Files (Files should be copied to the conference laptop at the beginning of each session)

Duration of each Presentation (Tentatively):
- Regular Oral Presentation: 15 Minutes of Presentation, including Q&A
- Keynote Speech: 40 Minutes of Presentation, including Q&A

Instructions for Poster Presentation
Materials Provided by the Conference Organizer:
- The place to put poster

Materials Provided by the Presenters:
- Home-made Posters
- Maximum poster size is A1
- Load Capacity: Holds up to 0.5 kg

Best Presentation Award
One Best Oral Presentation will be selected from each presentation session, and the Certificate for Best Oral Presentation will be awarded at the Banquet of Jan. 11, 2019. For the presentation on Jan.12 will be awarded at the end of each session.

Dress Code
Please wear formal clothes or national representative clothing.

Important Note:
The time slots assigned in the schedule are only tentative. Presenters are recommended to stay for the whole session in case of any absence.
Introductions for Publications

All accepted papers for the Macau conferences will be published in the proceedings and journal below.


Accepted papers will be published in the International Conference Proceedings Series by ACM, which will be archived in the ACM Digital Library, and sent to be indexed by EI Compendex. The proceedings volume will also be submitted for potential indexing to SCOPUS and Thomson Reuters Conference Proceedings Citation Index (ISI Web of Science). ISBN: 978-1-4503-6602-1

2019 4th International Conference on Marketing, Business and Trade (ICMBT 2019)

International Journal of Trade, Economics and Finance (IJTEF)
ISSN: 2010-023X
Frequency: Bimonthly
DOI: 10.18178/IJTEF
Abstracting/Indexing: ProQuest, Crossref, Electronic Journals Library, EBSCO and doi system

Journal of Economics, Business and Management (JOEBM)
ISSN: 2301-3567
Frequency: Monthly (Since 2015)
DOI: 10.18178/JOEBM
Abstracting/ Indexing: Electronic Journals Library, doi System, Google Scholar, Crossref, and ProQuest.
Introductions for Speakers

Keynote Speaker

Prof. Kuan-Chou Chen
Purdue University Northwest, USA

Kuan-Chou Chen is the Associate Dean for Graduate Program and Research, Thomas M. McDermott Sr. Endowed Chair, Professor in Economic Development, Professor of Management Information Systems. He was the Department Head of Information Systems, Finance, and Business Analytics (2005-2016), as well as Interim Department Head of Department of Graduate Studies in Education (2013-2014) at Purdue University Northwest. He received his Ph.D. from Michigan State University and his MBA from National Cheng-Kung University in Taiwan. He specialized in computer programming, system simulation, project management, decision support systems, data mining, system analysis and design, e-business strategy and application, supply chain management, network design and security, knowledge management, and information economy. Professor Chen has more than 90 scholarly publications, most in peer-reviewed journals. He is an active participant in several professional journals and serves on three paper reviewer boards. Currently he is an Editor-in-Chief of International Journal of e-Education, e-Business, e-Management and e-Learning. His productivity and scholarship have been recognized by his colleagues, being nominated three years in a row for an “Outstanding Scholar Award.” He also the recipient of Teacher of the Year Award (Purdue University Northwest, 2005).

Speech Title: Using Cooperative Learning to Build an Online Learning Community for E-Education

Abstract: E-education is a form of education which is delivered and administered using the Internet. In other words, E-learning is the act of engaging in an educational course in an online setting. E-learning courses can exist in a variety of forms, using a range of technologies. Commonly used in organizations like schools and corporations, E-learning can help learners complete education and training objectives with greater ease and flexibility than they can with traditional classroom-based learning. E-learning courses can use a variety of techniques, including audio and video recordings, presentations, quizzes, surveys, games, discussion groups, and more.

For E-education instructional method, there are numerous possible combinations of factors, but it is unlikely that a single factor alone will significantly affect student success. However, it is obviously to find teaching style will impact the whole learning process. Cooperative learning is the instructional use of small groups so that students work together to maximize their own and each other’s learning. Cooperative learning helps build strengthened individual and team performance which in information Systems class and helps produce more high-quality graduates for tomorrow’s workforce. In cooperative learning, the instructor acts as a facilitator, a tutor, a resource, but is not the source of the course’s content—the students are, through their own research and analysis. The aim: fostering independence and critical thinking. Through this presentation, we will discuss the importance of collaboration in facilitating the development of a learning community and in achieving the desired learning outcomes for the online courses. Furthermore, we will explore the concept of collaboration by suggesting ways to promote it. The skills of interdependence must be developed and taught through a process of cooperative learning. This presentation also will demonstrate the applications of cooperative learning elements to the online education.
Laurence Anthony is Professor of Applied Linguistics at the Faculty of Science and Engineering, Waseda University, Japan. He has a BSc degree (Mathematical Physics) from the University of Manchester, UK, and MA (TESL/TEFL) and PhD (Applied Linguistics) degrees from the University of Birmingham, UK. He is a former Director and the current coordinator of graduate school English in the Center for English Language Education in Science and Engineering (CELESE). His main research interests are in corpus linguistics, educational technology, and English for Specific Purposes (ESP) program design and teaching methodologies. He serves on the editorial boards of various international journals and is a frequent member of the scientific committees of international conferences. He received the National Prize of the Japan Association for English Corpus Studies (JAECS) in 2012 for his work in corpus software tools design.

*Speech Title: Introducing Corpus Tools and Methods into the Technical Writing Classroom through Data-Driven Learning (DDL)*

*Abstract:* The technical writing classroom can be a challenging environment for both instructors and learners. Most technical writing classes are heterogeneous in nature with learners coming from various disciplines and arriving with different needs, language and learning objectives, and preferred ways of study. Instructors might also be from backgrounds that differ from the learners, and thus, they may not always be knowledgeable of the writing conventions of each target discipline. In this environment, a data-driven approach (DDL) to learning through the use of corpus tools and methods can greatly enhance the learning experience. Not only can DDL provide instructors with valuable insights on writing across a wide range of disciplines, it can also empower learners to be able to learn directly from language data. In this plenary talk, I will first introduce the core concepts of DDL and explain some of the technical challenges that have been traditionally associated with the approach. Next, I will introduce several newly developed educational technology solutions that address the most serious of these challenges and help to greatly enhance the learning experience. In particular, I will introduce the AntCorGen automatic discipline-specific corpus generation tool and show how it can be effectively used in the writing classroom. At the end of the presentation, I will discuss how software developers, language program administrators, instructors, and learners can all make important contributions to the development of future corpus tools and methods for the writing classroom.
Dr. Yongsheng Ma joined the faculty of engineering, University of Alberta in 2007, and has been a full professor since 2013. Dr. Ma is a member of ASEE, SME, SPE and an Alberta registered Professional Engineer. He teaches Capstone Design Projects, Engineering Informatics, Engineering Economics and Manufacturing Processes. His main research areas include e-Manufacturing, feature-based design and manufacturing modeling, CADCAM, ERP process modeling and product lifecycle management. Dr. Ma received his B.Eng. from Tsinghua University, Beijing (1986), both M.Sc. (1990) and Ph.D. (1994) from UMIST, UK. In 2000-2007, he was a faculty with Nanyang Technological University, Singapore. Dr. Ma publishes actively in top international journals and conferences, especially in the field of Semantic Modeling for Product and Process Engineering. Dr. Ma had been an associate editor of IEEE Transaction of Automation Science and Engineering (2009-2013). Since 2012, he has served as an editor of Advanced Engineering Informatics. Due to his fruitful collaboration with a Canadian manufacturer, in 2012, he won the prestigious ASTech award sponsored by Alberta Science and Technology Leadership Foundation. Dr. Ma started his career as a polytechnic lecturer in Singapore (1993); and then a senior research fellow and group manager (1996-2000) at Singapore Institute of Manufacturing Technology. Dr. Ma also served in department selection committee (2012), faculty nominating (2009-2011) and evaluation committees (2011). Dr. Ma had been a member of General Faculty Council (GFC) and a university senator from July, 2013 to July, 2016.

**Speech Title: OBE in Engineering Education at a Canadian University**

**Abstract:** Outcome-based education (OBE) has been well an established pedagogy in world-wide education systems including top class universities. However, there have been huge challenges in implementation and evaluation due to the complexity of measures, analytics involved, and processes. This keynote presentation introduces a successful implementation case in a Canadian university for typical and core engineering course. The contents covers the structure of graduate attributes, strategies of syllabus design, quantitative evaluation of student works, and alignment to Canadian Engineering Accreditation Board (CEAB) requirements. Site evaluation process is also introduced. Based on Professor Ma’s rich experience, detailed mechanisms to support group activities, engineering project management, knowledge application and team skill development, and the association matrix to graduate attributes are presented with many cases. Ideally, this presentation will help colleagues in engineering education institutions to plan, implement and evaluate their OBE systems as well as strategies. Used tools and effective methods are also shared and discussed.
Prof. Naoyuki Ishimura was born in Tokushima, Japan in 1964. He obtained his bachelor's degree of Physics in 1986 and master's degree of Mathematics in 1989 both at University of Tokyo, Japan. He obtained his PhD from University of Tokyo in 1993 with the title “Analytic properties of mean curvature flows.” He was Research Associate of Mathematics at University of Tokyo from 1989 to 1996. He promoted to Associate Professor of Mathematical Sciences at Hitotsubashi University, Japan from 1996 and became full Professor from 2005. His interest gradually involves Mathematical Finance and he was a director of CFEE (Center for Financial Engineering Education) at Graduate School of Economics, Hitotsubashi University from 2011 to 2015. He had moved to Chuo University since 2015 and has been a representative of the research team of “Study on quantitative risk management” of the Institute of Business Research, Chuo University from 2017. Prof. Ishimura is a member of JSIAM (Japan Society for Industrial and Applied Mathematics) and a representative of Mathematical Finance study group. His area of research includes the quantitative risk management, the mathematical finance, the applied analysis, and the theory of nonlinear partial differential equations.

**Speech Title: Time Evolution of Copulas and Its Applications**

**Abstract:** The relation between each risk factors is an important subject for management. A typical assumption of the independence does not lead to a true estimate of potential risk. Copulas, in this respect, are known to provide a flexible tool for analyzing nonlinear relations among random variables. However, the usual definition of copulas does not involve the time variable, although real world events proceed with the time. In this presentation, we review on our recent studies on the time evolution of copulas and its applications. Compared to the dynamic copulas, copula itself varies with the time according to a diffusion equation, in our evolution of copulas. Here we apply our evolution of copulas to the analysis of dependence relation model between exchange rates and focus ourselves on rapidly changing events such that their directions of change are almost stable. The results are that the discrete evolution of copulas approximate fairly well the smoothed transition of empirical copulas from the viewpoint of Kendall’s tau.
Carin Chuang is a Professor of Management Information Systems in the College of Business at Purdue University Northwest. Carin holds a Ph.D. in Computer Information Systems from Purdue University and two Master degrees from Michigan State University with an emphasis on hospitality information systems and urban studies. Carin previously taught ten years in the Computer and Information Technology Department at Purdue University Northwest --- Westville campus and was awarded University wide 2014-2015 Outstanding Teacher Award. Carin teaches undergraduate and graduate courses in Systems Analysis and Design, Project Management, E-Business Strategy, Principles of Information Systems, Database Management Analysis and Design, Advanced Spreadsheet Applications, and Internet Programming. Dr. Chuang has more than 50 scholarly publications. Dr. Chuang’s research interests focus on enterprise resource planning (ERP) implementation and evaluation, system dynamics and simulation, business information system analysis, project management, e-business strategy, and experiential learning. Dr. Chuang was awarded four Scholarship of Engagement (SOE) Grants from the Indiana Campus Compact to design service-learning courses and community engagement projects. Prior to joining academia, Dr. Chuang had 13 years industry experience and worked in well-known Fortune 500 companies including EDS (Electronic Data Systems), Caterpillar Inc. and Perkins+Will Global.

**Speech Title: Exploring Education in Service-Learning from Faculty Motivation to Course Re-Design**

**Abstract:** Service-learning is to promote real-world relevance through the application of classroom knowledge to problems in the business community. Service-learning can enhance students’ subject matter learning, understanding and hands-on experiences. Using service-learning as the teaching strategy provides an innovative pedagogy approach to realize higher education’s civic responsibilities. Despite the known facts to its benefits, service-learning is not thoroughly integrated into higher education curriculum in all disciplines. Lack of integration is often considered the results of faculty’s extra work in course re-design and minimal institutional commitment to service-learning, including scarce administrative support, faculty participation, and funding, etc.…This talk will present the service-learning course design and discuss the faculty’s motivation and satisfaction from integrating service-learning into their teaching. This presentation is helpful to faculty in service-learning course re-design. It is also useful to identify areas and provide recommendations for faculty members, institutions, research funding sponsors, the field of service-learning and higher education administrators to motivate and encourage more faculty integrating service-learning into their teaching with needed supports.
Donghui Lin has been an associate professor in the Department of Social Informatics, at the Graduate School of Informatics, Kyoto University since 2018. Lin holds a Ph.D. in Informatics from Kyoto University and a master's degree from Shanghai Jiao Tong University. Prior to joining Kyoto University in 2012, he was a researcher at National Institute of Information and Communications Technology in 2008-2011. He has been working on service-oriented computing and conducting the research and development of language service infrastructures for intercultural collaboration for ten years. He served as a program co-chair of the interdisciplinary International Conference on Culture and Computing 2013-2017, a co-organizer of International Workshop on Worldwide Language Service Infrastructure 2013-2016, and a program committee member of major international conferences in the area of service-oriented computing and language resources. He was a recipient of the 2012 Achievement Award of the Institute of Electronics, Information and Communication Engineers.

**Speech Title:** Multi-Language Service Design: Enabling Technologies and Applications

**Abstract:** Globalization increasingly demands multi-language communication and intercultural collaboration on the Internet, as well as in local communities. To support the design of multi-language services and collaboration tools, we have established the Language Grid, which is a service infrastructure that allows users to create Web-based language services from existing language resources and combine them to adapt to various application domains. This talk explains the enabling technologies and applications for multi-language service design based on our more than ten years of experiences in developing and operating the Language Grid. We first introduce the design concept, service-oriented architecture and institutional design of the Language Grid. Then we explain how we utilize various technologies in the areas of services computing, artificial intelligence and human-computer interaction for designing multi-language services, including the translation services and the communication services. Finally, we demonstrate several typical applications of multi-language service design including our activity called YMC-Viet: a youth mediated communication project in Vietnam, where Japanese agricultural experts transfer knowledge to Vietnamese farmers in high illiteracy regions. By integrating various language services, we realized a communication channel between experts and farmers via children to bridge the significant communication gaps including language, knowledge, culture, and distance.
Conference Agenda

Jan. 10, 2019
(Note: Jan. 10 is only for onsite Registration, but on Jan. 11 and Jan 12, the registration is also open outside the conference room)

<table>
<thead>
<tr>
<th>Time</th>
<th>Venue Description</th>
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<tbody>
<tr>
<td>10:00-17:00</td>
<td>Takeuchi Memorial Hall (Room in the first floor of the North building #55)</td>
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<tr>
<td></td>
<td>Registration &amp; Conference Materials Collection</td>
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</tbody>
</table>

Venue: Takeuchi Memorial Hall  
(Room in the first floor of the North building #55)

Jan. 10, 2019  IC4E Registration desk  
Takeuchi Memorial Hall  
Room in the first floor of the North building #55.

Venue: Conference room no. 63-2-04  
In the second floor of the building #63

Jan. 11-12, 2019  IC4E Registration desk  
Conference room no. 63-2-04  
in the second floor of the building #63.
Jan. 11, 2019  
Venue: Conference room 63-2-3  
63rd Building (2F)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker</th>
<th>Topic</th>
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<tbody>
<tr>
<td>09:00</td>
<td>Opening Remark</td>
<td>Prof. Reiko Hishiyama, Waseda University, Japan</td>
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<tr>
<td>09:10</td>
<td>Keynote Speech 1</td>
<td>Prof. Kuan-Chou Chen, Purdue University Northwest, USA</td>
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<td></td>
<td>Speech Title: Using Cooperative Learning to Build an Online Learning Community for E-Education</td>
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<td>09:50</td>
<td>Coffee Break &amp; Group Photo</td>
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<td>10:10</td>
<td>Keynote Speech 2</td>
<td>Prof. Laurence Anthony, Waseda University, Japan</td>
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<td></td>
<td>Speech Title: Introducing Corpus Tools and Methods into the Technical Writing Classroom through Data-Driven Learning (DDL)</td>
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<td>10:50</td>
<td>Keynote Speech 3</td>
<td>Prof. Yongsheng Ma, University of Alberta, Canada</td>
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<td>Speech Title: OBE in Engineering Education at a Canadian University</td>
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<td>11:30</td>
<td>Keynote Speech 4</td>
<td>Prof. Naoyuki Ishimura, Chuo University, Japan</td>
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<td></td>
<td>Speech Title: Time Evolution Of Copulas and Its Applications</td>
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<tr>
<td>12:10</td>
<td>Lunch</td>
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<td></td>
<td>Lunch at University Cafeteria</td>
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<td>13:30</td>
<td>Parallel Oral Sessions</td>
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<td>Session 1</td>
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<td></td>
<td>Topic: Business Statistics and Business Management</td>
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<td>Room: Conference room 55-1-1</td>
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<tr>
<td>15:00</td>
<td>Coffee Break</td>
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<tr>
<td>15:30</td>
<td>Parallel Oral Sessions</td>
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<td>Session 2</td>
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<td></td>
<td>Topic: Economics and Marketing Management</td>
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<td>Room: Conference room 62</td>
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<td>Session 3</td>
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<td></td>
<td>Topic: E-Education and Digital Learning</td>
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<td>Room: Conference room 63-2-4</td>
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<td>17:30</td>
<td>Session 4</td>
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<td>Topic: Educational Statistics</td>
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<td>Room: Conference room 55-1-1</td>
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</table>
Session 5
Topic: Computer Aided Education and Computer Education
Room: Conference room 62

Session 6
Topic: E-Learning Assessment
Room: Conference room 63-2-4

18:00-20:30  Bunquet
Bunquet at Rihga Royal Hotel
Note: There will be a culture show during the dinner time

Jan. 12, 2019
Venue: Conference room 63-2-4
63rd Building (2F)

Prof. Carin Chuang
Purdue University Northwest, USA
Speech Title: Exploring Education in Service-Learning From Faculty Motivation to Course Re-Design

Assoc. Prof. Donghui Lin
Kyoto University, Japan
Speech Title: Multi-Language Service Design: Enabling Technologies and Applications

10:20-10:30  Coffee Break & Group Photo

Session 7
Topic: Game-Based Teaching and Evaluation
Room: Conference room 55-1-1

Session 8
Topic: Innovative Pedagogies and Educational Management
Room: Conference room 55-1-2

Session 9
Topic: Educational Information Technology Development and Assessment
Room: Conference room 62

Session 10
Topic: Information Technology and Its Application
Conference room 63-2-4

12:15-13:30  Lunch
Lunch at University Cafeteria

Session 11
Topic: E-Technology Application and E-Management
Room: Conference room 55-1-1

Session 12
Topic: E-Business and Management
Room: Conference room 55-1-2

Session 13
Topic: Digital Economy and Econometrics
Room: Conference room 62
### Authors’ Presentations Review

#### Session 1
**Topic:** Business Statistics and Business Management  
**Time:** Jan. 11, 2019  13:30-15:30  
**Room:** Conference room 55-1-1  
**Session Chair:** Prof. Yushan ZHAO, University of Wisconsin, USA  
Assoc. Prof. Chuenjit Kasetsari CHANGCHENKIT, University of Thailand  
*JA1016-A, JA2109, JA3011-A, JA0019, 1018-A, JA0006-A, JA1011, JA1014*

#### Session 2
**Topic:** Economics and Marketing Management  
**Time:** Jan. 11, 2019  13:30-15:30  
**Room:** Conference room 62  
**Session Chair:** Prof. Donald T. CHANG, Metropolitan State University of Denver, USA  
Prof. Su-Jane CHEN, Metropolitan State University of Denver, USA  
*JA1005-A, JA0005, JA0026, JA0008, JA0025-A, JA0007, JA2014, JA0015-A*

#### Session 3
**Topic:** E-Education and Digital Learning  
**Time:** Jan. 11, 2019  13:30-15:15  
**Room:** Conference room 63-2-4  
**Session Chair:** Prof. Yeong-Tae SONG, Towson University, USA  
*JA2045, JA2126, JA2112, JA2075-A, JA2080, JA2013, JA2046*

#### Session 4
**Topic:** Educational Statistics  
**Time:** Jan. 11, 2019  15:30-18:00  
**Room:** Conference room 55-1-1  
**Session Chair:** Assoc. Prof. Yu-Chen Hsiao, Chihlee University of Technology, Taiwan  

#### Session 5
**Topic:** Computer Aided Education and Computer Education  
**Time:** Jan. 11, 2019  15:30-18:00  
**Room:** Conference room 62  
**Session Chair:** Prof. Laurence ANTHONY, Waseda University, Japan  

#### Session 6
**Topic:** E-Learning Assessment  
**Time:** Jan. 11, 2019  15:30-17:45  
**Room:** Conference room 63-2-4  
**Session Chair:** Dr. Terry INGLESE, University of Applied Sciences and Arts Northwestern Switzerland, Switzerland  
*JA3012, JA2024, JA2033, JA2074, JA2061, JA2063-A, JA2065, JA2038, JA2137*
<table>
<thead>
<tr>
<th>Session 7</th>
<th>Topic: Game-Based Teaching and Evaluation</th>
<th>Time: Jan. 12, 2019 10:30-12:15</th>
<th>Room: Conference room 55-1-1</th>
<th>Session Chair: Prof. Carin CHUANG, Purdue University Northwest, USA</th>
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<tbody>
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<td>JA2005, JA2085, JA2096, JA2059, JA2083, JA2105, JA2092</td>
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<tr>
<th>Session 8</th>
<th>Topic: Innovative Pedagogies and Educational Management</th>
<th>Time: Jan. 12, 2019 10:30-12:15</th>
<th>Room: Conference room 55-1-2</th>
<th>Session Chair: Prof. Kuan-Chou CHEN, Purdue University Northwest, USA</th>
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<td>JA2102, JA2127-A, JA2149, JA2097, JA2152, JA2110, JA2088</td>
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<table>
<thead>
<tr>
<th>Session 9</th>
<th>Topic: Educational Information Technology Development and Assessment</th>
<th>Time: Jan. 12, 2019 10:30-12:15</th>
<th>Room: Conference room 62</th>
<th>Session Chair: Dr. Peter HOLOWKA, University of Calgary, Canada</th>
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<td>JA2079-A, JA2093, JA2130, JA2122, JA2134, JA2156, JA2140</td>
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<tr>
<th>Session 10</th>
<th>Topic: Information Technology and Its Application</th>
<th>Time: Jan. 12, 2019 10:30-12:15</th>
<th>Room: Conference room 63-2-4</th>
<th>Session Chair: Prof. Yongsheng MA, University of Alberta, Canada</th>
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<td>JA2020, JA2106, JA2125, JA2035, JA2157, JA2087, JA2049-A</td>
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<tr>
<th>Session 11</th>
<th>Topic: E-Technology Application and E-Management</th>
<th>Time: Jan. 12, 2019 13:30-15:30</th>
<th>Room: Conference room 55-1-1</th>
<th>Session Chair: Dr. CHAN Chiu Fung Maria Goretti, Hong Kong Shue Yan University, Hong Kong</th>
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<th>Session 12</th>
<th>Topic: E-Business and Management</th>
<th>Time: Jan. 12, 2019 13:30-15:30</th>
<th>Room: Conference room 55-1-2</th>
<th>Session Chair: Assoc. Prof. Donghui LIN, Kyoto University, Japan</th>
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<th>Session 13</th>
<th>Topic: Digital Economy and Econometrics</th>
<th>Time: Jan. 12, 2019 13:30-15:15</th>
<th>Room: Conference room 62</th>
<th>Session Chair: Prof. Wei-Bin ZHANG, Ritsumeikan Asia Pacific University, Japan</th>
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<td>JA1021, JA2051, JA2159, JA3008, JA3009, JA0009, JA3004</td>
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## Authors’ Presentations (January 11, 2019)

### Session 1
**Topic:** Business Statistics and Business Management  
**Time:** Jan. 11, 2019  13:30-15:30  
**Room:** Conference room 55-1-1  
**Session Chair:** Prof. Yushan Zhao  
University of Wisconsin, Whitewater, USA  
**Session Chair:** Assoc. Prof. Chuenjit Changchenkit  
Kasetsart University, Thailand

*The time slots assigned here are only tentative. Presenters are recommended to stay for the whole session in case of any absence.*  
**After the session, there will be a group photo for all presenters in this session.**

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<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Presenter/Institution</th>
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</table>
| 13:30  | Opening Speech  
JA1016-A  
13:30-13:45 | An Exploration of Open Innovation for Green Product Development  
Yushan Zhao  
**Presenter:** Yushan Zhao, University of Wisconsin, USA |
| 13:45  | JA2109  
13:45-14:00 | Big Data for Loyalty Program Management in Hypermarket  
Kuan-Yin Lee and Yin-Chiech Hsu  
**Presenter:** Kuan-Yin, Lee, Chaoyang University of Technology, Taiwan |

**Abstract:** New product development faces pressures from competitive, technical, legal, social, and environmental challenges. In particular, environmental considerations have had a great impact on firm product strategies. Consumers become more environmentally conscious and consider the environment when making purchasing decisions. Firms are forced to invest heavily on R&D to develop new products and new processes to improve efficiency and reduce environmental impact. To stay competitive, firms are required to deal with different technological and environmental problems that entail different kinds of knowledge and expertise. Scholars are exploring new innovation management styles that systematically integrate customers, suppliers, and research institutes to improve innovation management process. There have been calls to integrate open innovation and sustainability to enhance firm competitiveness. Open innovation has attracted increasingly attention in both academic and business world. It is a new paradigm that provides new solutions to product innovation. Many studies have been conducted to examine open innovation areas such as open source innovation, customer and supplier integration, crowdsourcing for new product ideas, social media based innovation, networking, etc. However, research on the application of open innovation in green product development is lacking. This study is to fill this gap and propose a framework to integrate research on open innovation, new product development, and sustainability. The project will review related literature, interview company managers on the most important issues related to the application of open innovation in green product management, and provide a discussion of how to improve the success of green product development through open innovation.
contingency relationships, especially among members and nonmembers to manage retailer-both customer relationship better.

The Roles of Hedonic and Utilitarian Values on Consumer Repurchase Intention in e-commerce: Moderating Roles of Perceived Risk and Trust, Evidence from Mongolia
Urandelger Gantulga and Sampil Burmaa
**Presenter:** Gantulga Urandelger, National University of Mongolia, Mongolia

**Abstract:** Consumer repurchase intention is important factor for the success of any organization. The purpose of this study is to develop the impact of shopping values on repeat purchase intention by focusing on Facebook online shoppers in Mongolia by analyzing the relationship of constructs in the conceptual model. Hedonic and utilitarian shopping values are proposed as formative second-order that have been identified in prior research. To achieve research objectives, survey method is employed. Findings of this research reveal that both hedonic and utilitarian values of shopping value are very important in predicting repurchase intention. We sent 400 questionnaires to the experienced online shoppers then received 380 valid responses. The research was conducted in Mongolia. Result indicated that the moderating effects of perceived risk and vendor trust on the relationship between shopping value and repurchase intention. Implication for theory and future research are provided.

Determinants of CSR and EICC Promote Creating Shared Value: A Case Study of Solen Company
Yao-Chin Lin, Ching-Chuan Yeh, and Wei-Hung Chen
**Presenter:** Ching-Chuan Yeh, Yuan Ze University, Taiwan

**Abstract:** Corporate social responsibility is an issue that companies in the world have paid attention in recent years. The main purpose is to hope that enterprises can make good use of the power to give back to the society. The purpose of the study was to explore the determinants of Solen Company implementation of social corporate responsibility and electronic industry code of conduct policies, and to explore how it evolved into creating shared value. This study used interviews and secondary data to collect research data. The study found that Solen Company introduction of electronic industry code of conduct audit results and corporate social responsibility reports were in compliance with environmental protection, social responsibility, employee benefits and giving back to the local township standard. In addition, from the interview data to prove that the company changed and promoted from CSR to CSV, it also proposed interest to stakeholders, company's major issues and management strategies. Finally, the theoretical and practical implications are discussed, in the future research recommendations are proposed.

Consumer Response to the Hedonic and Utilitarian Shopping Product Price Increase and Product Downsizing in the Mongolian Market
Burmaa Sampil and Urandelger Gantulga
**Presenter:** Burmaa Sampil, National University of Mongolia, Mongolia

**Abstract:** Price elasticity is widely used measure of consumer’s purchase intention and one of the significant predictor in consumer purchasing decision. Some people prefer to buy products based on price but others remain loyal whenever the price changes/product downsizing. Given this, it is difficult for companies to increase shopping product prices. The study investigates how consumers react to hedonic and utilitarian shopping product price increases framed in an overt vs covert way (total price increase vs product downsizing). These objectives were pursued through the implementation of quantitative (n=250) undergraduate students. Using these experimental data, covert (vs overt) unit price increase is proved to lead to a more positive consumer response in the hedonic product. In the case of utilitarian product, the effect of covert (vs overt) pricing tactics tends to become less favorable for companies: there is a lower
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| JA0006-A | 14:45-15:00 | Does Gender Structure Affect Firm Productivity? Evidence from China | Meng-Wen Tsou and Chih-Hai Yang  
**Presenter:** Meng-Wen Tsou, National Central University, Taiwan  
**Abstract:** This study examines the impact of gender workforce composition on firm productivity. Using a large sample of Chinese manufacturing firms and conditional on human capital-related controls, we find that firms with a greater share of female workers demonstrate lower productivity. However, our results suggest that increasing the fraction of highly educated female workers significantly improves firm performance. This effect is evident for all private firms regardless of their trade orientation and foreign firms undertaking purely domestic sales. However, the effect does not exist in the case of state-owned and export-oriented foreign enterprises. Compared with medium-sized and large firms, small firms benefit more from gender diversity at high education level. Finally, the share of highly talented female workers indicates better firm performance in more feminized industries. |
| JA1011 | 15:00-15:15 | Mindfulness Endorses Healthcare Perspective by Business Management: An Empirical Study of an Employee | Yu-Hung Tung and Jui-Chien Hsieh  
**Presenter:** Yu-Hung Tung, Yuan Ze University, Taiwan  
**Abstract:** Background: Stressful work has adverse effect on health, and the healthy condition of employee is close related with their work efficiency, healthcare is important part of business management. Mindfulness is positive correlated with well-being, it can work easy in working environment. The purpose of this study is to explore the possibility to using mindfulness to improve employee’s condition in working environment. Research methods: employees do 10 to 15-minute mindfulness during break time and record filling before and after mindfulness, the heart rate data before and after mindfulness were recorded via wearable device. Series data is analysis using quantitative statistical and qualitative research methods. Results: comparing the heart rate before mindfulness, the heart rate significantly decreased after mindfulness, the heart rate before and after mindfulness is related. The advantages of mindfulness according the series records: feel comfortable after practice, improve headaches, improve mood, reduce fatigue, and reduce stress. Conclusions: brief mindfulness helps heart rate decrease and related well-being. Mindfulness helps reduce stress. Finally, brief mindfulness can be easily promoted in working environment, individual heart rate can be an indicator for stress monitor, wearable device can be promoted for healthcare in business management. |
| JA1014 | 15:15-15:30 | Corporate Brand Personality and Personal Branding Procedures in Non-Profit Organization | Chuenjit Changchenkit  
**Presenter:** Chuenjit Changchenkit, Kasetsart University, Thailand  
**Abstract:** Personal Branding plays an important role in Corporate Branding. The organization in this research is a non-profit governmental based organization, providing database to other government agencies and public. Qualitative method was employed in this research by focus group and in-depth interview with personnel in the organization. The objectives were to construct the personal branding procedures from prior survey result of corporate brand personality and corporate personality traits and suggest tools for the organization’s implementation. The result showed that personal branding procedures were set into four steps. Firstly, personnel self-assessment form design to let people evaluate their own strengths weakness opportunity and threats. Second, value-added projects creation to show agile and collaborative working style. Third, personality grooming to bring people image from personality |
Trends of sincerity, excitement, and ruggedness. Finally, projects evaluation by Net Promoter Score method to measure the projects referral by stakeholders. It was recommended that internal marketing strategy should be implemented to promote people’s inner trust and pride in themselves and organization.
Task Relationships, Market Orientation and Service Quality
Donald T. Chang

**Abstract:** Limited empirical work has been done to examine the connections between management-subordinate task relationships in the marketing context. Although the effect of market orientation on business performance has been widely reported in the literature, not much has been shown on how working relationship is related to market orientation and important performance measures, such as service quality. The present study investigates the impact of management-subordinate task relationship on market orientation, and service quality. Their effects on business performance are scrutinized and important managerial implications as well as future research directions are provided.

Marketing concept has been the foundation of modern marketing theories and practices. The significance of customer and market orientation, i.e., the implementation of the marketing concept, has been closely examined in the marketing and management literature. Theoretical frameworks and consequences of market orientation have been developed and empirically tested (Kohli and Jaworski, 1990; Narver and Slater, 1990). Some recent empirical work has focused on how to assess the effect of market orientation on business performance via various mediating and situational variables (e.g., Chang and Chen, 1998; Han, Kim, and Srivastava, 1998; Slater and Narver, 1994). An intriguing factor that helps shape the formation of a market oriented culture is the way the management and the subordinates maintain and nurture their working relationships. Such influence can have fundamental impact on the behavior of the subordinate and the subsequent management-subordinate relationship. Specifically, the following issues are examined:

1. How does management-subordinate task relationship affect market orientation, an important precedent for business success?
2. How does management-subordinate task relationship affect service quality, an important performance measure?

Distributed Management in Service Setting: An Exploration of the Feasibility of Coordinating Three Different Orientations in a Store
Atsushi Inuzuka

**Abstract:** The aim of this study was to explore the feasibility of distributed management of service functions in a store setting, where distributed management means different salespeople serving customers from different perspectives rather than one salesperson providing all service functions. Analysis using three orientations (customer, selling, and learning orientation) as substitutes for service functions revealed that distributed management is feasible only when followers of the sales team in a store exhibit strong initiating structure leadership behavior.

Determinants of Micro-Enterprise Cluster Innovation: Analysis of Member Identification and Satisfaction of Leadership
Yao-Chin Lin, Wei-Hung Chen, Wei Chun Liu, Ching-Feng Lin

**Abstract:** This research focuses on cluster, and explores the determinants of Micro-Enterprise Cluster Innovation through interviews to explore member identification and satisfaction of leadership. The research method used interviews to collect views of six members on the diffusion of e-commerce. This research found that: 1. Relationship between cluster leader's satisfactions is high. 2. Members believe that the importance of leaders in cluster innovation is higher than their importance. 3. The key factors for innovation success are leader and members,
leader, consensus, self-capability, cooperation. Finally, this research proposes theoretical, practical implications and recommendations for future research.

| JA0008 | Re-Value of Municipal Waste – Strategic Approach  
I.Sztangret, K. Bilińska-Reformat  
**Presenter:** Izabela Sztangret, University of Economics, Poland |
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<td><strong>Abstract:</strong> Municipal waste is a tool for building a pro-social image strategy by creating the conditions of social well-being in a strategic time perspective, especially thanks to the applied processes of the biological-mechanical processing and the closed-circuit economy. But, in the new approach, municipal waste is connected with the notion of “re-use” or re-consumption. It can be stated, that waste value is built in a system of relations between the market entities, the secondary market, business entities, and the involvement of government and non-profit organizations. Therefore, the aim of the article is to demonstrate the value of municipal waste, built through involvement of many entities and technologies. Especially, the strategies of building re-value by trade, on domestic and global scale is the main area of interest of the authors. In the article, conceptual and qualitative research methods of empirical research (case study), mainly were used. The results of the research show that the effective waste management and the subject of research - municipal waste has a strategic value and it is certain a tool of implementation of the concept of social marketing. The research on the issues of strategic aspects of municipal waste in re-value perspective opens up a wide field of possibilities, that have not been sufficiently used, especially in the relations of primary and secondary market entities, firms of the sector under review and &quot;re-life/re-use&quot; points/trade.</td>
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| JA0025-A | Investment Chapter of Regional Comprehensive Economic Partnership – The Negotiation and The Implication for Japan  
Akiko Saito  
**Presenter:** Akiko Saito, Keio University, Japan |
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<td><strong>Abstract:</strong> The presentation is on Regional Comprehensive Economic Partnership, RCEP, to see its on-going negotiation and how its investment chapter could be “meaningful” to Japan. RCEP is a regional Economic Partnership Agreement, EPA, among ASEAN 10 countries, Japan, Australia, China, India, New Zealand, and South Korea, that covers almost half of the world population, one third of global trade and a fifth of the global foreign direct investment inflows. RCEP negotiation was launched in 2013, with the objective to achieve a “modern, comprehensive, high-quality, and mutually beneficial economic partnership agreement among the ASEAN Member”, as well as to cover the “four pillars of promotion, protection, facilitation and liberalization” with the investment chapter. Japan has either EPA (investment chapter) or International Investment Agreement with all RCEP participating countries. Japan also has an EPA with ASEAN as a whole, but without investment chapter. Every agreement is individually stand. However, by studying the contents of existing agreements with RCEP negotiating countries and analyzing the “missing” elements, the presenter believes that it is possible to see the important elements to be included in RCEP investment Chapter to make it a “meaningful” agreement for Japan.</td>
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| JA0007 | 14:45-15:00 | Social Media Marketing Experts’ Perceptions Regarding the Capabilities of a Future Artificial Intelligence Software  
Alexandru Capatina, Adrian Micu, Angela-Eliza Micu, Marius Geru and Radu Lixandroiu  
**Presenter:** Alexandru Capatina, University Dunarea de Jos of Galati, Romania  
**Abstract:** The increasing interest in Artificial Intelligence’s impact on Social Media Marketing creates huge opportunities for software providers, whose innovative technologies would be broadly implemented by marketers. This article outlines the results of an exploratory research focused on 100 Social Media Marketing experts (digital agencies’ owners, marketers and freelancers) that assessed the forthcoming AI Media software capabilities, based on social media analytics, reflecting audience, image and sentiment analyses. The goal of this paper is to analyze the ranking of twelve capabilities proposed for the future AI Media software, as they were perceived by the respondents included into the research sample. |
| JA0015-A | 15:15-15:30 | Teaching of Digital Marketing Skills for Engineering Students in Korea via English as a Medium of Instruction  
Alin Kang  
**Presenter:** Alin Kang, LMN Communications Institute, South Korea  
**Abstract:** Students whose English is not their mother tongue are faced with having to take classes in English as Medium of Instruction (EMI) as EMI has become a global phenomenon in higher education institutions. In Korea, engineering students’ communicative competencies have been particularly challenged as they not only struggle with communication skills but also struggle with the English proficiency. The present study examined the effectiveness of teaching digital marketing skills to engineering students. A total of 161 students participated in the study. The variables were: 1) demographic variables, 2) fluency, 3) accuracy, 4) communicative competence, 5) marketing syntax and message and 6) other variables such as completing all course requirements and submitting the assignments by the due dates. The present study examined the effect of instructional intervention on students’ digital marketing skills. Students’ audio and video files containing their digital marketing information were collected prior to the instructional intervention. Students were taught ways to improving fluency, accuracy, communicative competence as well as developing marketing syntax and message. After the instructional intervention, the participants’ audio and video files were collected again to examine the effect of instruction. The results showed that students who followed the instruction and completed all course requirements have improved their marketing skills more than those who did not. Furthermore, students who didn’t improve their marketing skills were students who 1) showed too much confidence about their communication skills; 2) did not follow the instructions; or 3) simply lacked English skills. The implications of the findings are further discussed. |
| JA0007 | 14:45-15:00 | Two-phase Bundling Strategy with Limited Capacity  
Ling Zhou and Yanyi Xu  
**Presenter:** Ling Zhou, East China University of Science and Technology, China  
**Abstract:** Bundling, as an effective marketing model, has been gradually applied in all fields since the 1970s. Although there are many researches on bundling, the two-phase bundling strategy is still rare. This study considers a retailer who has a limited capacity of products sells two types of independent products in two periods, which the retailer can choose to sell products separately (pure components, PC) or bundled (pure bundling, PB) in different period. So, there are four strategies the retailer can choose, i.e., PC-PC, PB-PB, PC-PB, and PB-PC. The research compares them, and the results show that the best bundling strategy depends on the capacity of two products. |
Session 3  
Topic: E-Education and Digital Learning  
Time: Jan. 11, 2019  13:30-15:15  
Room: Conference room 63-2-4  
Session Chair: Prof. Yeong-Tae Song  
Towson University, USA

*The time slots assigned here are only tentative. Presenters are recommended to stay for the whole session in case of any absence.  
**After the session, there will be a group photo for all presenters in this session.

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<td>Opening Speech</td>
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| JA2045 | Enhance Employees’ Competences through Customized Learning  
Majed Almotairi, Mohammed Alyami and Yeong-Tae Song  
**Presenter:** Yeong-Tae Song, Towson University, USA  
**Abstract:** In modern society, competent employees are an important asset for any organization  
to be competitive. Employees can be competent in their jobs when they have required skills  
impended by the organization to which they belong. Providing necessary skill sets to each  
employee can be cumbersome because their background and existing skill sets are different; so,  
any uniform training attempt may be inefficient and costly. So, in order to provide necessary  
skills to each employee effectively, the training must be customized. In our approach, we  
analyze employees’ existing skill sets using their learner profile and determine necessary  
training by comparing organizations’ required skill sets. We utilize European Skills,  
Competences and Occupations classification (ESCO) and Dublin Core to store available  
Massive Open Online Course (MOOC) courses using the concept of learning object and  
learning object repository. We then present required training in terms of a study plan that  
includes a list of MOOC courses. |
| 13:45-14:00 | Investigating Students’ Attitude and Achievement in Organic Chemistry Using Interactive Application  
Karina L. Damo and Maricar S. Prudente  
**Presenter:** Karina L. Damo, Mariano Marcos State University, Philippines  
**Abstract:** The “fourth wave” transformed our society into “mobile society” which focuses on  
cyber-physical systems. It also redirected higher education practices from the traditional  
classroom setting to e-learning system. The purpose of this action research is to investigate  
the impact on the use of an interactive application on students' performance and attitude  
towards chemistry in an Organic Chemistry class. The study was conducted on and confined  
to first-year BS Food Technology students of the Mariano Marcos State University, Ilocos  
Norte, Philippines. The research problem was identified through the experience of the  
researcher supported by the literature. An intervention was carried out with the use of an  
interactive mobile application – Chirality 2, a game-based application designed to teach  
fundamental concepts of organic chemistry. Stereochemistry Concept Inventory (SCI) and  
Attitude toward the Subject Chemistry Inventory (ASCIv2) were utilized in the conduct of pre-  
and post-strategy tests. Students' scores were described using means and standard deviation.  
Paired t-test was used to determine significant differences between the students' pre-test  
and post-test scores, both in their examination performance and attitudes. After the  
intervention, the post-test results revealed a significant improvement in the test scores of students.  
There was also a significant change in the attitude of the students, both on affective and cognitive  
sub-dimensions. The significant difference between the pre-test and post-test suggests that  
interactive mobile application enhances the performance of students and develops students'  
attitude. Results of the Pearson's correlation showed that there was no significant association  
between the attitude towards chemistry and achievement of students. |
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<td>JA2112</td>
<td>Comparing the Efficiency of Innovative Teaching Through Digital Mobile E-learning based on a DEA Meta-Frontier Model</td>
<td>Fu-Hsiang Guo, Li-Hua Li, Chang-Yu Lai, and Yu-Sheng Chu</td>
<td>Li-Hua Li, Chaoyang University of Technology, Taiwan</td>
<td>The goal of this research is to evaluate the effects of innovative teaching on school efficiency via the use of digital mobile e-learning in Taiwan. This study recognized that each school level (elementary, junior, and senior high) has its own frontier productions, which can be readily resolved using the meta-frontier technique. The empirical results of this research indicate the following: (1) importing digital mobile e-learning can genuinely enhance the efficiency of school management; (2) the technology gap ratio (TGR) measures reflect the current production technology of the group, the ratio of the output level of the group boundary, relative to the output level of the common boundary. Hence, this study suggests that elementary schools perform better than senior high schools, while the junior high school performs worst of the three. In summary, TGR values provide an opportunity to identify which technologies are relatively efficient. The study quantitatively supports the importance of not relying on identical frontier production when comparing the efficiency of curricula at different grades of schooling that use different technologies.</td>
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<td>JA2075-A</td>
<td>Comparing the Communicative Language Teaching Approach and the Computer-Assisted Pronunciation Teaching Approach in Improving Students’ Motivation in Learning English Pronunciation</td>
<td>Chan Chiu Fung Maria Goretti</td>
<td>Chan Chiu Fung Maria Goretti, Hong Kong Shue Yan University, Hong Kong</td>
<td>This research investigated university students’ views on the effectiveness of the communicative language teaching approach (CLT) and the computer-assisted pronunciation teaching approach (CAPT) in improving their English pronunciation. Students attended a 12-week pronunciation training course which focused on the pronunciation of consonant clusters in both onset and coda positions, one group using CLT and one group using a pronunciation software called EyeSpeak. After attending the pronunciation training course, students completed a questionnaire which solicited their opinions on whether the course helped them to improve their confidence and motivation in learning pronunciation. Students’ opinions on the teaching approach used were also sought. Data collected from the questionnaire showed that the students using the communicative language teaching approach enjoyed the lessons more than the students using the computer-assisted pronunciation teaching approach and they were more motivated and confident in English pronunciation after they finished the training. The evidence from this study suggests that new technologies in the computer laboratory do not necessarily help improve students’ learning experience and that communicative language teaching approach in which students can interact with their teacher and fellow students enhances their motivation and brings benefits to the students. It is suggested that CAPT could be used to supplement CLT and using the teaching approach the students prefer would enhance students’ motivation and competence and thus benefit them ultimately.</td>
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<td>JA2080</td>
<td>The Role of Self-Regulated Learning in the Workplace Professional English E-Learning Course</td>
<td>Yu-Chen Hsiao, Yi-Tzone Shiao and Yahui Yang</td>
<td>Yu-Chen Hsiao, Chihlee University of Technology, Taiwan</td>
<td>For this study, we recruited 499 students from 5 vocational and technological universities in Taiwan, who attended a workplace professional English E-learning course. We used nine databases and analytical methods such as t test, ANOVA, Scheffe’s Test, and multiple regression to observe the correlation between students’ learning engagement and academic performance after they employed action control strategies of self-regulated learning. We found that, in terms of student engagement, the engineering group significantly</td>
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outperformed the humanities group, females performed better than males, and fourth-year students performed significantly worse than the first-, second- and third-year students. In terms of ranking of course grades in the semester, the average class ranking of the engineering group was higher than that of the humanities group (p < 0.0001), males ranked lower than females (p = 0.0009), and second-year students ranked higher than fourth-year students (p < 0.0001). The results indicated that better student engagement led to better academic performance, supporting that in the E-learning course, the ability of self-regulated learning of the students can promote the students' academic performance, but also that the self-learning attitude of the fourth-year students deserves attention and improvement.

**JA2013**  
15:00-15:15  
**Flipped Classroom Enhances Student’s Metacognitive Awareness**  
Jaypee Limueco and Maricar Prudente  
**Presenter:** Jaypee M. Limueco, De La Salle University-Manila, Philippines

**Abstract:** This study aimed to explore the impact of Flipped Classroom model to the students’ metacognitive awareness. Quasi-experimental designed was utilized. Qualitative method of research was done to determine the impact of the Flipped Classroom model to the eight subcomponents of metacognition. Two heterogeneous Grade 9 classes were the participants of this study. Purposive sampling was used in choosing the participants. One group of 50 students was assigned to the treatment group and the other group of 49 students was assigned as control. Flipped classroom was implemented in the treatment group. On the other hand, the control group was taught using lecture method. During the implementation process, energy and momentum concepts were covered in a total of twelve hours of in-class sessions. Metacognitive Awareness Inventory (MAI) was used to assess the level of metacognitive awareness of the students in both groups before and after then intervention. Data from MAI were analyzed using descriptive and quantitative analysis. Reflective journal was used to gather qualitative data that will support the results of the MAI. Paired t-test was used to determine if there is a significant difference between the different subcomponents of the students before and after the implementation. Results revealed that students in the treatment group showed significant improvement in terms of all 8 subcomponents of metacognition. Analysis of reflective journal logs showed that the students demonstrated metacognitive awareness during instruction. In contrast, no significant increase on the level of students’ metacognitive awareness was evident in the control group. The findings of this study provide a valid reason to say that The Flipped Classroom has improved students’ metacognition.

**JA2046**  
15:15-15:30  
**A Revolutionary Approach in Virtual Learning: User-Centered Kansei Virtual Agent**  
Chandra Reka Ramachandiran, Malissa Maria Mahmud and Nazean Jomhari  
**Presenter:** Chandra Reka Ramachandiran, Asia Pacific University, Malaysia

**Abstract:** In the 21st Century, many young learners spend a lot of time learning via formal and informal electronic classroom such as Virtual Learning Environment. Therefore, many Higher Education Institutions (HEIs) have deployed virtual agents in the Virtual Learning Environments (VLEs) to enhance the learning curve of the young leaners. Past reviews have highlighted that learner’s satisfaction is crucial to develop sustainability of a product and to determine the efficacy of a specific learning tool. Besides this, it was also advocated that the existing Virtual Agent design facts does not cater to the heterogeneous society and is not a globalized design. To address this acute issue, this paper demonstrates the design specifications of Kansei Virtual Agent using the enhanced model identified as the Virtual Agent Design Model (VADM). The dynamic model adapted the Kansei Engineering defined as the user-centric approach that uses the quantitative analysis to identify the design specifications of a Virtual Agent. The 107 respondents are undergraduate students from a Higher Education Institution in Malaysia. The outcome suggests that User-Centered Kansei Virtual Agent contributes to a higher level of satisfaction when the learners interact with the Virtual Agent 2 (VA2) that has high emotional appeal.
### Session 4
**Topic:** Educational Statistics  
**Time:** Jan. 11, 2019  
**15:30-18:00**

**Session Chair:** Assoc. Prof. Yu-Chen Hsiao  
Chihlee University of Technology, Taiwan

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<table>
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<tr>
<th>Time</th>
<th>Title</th>
<th>Presenter</th>
<th>Abstract</th>
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<tr>
<td>JA2018-A</td>
<td>The Correlation between Self-talk and Learning Achievement Motivation of Bachelor’s Degree Students at Pibulsongkram Rajabhat University</td>
<td>Jomkwan Rattanakit: Pibulsongkram Rajabhat University, Thailand</td>
<td>This is a research whose purposes were to 1) study self-talk and emotional states of students and 2) to study the correlation between self-talk and the emotional states and the learning achievement motivation of students. The samples were 148 Bachelor’s Degree students and they were chosen by purposive sampling. The instruments used in this research were the questionnaire on self-talk, the questionnaire of emotional assessment, and the questionnaire on learning achievement motivation. The data were analyzed by mean and bivariate correlation. The results of the first purpose was found that the students tended to have more encouraging self-talk, (= 3.66), than pressured one, (= 1.92). In addition, the students had more positive emotional states, (= 3.79), than negative ones, (= 1.99). The results of the second purpose was found that the correlation between the encouraging and the pressured self-talk and the pressured self-talk was negative at the moderate level statistically significant at 0.001 level. Meanwhile, the correlation between self-talk and the emotional states was statistically significant at 0.001 level. When the correlation between self-talk and the learning achievement motivation was analyzed, it was found that the learning achievement motivation correlated positively with encouraging self-talk while it correlated negatively with pressured self-talk.</td>
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<td>15:30-15:45</td>
<td>Exposure to English Linguistic Environment and Oral Proficiency of First Year College Student in Davao del Norte</td>
<td>Larcyneil Pascual: The University of Mindanao, Philippines</td>
<td>The study evaluated the oral proficiency of students according to their level of exposure to English linguistic environment. The study further aimed to determine the significant relationship between exposure to English linguistic environment and oral proficiency of first year college students in selected Higher Educational Institutions (HEIs) in the province of Davao del Norte. The study employed the descriptive – correlation method in investigating the research problems. Using a two-part questionnaire, this study found out that the level of exposure to English linguistic environment of the first year college students is moderate and their level of oral proficiency in terms of comprehension, fluency, grammar, pronunciation and vocabulary is low. Furthermore, there is no significant relationship between English environment and oral proficiency among first year students, and the students’ exposures in the context of this study do not significantly influence their oral proficiency.</td>
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<td>JA2055</td>
<td>A Development Model Of “Studio Teach For Tech” To Promoting Skills On Information And Communication Technology For Thai Students In The 21st Century</td>
<td>Rathapol Pradubwate and Nutteerat Pheeraphan: Srinakarinwirot University, Thailand</td>
<td>The purposes of this study were (1) to develop “STUDIO TEACH for TECH” model to promoting skills on information and communication technology for 21st century students. (2) to evaluate the performance of “STUDIO TEACH for TECH”. The sample was 139 students of Srinakarinwirot University by using accidental sampling from Activities Participants in a semester. The data was analyzed by using mean and standard deviation.</td>
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<td>JA2057</td>
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<td>JA2026 16:15-16:30</td>
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| **Comparing the Differences of Using Mobile Device for Learning between Filipino Schools and Chinese Schools in the Philippines**

**Wan Jin, Socorro Aguja and Maricar Prudente**

**Presenter:** Wan Jin, De La Salle Araneta University, Philippines

**Abstract:** With the fast development of technology, mobile devices offer tremendous opportunities for students. With this new and exciting era in education, students with different cultural background from different community may have different experiences and perceptions for learning with mobile devices. This study explored the differences of using mobile devices for learning between Filipino schools and Chinese schools in the Philippines. A total of 529 senior high school students from three Filipino schools and three Chinese schools in Metro Manila participated in this study. Results indicated that students from Chinese schools have a comparative advantage in terms of mobile technical infrastructures, while students from Filipino schools were more frequently users of mobile devices for learning activity. Although students from Filipino schools found greater challenges in using mobile devices for learning activity, they were also more optimistic toward the adoption of mobile devices in the formal learning environment compared with their counterparts from Chinese schools. Additionally, students from both schools were highly concerned about issues like personal data protection, cheats and cyber bullying. Findings in this study suggest that students’ social cultural background, together with their previous experience need to be carefully considered in order to successfully adopt mobile devices in the local context.

<table>
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<th>JA2019-A 16:30-16:45</th>
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| **The Outcomes of Long Distance Swimming Training Program towards Crawl Stroke Competency of Physical Education Students in Faculty of Education, PibulsongkramRajabhat University**

**Nuntipak Puangsatit**

**Presenter:** Nuntipak Puangsatit, PibulsongkramRajabhat University, Thailand

**Abstract:** The objectives of this research were to 1) know the outcomes of long distance swimming training program towards crawl stroke competency of physical education students in Faculty of Education, PibulsongkramRajabhat University from two training program towards the ability of long distance swimming of long distance swimming program upon crawl stroke competency, 2) compare the outcomes of the long distance swimming training program which was not in line with the training guidelines of Fédération Internationale de Natation (FINA) and those of the long distance swimming program in line with the FINA. The samples used in this research were 14 physical education students who took a Swimming One course. The data were analyzed by mean, standard deviation (SD), and t-test independent. The findings of this research were as follows. Before the training, the mean and standard deviation of the first group of the samplings on 2,000 meter-crawl stroke swimming program, not based on the FINA guidelines, were 31.32 minutes and 1.19 minutes. The above records were compared with those of the second group of the samplings on 2,000 meter-crawl stroke swimming program, based on the FINA guidelines.
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<tr>
<td>16:45</td>
<td>JA3019-A</td>
<td>Modeling and Confirmatory Factor Analysis of Social Media Usage for Educational Purposes</td>
<td>Shugufta Abrahim, Bilal Ahmed Mir, Hayato Suhara, Fatin Amirah Mohamed and Masahiro Sato</td>
<td>The objective of this study is to design a structural equation model and test confirmatory factor analysis system in order to better explain how students could utilize social networking system (Facebook) for educational purposes. Thus, this paper seeks to examine the attitudes, perceptions and behaviours of Japanese students' towards social-networking sites, and how students from non-English speaking backgrounds (especially Japanese students) at the University of Toyama perceive the use of Facebook for learning English as a foreign language. Our Structural Equation Modelling system-based Facebook model outline the relations among different types of independent, dependent variables and constructs. We tested our model using adequate fitting indices like Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Non-Normed Fit Index/Tucker Lewis index (NNFI/TLI) and Incremental Fit Index (IFI). The results of the proposed model confirmed the hypothesized latent structures and theoretical validity of probed factors. Conclusions drawn from this study might be useful to better understand the use of social network tools in educational contexts.</td>
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<td>17:00</td>
<td>JA2023-A</td>
<td>The Development Guidelines of Professional Learning Community of Teachers by Contemplative Education and Mentoring System of Student Teachers Trained Professional Experiences in Faculty of Education</td>
<td>Thanyaporn Kongkhan</td>
<td>The purposes of this research were to 1) study the guidelines developing professional learning community of teachers among student teachers trained professional experiences in Faculty of Education, Pibulsongkram Rajabhat University, 2) study the performances of the student teachers according to the guidelines. The informants were the 50 student teachers who were chosen by purposive sampling. The instruments used in this research were the interview on the guidelines of professional learning community of teachers among the 50 student teachers and the questionnaire on job performance levels according to the guidelines. The data were analyzed by qualitative analysis and quantitative analysis which used mean and standard deviation. The results were as follows: 1. The results of studying the development guidelines of professional learning community of teachers among the student teachers trained professional experiences in Faculty of Education, Pibulsongkram Rajabhat University were found that it included five guidelines; that is, 1) open-minded and trusting to learn together, 2) having the same goals or objectives, 3) disclosing information, 4) sharing knowledge and experiences, and 5) discussing, concluding, and selecting proper solutions. 2. The results of studying the performances of the student teachers according to the guidelines were found that in general, the level of the job performances was moderate. $X = 3.31$</td>
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<td>17:15</td>
<td>JA2084</td>
<td>Evaluation of Virtual Learning Environment Characteristics in Learning Performance</td>
<td>Chinthake Wijesooriya, Jon Heales and Fiona Rohde</td>
<td>This paper evaluates the role of virtual learning environments on learning performance in two contexts. The research utilizes an online survey to capture the postgraduate students experience in using formal and informal learning systems to achieve the learning performance. We capture and analyze the learning process and behavioral characteristics. The smartPLS application has been used as a tool to analyze the model. The results show that the model is highly reliable and contrasting characteristics of the formal and informal learning systems. The results are useful explaining the significance of the learning process and behavioral characteristics of Virtual Learning Environments in achieving learning performance.</td>
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<td>JA3020-A</td>
<td>Educational use of Social Networking Sites (SNS) in Japan for Language Learning: Students’ Attitudes, Perceptions Towards Facebook</td>
<td>Social networking sites (SNS) have become an integral part of modern society. Among online social networks, Facebook is considered as one of the most popular platforms for online social networking among millions of users including students of all ages. This paper attempts to evaluate whether Japanese students consider Social networking site Facebook as effective online language-learning platform and whether this social learning approach provide students with the opportunity to voluntarily learn English as a second language and gain experiences that help them to better communicate with foreigners using English. A survey was carried out with 88 undergraduates, postgraduate and research students at University of Toyama, Japan to observe learners' perceptions and attitudes towards the usefulness of Facebook for online language learning. Data collected with the use of structured questionnaire from randomly selected students. Most of candidates agreed that Facebook offer great promises to facilitate them learn English and to improve their motivation as well as confidence level in peer- to- peer communication using English. The result of the survey demonstrated that students believed that Facebook could be used as an effective online platform for English learning and related online educational discussions. In conclusion, Facebook may serve as a meaningful and promising teaching tool which can be used not only by English language instructors but also by other educators for fostering quality in online education.</td>
<td>Shugufta Abrahim, Bilal Ahmed Mir, Hayato Suhara and Masahiro Sato</td>
<td>Conference room 62</td>
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<td>JA2119</td>
<td>Augmented Reality in Science Classroom: Perceived Effects in Education, Visualization and Information Processing</td>
<td>Technology in education has evolved over the decades and has provided more opportunities for technologies such as Augmented Reality to find its way into the pedagogy of teachers in science. In this paper, an AR app was used in facilitating a lesson on chemical bonding and simple compounds. The effects of such innovation were studied using observation and various data gathering methods in an action research design. Results show that AR is a tool that enhances visualization of concepts through elements of virtual and real images, allows students to map physical characteristics easily and aids them in developing mental images for further discourse. Results also show that AR does not only improve motivation but triggers more student-student interaction and teacher-student interaction as well. Students learning attitudes towards chemistry improved in terms of their appreciation of the subject, their perception of its relation to real life and of their meaning-making processes. The teacher indicated that AR apps can innovate the classroom and can provide opportunities for implementation as they are easy to use. However, findings also show that teachers may have a hard time looking for free resources of apps that will meet their needs, and that there is challenge in ensuring that misconceptions are avoided from AR apps’ oversimplification of visualization. This study also presents some action plans for further use of AR apps in teaching science.</td>
<td>Rholeo O. Virata and Johan Daryll L. Castro</td>
<td>Conference room 62</td>
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**Session 5**
**Topic:** Computer Aided Education and Computer Education
**Time:** Jan. 11, 2019 15:30-18:00
**Room:** Conference room 62
Session Chair: Prof. Laurence Anthony  
Waseda University, Japan

*The time slots assigned here are only tentative. Presenters are recommended to stay for the whole session in case of any absence.  
**After the session, there will be a group photo for all presenters in this session.

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Presenter: Pedro Filipe Pereira Pinheiro da Cruz  
Abstract: This investigation is aimed at exploring the role of a Computer-Mediated software tool in the success of a Master course in Mozambique. Abundant literature links Computer-Mediated academic environments to engagement/flow, intrinsic motivation, strong internal locus of control, and thus, to success in careers and education. Due to residual success in conventional Master Dissertations in a Mozambican private university, students’ perceptions and motivations were explored. Preliminary results, from a qualitative exploratory focus group, showed decreasing levels of both engagement, intrinsic motivation, locus of control and exploratory behaviour over time. The implementation of a Computer-Mediated simulation software (that uses both Project Management concepts and state of the art review process through oriented tasks, with same classic Thesis’ main purposes) was presented as an alternative to a conventional Master Thesis. Half of the students preferred the proposed alternative tool. Based on relevant literature, a specific scale has been developed and a longitudinal study will be implemented to explore the difference between the two groups concerning students’ perceptions and success level, and thus, highlighting the impact of the implementation of a Computer-Mediated learning tool in a Master course. |
| JA2010 15:45-16:00 | Automatically Generating Exams via Programmable Plug-ins, and Generic XML Exam Support  
Presenter: Ayed A. Salman, Kuwait University, Kuwait  
Abstract: Creating exams for some subjects is an arduous task that needs analyzing large data sets, which is a time-consuming and error prone process. Most learning management and examination systems, however, do not support automatic exam creation features. In addition, they suffer from numerous downsides such as the need for sophisticated infrastructure requirements (e.g., web server, database server). This made it hard for instructors to use without relying on a third party to install and manage the system (e.g., IT department). In this paper, we propose a simple dynamic examination system (SDES) to alleviate many burdens of current examination systems. SDES supports programmable plug-ins to generate exams automatically for specific subjects. We implemented a plug-in for file systems digital forensics to generate exams automatically from live forensic disk images. Moreover, SDES supports generic exams, for any subject, based on XML markup language, which decouples exams from a specific e-learning platform. This allows instructors that use different platforms to share and collaborate on exams. Furthermore, SDES enables instructors to conduct examinations securely on a networked setup without relying on third parties. Unlike current available systems, SDES does not require deep technical knowledge or requirements, and instructors can use it intuitively. To the best of our knowledge, this is the first work to address automatic exam generation that is integrated with computer-based testing and generic markup (XML or any other) support. |
| JA2116 16:00-16:15 | Use of Nonverbal Cues for Interpersonal Management in the SNS Context  
Sodam Kim, Eun-Young Cho and Hee-Woong Kim  
**Presenter:** Sodam Kim, Yonsei University, South Korea  
**Abstract:** Emoticons have become more widely used and created a revenue stream due to the extensive use of social network service (SNS). Emoticons, which are often defined as surrogates of nonverbal cues used in the online context, contribute to maintaining relationships and expressing emotions. SNS users thus actively send emoticons to others and expect to manage their impressions. However, the antecedents and consequences of using emoticons in SNSS have not been well understood or thoroughly investigated in existing literature. To address the research gap, from a dyadic relationship perspective, this study aims to examine the antecedents and consequences of using emoticons in relation to impression management in the SNS context. Drawing on interpersonal impression management theories and motivational theory, we examine what motivates SNS users to send emoticons to others and how their impressions are judged by the emoticon receivers accordingly. To validate our model, we conduct a survey with a sample of 120 emoticon sender-and-receiver matched pairs in KakaoTalk (i.e., a mobile SNS). This study takes an important step in clarifying the nature of emoticon usage in the SNS context. We believe that our theoretical framework offers a solid conceptual basis for further research on SNS emoticon usage and interpersonal impression management. |
| JA2042 16:15-16:30 | Investigating the Influence of Students' Learning-Style Preferences on User Intentions Regarding Illustration Software  
Yu-Hsin Hung and Ray-I Hung  
**Presenter:** Yu-Hsin Hung, National Yunlin University of Science and Technology, Taiwan  
**Abstract:** With repaid development of web techniques, the Internet brings great innovation to the world. Visualization tools have especially attracted attention from researchers because visual representations such as diagrams and charts can easily express data to receivers. Computer assisted visualization systems are presently used in such industries as medicine, service, and finances, so students equipped with fundamental knowledge of illustration software may enhance their core competencies. In addition, learning style refers to an individual’s approach to learning based on preferences, strengths, and weaknesses. This study investigated the influence of learning-style preferences on learners’ intentions to use illustration software. The experiment’s result showed that different learning styles could affect learners’ preferences in illustration software and differences in user satisfaction between “active–reflective” and “global–sequential” learning styles. |
| JA2091 16:30-16:45 | A Study of Digital Literacy of 1st Year Computer Education Students, Faculty of Education, Nakhon Phanom University  
Srisuda Daungtod  
**Presenter:** Srisuda Daungtod, Nakhon Phanom University, Thailand  
**Abstract:** A study of digital literacy of 1st year students in Computer Education, Faculty of Education, Nakhon Phanom University. The main objective is to study the knowledge and skills of digital literacy in 1st year Computer Education students, Faculty of Education, Nakhon Phanom University. In addition, it observes the skills of new enrolled students in the university and surveys the opinion of the students about digital literacy and Information technology by using the concept of IC3 Digital Literacy Certification. The result shows that overall students have moderate knowledge of digital literacy according to IC3 Concept which included Online living, Key applications, and Computing fundamentals. Therefore, students need to be educated more about digital literacy in order to prepare themselves to enter digital society and career pathway with their specific capabilities. |
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<tr>
<td>JA2094</td>
<td>Blended learning Using Mobile APP in Secondary Vocational Instruction: Design and Implementation</td>
<td>Using &quot;Superstar Learning Pass&quot; mobile APP in china, a new mode enhanced blended learning was designed and implemented. The effectiveness of the blended learning in regard to students’ achievement was evaluated in comparison to traditional classroom instruction, attitudes towards the course and the APP satisfaction by questionnaire. Experimental study design was carried out. The sample of the study consisted of 50 secondary vocation school students enrolled in ‘computer science’ course. The control and experimental groups composed of 25 and 25 students respectively, and the experiment lasted 8 weeks. The results show that the blended learning mode has a positive effect on improving the academic performance and attitude of secondary vocational students.</td>
<td>Qingtang Liu, Hairu Yang, Wenjun Zhang, Shen Ba and Yang Wang</td>
<td>Hairu Yang, Central China Normal University, China</td>
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<td>JA2101</td>
<td>Certified Ethical Hacker v.10 Online Self-study Course – a Case Study</td>
<td>CEH v.10 Self-study Course is an online course preparing learners for one of the most prestige cyber security certifications in the world - the Certified Ethical Hacker (CEH) v.10 Certification. Due to a pay wall and the practical rather than theoretical nature, most researchers have limited exposure to this course. For the first time, this paper will analyze the course’s instructional design based on the highest US national standards, giving fair evaluations, and identifying five general directions for improvements. The main contribution is a 30-point check list that can be used to evaluate any other online courses. Methodology involves mapping QualityMatters and iNacol evaluation items into 30 items within five categories of &quot;Meaningful&quot;, &quot;Engaging&quot;, &quot;Measurable&quot;, &quot;Accessibe&quot;, and &quot;Scalable&quot;. This instructional design evaluation strategy is more intuitive to business leaders, and allows the combination of any other standards that are relevant to an organization’s evaluation needs.</td>
<td>Tam Ngoc Nguyen</td>
<td>Tam Ngoc Nguyen, North Carolina State University, USA</td>
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<td>JA2128-A</td>
<td>Pilot Training with Unmanned Aerial Vehicles Photography in One Day at Sukhothai Thammathirat Open University in Thailand</td>
<td>Sukhothai Thammathirat the Open University in Thailand was the highest priority in the development of media in the education system, design, service and the dissemination of instructional media. The School of Educational Technology was therefore required to prepare personnel in the identification and enforcement of aircraft driver Photography with Unmanned Aerial Vehicles (UAVs) or drone aircraft to be able to create teaching materials. It encourages the support of learners, teachers and also the development of personnel with technology. This project proposed: (1) to prepare the pilots to control and photography with unmanned aerial vehicles called the quadcopter, know the general knowledge about the drone, the use of UAVs in law enforcement, overview of drones' capabilities and accessories in one day. (2) to evaluate the satisfaction with the training activities. The sample used in this study was male. A total of 11 production studio and outdoor production teams were selected by the supervisor. The project which valued from lecture and practices by observation and photographic work was found that the participants were aware of the concept, including the rules governing the use of UAVs and having the knowledge about the types of unmanned aircraft and its usage. The participants could use of unmanned aerial vehicles together with accessories and used to drive unmanned aerial vehicles by the basic controller; with the beautiful photography taken in the top views. The satisfaction survey on training activities showed that the overall satisfaction was at the highest level. Satisfaction with the lecturer was found that the overall learning achievement was at the highest level. Satisfaction with the process of organizing the activities</td>
<td>Paitoon Srifa, Supanita Sudsaward and at Soponkul</td>
<td>Paitoon Srifa, Kasetsart University, Thailand</td>
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showed that the overall training was at the highest level. Satisfaction with the facilities in the activities was found to be satisfactory. The satisfaction of the project was found that the overall was at a high level. The average level of pre-test knowledge assessment and understanding of the activities was moderate and the post-test was very high.

| JA2138 | Perspectives on Creativity and Innovation Levels among Robotics Elite Team Student Members |
| 17:30-17:45 | Genevieve A. Pillar, Maricar S. Prudente, Socorro E. Aguja |
| Presenter: | Genevieve A. Pillar, De La Salle Santiago Zobel School, Philippines |
| **Abstract:** | Robotics technology is considered as a new learning program in the teaching and learning of science, particularly in STEM education. The creation of Robotics Program at the De La Salle Santiago Zobel (DLSZ) school, and its integration to the curriculum prompted the researchers to come up with an assessment on how the students perceive their level of creativity and innovativeness in doing robotics. This descriptive study involved elite members of the robotics team from Grade 4-12 (n=46) who served as the respondents to the 7-item self-evaluation instrument adopted by the researchers. Results from this study revealed that the students perceived their level of creativity and innovation in terms of the Process to be at level 3 which is tagged as “Standard” and described as proficient level of student performance. Also, under Product Design, their perceived level of creativity and innovation was Standard with Value having the highest mean (3.43). The relationship between the students’ perceptions on the Process and the Product Design of their robotics outputs proved to be significant (r=.686) at p ≤ .01. While the levels of creativity and innovation among the elite members of the DLSZ robotics was described at the Above Standard level. Interestingly, students’ sex and grade levels were found to be not significant to their perceived creativity and innovation levels. To understand fully the integration of robotics in the curriculum in relation to the performance of the students, a variety of instruments could be developed to gather a more valid and reliable assessment protocol. Likewise, assessments coming from the different collaborative stakeholders should be conducted. |

| JA2048-A | Exploring the Critical Success Factors for Blockchain |
| 17:45-18:00 | Saeh Shon, Byeong-Jin Jeon and Hee-Woong Kim |
| Presenter: | Saeh Shon, Yonsei University, South Korea |
| **Abstract:** | Bitcoin prices, which have risen sharply since the second half of 2017, have attracted attention not only to cryptocurrency but also to the underlying technology, blockchain. In the past year, the bitcoin has led to a craze for cryptocurrency investment, and governments have introduced a number of regulations to protect investors and suppress speculative demand. Blockchain technology, which enables transparent transactions among individuals without central control, opens up diverse business possibilities. It is also expected that blockchain will have a ripple effect on the entire area of society including finance, manufacturing, distribution, and the public sector. Previous studies related to the blockchain also deals with its functional features and application to industrial and public fields. In the new technology such as blockchain, it is necessary to know what social perception is in order to create technological development environment, but there is a lack of research on it. Therefore, this study aims to find out the implications for industrial and policy direction by analyzing issues related to the blockchain in South Korea and the US through text mining. From these two countries, we collected text data related to blockchain in online communities and internet articles. Then, we did co-occurrence analysis and topic modeling on them respectively. As a result of this study, we have found common points and differences in keywords and topics extracted from social media in the two countries. Based on them, we can offer helpful suggestions for building a sound blockchain ecosystem, and directions for future research. |
Session 6
Topic: E-Learning Assessment
Time: Jan. 11, 2019  15:30-17:45
Room: Conference room 63-2-4
Session Chair: Dr. Terry Inglese
**University of Applied Sciences and Arts Northwestern Switzerland, Switzerland**

*The time slots assigned here are only tentative. Presenters are recommended to stay for the whole session in case of any absence.

**After the session, there will be a group photo for all presenters in this session.*

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<td><strong>Presenter:</strong> Terry Inglese, University of Applied Sciences and Arts Northwestern Switzerland, Switzerland</td>
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<td><strong>Abstract:</strong> A majority of managers does not know what it means and how to leverage the development of new technologies and disruptive innovations for their business. Furthermore, doing business is getting increasingly complex due to globalization and specialization. Thus, it looks like everyone is hyperactively looking for an external solution to their managerial challenges while, at the same time, managers seem to have lost their intuition for future direction and are unable to step back and think about intended and unintended consequences of the digital revolution. As a University of Applied Sciences, and as a School of Business, we provide business management education for future leaders. We are committed to teach our students to appreciate the discomfort with the hard work of thinking and reflecting, and therefore to learn from the insights about innovation, strategy and personal development in order to finally achieve improved leadership competences. In this paper, we will present our lessons learnt from asking students of a leadership class at an applied university to write a reflective journal for deep learning purpose.</td>
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<td>15:45-16:00</td>
<td>Is Ratio Even Worth Experimenting? A Conceptual Review in a Blended Ecosystem</td>
<td>Malissa Maria Mahmud, Chandra Reka Ramachandiran and Othman Ismail</td>
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<td><strong>Presenter:</strong> Malissa Maria Mahmud, Sunway University, Malaysia</td>
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<td><strong>Abstract:</strong> The contention of technological integration in the context of teaching and learning has indisputably gained immense and legitimate considerations in the past decade. The advances in technological interventions and Web 2.0 have impelled numerous educational institution to experiment with and implement invigorating pedagogical models to support the online portion of the instructions. With these developments, innovative aims and trajectories are adopted by institutions to align and position themselves as being more competitive and relevant to the millennial learners. More significantly, the diffusion of technology in this circumstance – the blend of both conventional approach and technology – has rendered the “chalk and board” method as rather irrelevant to the current teaching and learning context. In spite of the growing reputation and establishment of blended learning amongst the stakeholders, there exists a few pressing issues to address. For instance, much of the disquisition revolves around the equivocal and incongruent dichotomy of the “blend” between traditional and technology which is evidently attributed to the nebulous allotment of ratio for the respective approach. Nonetheless, not much of the current research on blended learning has dedicated a clear focus or attempted to define, describe, and map the notion of ratio and its peripheries. Thus, this study aimed at conceptualizing the concept of ratio in the context of blended learning by synthesizing the existing and pertinent literature. The implication of the synthesized literature would offer novel means to conceptualize the allotment of ratio pragmatically. The study concluded by advocating fundamental tenet for future researches in the context of blended learning.</td>
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| JA2033 | 16:00-16:15 | Smarphones enhance the management of learning processes in Higher Education: A case study in Ajman University, United Arab Emirates  
**Presenter:** Rima Shishakly  
**Abstract:** Nowadays, students of this generation, specifically seen within higher education, are progressively depending on the means of technology to navigate through their daily lives. A wide variety of smart mobile and tablets devices are used, as digital instruments by university students to support ubiquitous accesses to sources of information and data. Consequently, facilitate the management of students’ administrative requirements, e-learning platforms, personal interactions and communication between themselves and their professors.  
The purpose of this study is to understand mobile technology ownership and usage behaviors among students in Ajman University, United Arab Emirates. The study intends to observe the frequency of technology usage (regarding digital devices) as a tool to access Ajman University’s interactive learning platform, Moodle. The objective is to notice whether this provides support or enhances their learning process in any way.  
This quantitative research paper aims to provide data on students' usage of digital devices in the university and to examine the students’ level of skill of technology literacy. This study verifies that smartphones are indeed the preferable digital device for these students to access information and data through learning platforms inside and outside the university. |
| JA2074 | 16:15-16:30 | Development of Applications and Website Database of Phuket Local Food for Creative City in Gastronomy  
**Presenter:** Nattaphon Rampai, Kasetsart University, Thailand  
**Abstract:** Tourism is the important way to drives economic sector in Thailand, especially in creative city in gastronomy promoting activity. The objectives of this research were to: (1) analyze and manage information in the image communication for the creative city in local food of Phuket Province, (2) design and development of an application program and website database of Phuket local food to the creative city, and (3) testing and evaluation for media using. The collecting data was done from the samples of 240 tourists. The research instruments composed of: (1) in-depth interview of the experts and academic persons in surveying and design the food tourism routes in terms of 6 local food zones, (2) the survey form in local food restaurants’ environment, (3) the basic information survey form, (4) the questionnaire for experts in analyzing of the Phuket local food dominants on the tourism routes in relation with the tourist places, and culture in Phuket, (5) Public relation media for Phuket local food which were application program and website database, video and printing materials, (6) evaluation form for experts, (7) a questionnaire for the tourists toward media using on the routes, and (8) the reflection form in public hearing meeting from the stake holders. The results showed that the quality of public relation media in 6 local food zones from the expert’s evaluation was in very good level and the public relation media on the 6 zones were very high suitability, especially on the media using for Phuket creative city. |
| JA2061 | 16:30-16:45 | Asynchronous Discussion forum: Fostering Reflection among Preservice Math Teachers  
**Presenter:** Josephine Luz S. de Leon, Don Honorio Ventura Technological State University and De La Salle University, Philippines  
**Abstract:** Web-based learning tools have been burgeoning over the past years and continuously shape instructional strategies that will stimulate students’ learning. Among these tools, asynchronous discussion forum (ADF) has been a powerful tool to invite reflection among students. However, there are substantial considerations in integrating ADF, specifically in mathematics courses, which will support desired learning outcomes. This study was designed under the paradigm of action research to investigate the learning experiences and |
challenges of preservice math teachers in answering open-ended questions via ADF. Thirty-four preservice math teachers were divided into four sub-groups, were given a problem to discuss with, and were asked to assess their experience in the conduct of ADF. Based on the structured interview, ADF supports reflection among students while challenging their minds to think critically and be understanding of others’ perspectives. It also revealed that the availability of computers and the internet connection remained to be a main challenge among the participants. Further, results showed that the type of questions given to the students served as their foundation in reflecting and thinking critically while the role and the level of participation of the instructor in ADF as well as students’ motivation influence the quality of the discussion.

The Model of Smart Online Learning for Sukhothai Thammathirat Open University’s Undergraduate Students
Gan Chanyawudhiwan and Kemmanat Mingsiritham
Presenter: Gan Chanyawudhiwan, Sukhothai Thammathirat Open University, Thailand

Abstract: This research aims to study the model of smart online learning for Sukhothai Thammathirat Open University’s undergraduate students. The research is divided into 2 phases. Phase 1 is the analysis of condition and problems of online learning of Sukhothai Thammathirat Open University’s undergraduate students. Data was collected by the interview with 15 instructors, learning system administrators, and students who studied in online learning system of Sukhothai Thammathirat Open University. Phase 2 is the design and development of smart online learning for Sukhothai Thammathirat Open University’s undergraduate students. The research found that 1) Sukhothai Thammathirat Open University is adapting to changing technology. Various technologies have been used to organize learning activities. There are additional communication channels through online media. Technologies have helped to enable easy access to the content and interaction with instructors. Social networks have been used to increase access to the content and 2) The model of smart online learning consists of 6 components: expert modules, learner module, teaching module, user interface module, knowledge module, and evaluation module. Learning process consists of 4 systems, including student ability assessment system, learning report system, student introduction system, and learning module system. The overall quality assessment by the experts was found to be at the highest level (= 4.85, S.D. = 0.36). Considering each item, it was found that the suitable media design for learning activities has the highest mean (= 4.85, S.D. = 0.36).

Portray of Student Preference on E-learning Complex Course Based on Gender
Sumenge Tangkawarouw Godion Kaunang and Junita Maja Pertiwi
Presenter: Sumenge Tangkawarouw Godion Kaunang, Sam Ratulangi University, Indonesia

Abstract: Portray of gender preferences on e-learning complex course can be figured out by way of knowing on how human memory processes information. Aim of this paper is comparison connected knowing and separated knowing correlation coefficient to identify student preference. Methodology is compilation cognitive load theory and attitude toward thinking learning survey (ATTLS) of Moodle survey plugin aids in analyzing evidence. The portrayal can be made a direction that e-learning method must specific to either sex even person by person.

The Role of Librarian as a Mediating Factor in Enhancing E-learning Process: An Instrument
Mohd Akmal Faiz Osman, Khalid Abdul Wahid, Abdul Rashid Zakaria and Huda Hamidon
Presenter: Mohd Akmal Faiz Osman, Universiti Teknologi MARA Malaysia, Malaysia

Abstract: Factors affecting e-learning in universities have been thoroughly investigated by researchers to inculcate its benefits for organization, students, and lecturers. Variety of models have been developed, tested, and used to measure e-learning such as Information System Success (ISS) and Unified Theory of Acceptance and Use of Technology (UTAUT). At first,
researchers focus on technological aspects of the system, then some authors argued that e-learning systems comprises both human and technical entity. Through extensive and exhaustive literature reviews, however, it is found out that role of librarians in enhancing e-learning have been neglected, in which many researchers believe librarians could have a key role to play in enhancing e-learning in universities. The objective of the study is to develop instrument in measuring the effectiveness of e-learning that includes technological factors (system quality, service quality, information content quality) human factors (learner’s and instructor’s attitudes) and the role of librarians as a mediating factor in enhancing the process of e-learning (librarian as reference, librarian as instructor, librarian as consultant). Pilot study took place at Universiti Teknologi MARA Malaysia where data of 100 respondents from sample collected. From the analysis using SPSS version 24, all mentioned variables used in instrument have passed the Cronbach alpha value of more than 0.7.

The Readiness Of Social Studies Teacher In E-Learning Based: A Survey Through TPACK Approach
Maryam Mustika and Sapriya

**Presenter:** Maryam Mustika, Indonesia University Of Education, Indonesia

**Abstract:** E-learning demands the ability of teachers who must be technologically literate outside of pedagogic and professional teacher competencies or commonly called the Technology, Pedagogic, and Content Knowledge approach (TPACK) in instilling in children 21st-century skills. This study aims to describe social studies e-learning based and the extent of teacher readiness in using e-learning by conducting interview angles on the TPACK approach to 5 random social studies teachers in South Sulawesi, Indonesia. The readiness of social studies teachers in e-learning is not ready due to several factors mentioned by the teacher in implementing e-learning, among them are facilities in several inland schools related to e-learning based learning that are less supportive to implement and teacher innovation related to the use of media in learning is still lacking in innovation.

### Authors’ Presentations (January 12, 2019)

**Session 7**

**Topic:** Game-Based Teaching and Evaluation

**Time:** Jan. 12, 2019    10:30-12:15
**Room: Conference room 55-1-1**  
**Session Chair: Prof. Carin Chuang**  
**Purdue University Northwest, USA**

*The time slots assigned here are only tentative. Presenters are recommended to stay for the whole session in case of any absence.*  
**After the session, there will be a group photo for all presenters in this session.***

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| JA2005  | Development of an SNS Education Game for Higher-Grade Elementary School Children | Masaki Fujikawa, Ryoya Kanou, Airi Itoh and Yoshie Abe | **Presenter:** Masaki Fujikawa, Kogakuin University, Japan  
**Abstract:** Increasing numbers of older elementary school children are receiving smartphones from their parents and using social network service (SNS) applications. The Ministry of Education, Culture, Sports, Science, and Technology of Japan (MEXT) has been promoting information morals education by issuing educational guidelines, because such morals (which include ethics, understanding and following the law, and information security knowledge and skills) are essential when using SNSs. However, schools are struggling to find sufficient time for information morals education, meaning the guidelines’ goal for children “to be proactive, interactive, and learning deeply” is not currently being achieved. In this paper, we describe our plans for an SNS education game, which we propose to set as homework during the summer holidays in order to reduce the burden on teachers and achieve the Ministry’s aims in practice. This game is designed to fulfill six requirements and takes into account pupils’ characteristics, as well as the features and issues with existing educational games. |
| JA2085  | An Amazing Way To Learn Stem Concepts Developing Sustainable Cities Idea In The Citizens Of The Future: The Methodology Of Erasmus+ Project DIGITgame (Digital Improvement by Game In Smart City Projecting) | Laura Bonora, Francesca Martelli and Valentina Marchi | **Presenter:** Francesca Martelli, National Research Council - Institute of Biometeorology, Italy  
**Abstract:** DIGITgame is a project founded by the E.U. in the framework of Erasmus+ program, axis KA2 ‘Cooperation for Innovation and the Exchange of Good Practices’ and objective ‘KA201 - Strategic Partnerships for school education’. It intends to improve scientific skills and competence through more effective and innovative teaching methods. The project, started in 2018 January, will be closed in 2019 December; the activities are already in progress and the present work intends to communicate the methodological approach that has been adopted by the project Consortium. The strategy, elaborated by the project Consortium (Italian, Turkey and England partners) to reinforce learning skills, is based on Smart City projecting actions by the development of a didactic mini-game with challenges based on the scientific concepts acquired. DIGITgame proposes a new approach to communicate and teach traditional topics of environmental sciences using the new thematic of Smart Cities and taking advantage introducing the videogame solution. This didactic strategy will permit to reinforce the achievement of advanced and high-quality competences, both in scientific topics and digital knowledge. It is the way to reinforce the consciousness on sustainable and smart cities policy and management in the citizen of the future. The mini-game is organized around a set of "basic variables" (climate, industrialization, green level, green transports) that design the virtual city contest, the students challenge is to project and build the "assets" (urban trees, urban climate detection by weather station positioning, green transports, solar panel and recycle stations distribution, smart building) from a dare point of view, balancing costs, scores, constrains and final goal. Each asset represents a subject of the official national school's curriculum in IT and TK and it will be the subject of in-room lessons and seminars. The match between traditional approach, gamification challenge and informatics is the keystone to turn young students in involved and aware citizens. All the project steps are |
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| driven by questionnaire that have showed us the present under involvement of young people in environment knowledge and planning and will supply the Consortium in tuning the skill in a more effective students training. | The Evolutionary Development of a Serious Game for Clinical Laboratory Students  
Nuwee Wiwatwattana and Natinan Bunyakul  
**Presenter:** Nuwee Wiwatwattana, Srinakharinwirot University, Thailand  
**Abstract:** Implementing hands-on experience for clinical laboratory can be a challenge due to budgetary constraints. To provide students with the opportunity to practice repeatedly before applying the knowledge to the live laboratory setting, a mobile serious game called “Clinic Chemistry” was developed. In this paper, we share the experience in developing two versions of the game from the perspective of game designers/developers as part of an end-to-end educational game research. We have adopted the evolutionary rapid prototyping paradigm to create the early prototype, the pre-alpha. The pre-alpha was then evolved into the alpha release. The pre-production and production steps of the two versions, as well as evolved game components, are reported. We conclude that the rapid prototype is the key to our successful release of the game. |
| JA2096  
11:00-11:15 | Gamified Physics Instruction in a Reformatory Classroom Context  
Analyn Tolentino and Lydia Roleda  
**Presenter:** Analyn N. Tolentino, De La Salle University, Philippines  
**Abstract:** Gamification is the use of game elements and game-design techniques in non-game contexts. It has five main elements: points, badges, leaderboards, rules and levels. A classroom that has any or all of these elements can be considered a gamified classroom. This study explored the effects of a gamified environment to the motivation and achievement of high school students in Physics. The framework of the study is anchored on the Self-Determination Theory which claims that humans are inherently active, inquisitive and self-motivated even without external reward. However, extrinsic motivators can be converted to intrinsic motivators if they are meaningful, pleasurable and consistent with a person’s worldview. To determine if gamification has a significant effect on the student motivation, the students’ responses to the pre-gamification and post-gamification administration of the Physics Motivation Questionnaire were compared using the paired sample t-test on SPSS. Its effects to student achievement in Physics, on the other hand, was identified after calculating the mean normalized gains for all the pretests-posttests administration after each of the 5 modules. Feedback from students, teacher-implementer and external observers were collected and analyzed. Results showed that gamified instruction brings about a significant increase in student achievement in Physics but not in student motivation. However, the feedback coming from students, teacher-implementer and external observers substantiate the influence of gamification to student motivation. Implementation must be done properly so that no unhealthy competition develops, no student becomes extremely grade conscious that he or she ends up resorting to cheating and that an environment conducive to learning is maintained inside the classroom. Consequently, it is recommended that more rigorous studies should be done to further confirm or invalidate the effects of gamification in learning Physics that are exposed in this study. |
Effectiveness of Kinect-Based Application in Gamification Approach for Preschooler: Case Study in Taska Permata Perpaduan, Kuantan, Pahang, Malaysia
M. Rahmah and Z. Siti Aishah

**Presenter:** Rahmah Mokhtar, Universiti Malaysia Pahang, Malaysia

**Abstract:** The infusion of technology in education has become best practice to motivate student engagement as well as enhancing student performance in learning. Gamification approach is one of teaching strategy where use game elements in education which involves multi-sensory that help learner improves their understanding better and enhances the desires to learn. The multi-sensory involved are visual, auditory and kinesthetic. However, there are less number of tools or applications used in preschool which, applied for kinesthetic learners. It may lead towards underachievement outcome, such as low grade, slow learner and frustrated teacher. Thus, the Kinect-based application is proposed to be developed as a platform for teaching strategy which can be applied to different styles of learning. This paper aim to study about the effectiveness of Kinect-based application of the gamification approach for the preschooler in Kuantan. The case study approach used a mixed method research design is performed to meet the aim. The research is carried out to the 15 preschoolers who aged three and four years old in Taska Permata Perpaduan Kuantan, Pahang, Malaysia, in order to validate the effectiveness of Kinect-based application of gamification approach. The quantitative part of this research is conducting a controlled experiment and a survey to preschool teachers. Meanwhile, the qualitative part of this research was based on the semi-structured interview session with the preschool teacher and a participant observation is conducted to student engagement. Based on the experiment result, it shows that the total number of preschoolers that increase after using Kinect-based application is high, at 73.3%. Hence, it proves that preschoolers are motivated to learn and improve their learning outcomes using gamification approach.

Effectiveness of Kahoot as a Revision Tool in Studying Waves
Jhoanne Catindig and Maricar Prudente

**Presenter:** Jhoanne Catindig, De La Salle University, Philippines

**Abstract:** This paper focused on the effectiveness of Kahoot, a game-based student response system, as a revision tool in studying waves. There were sixty-six G12 student participants from an all-boys school in Metro Manila Philippines. The students were all enrolled in SY 2016-2017 and came from different K-12 strands: Science Technology, engineering and Mathematics (STEM), Business, Administration and Management (BAM) and Humanities and Social Sciences (HUMSS). The students were grouped into two, one section (group A) used Kahoot during their revision in waves while the other group (group B) used the common way of revision in which teacher projects the items on the screen and wait for the students to answer each question. Both group of students had the same number of sessions and number of formative assessments in waves. Results showed that there is a significant difference in students’ performance in terms of their summative test grades. Group A, who used Kahoot got a significantly higher summative test grades than Group B. In terms of students’ perception with the use of Kahoot as a revision tool in studying waves, results showed that most students: 1) had fun during the game; 2) agree that they learned something from the game; 3) said that they will recommend the game; and 4) felt positive after the game. Results also revealed that the performance of the students in the summative test is largely associated with their perception of learning and feeling.
| JA2092 | A Synthesis Framework of Constructivist Gamification-based Learning Environments Model to Enhance Self-regulation for Undergraduate Students  
Srisuda Daungtod and Sumalee Chaijareon  
**Presenter:** Srisuda Daungtod, Khon Kaen University, Thailand |

**Abstract:** The purpose of study was a synthesis framework of constructivist gamification-based learning environments model to enhance self-regulation for undergraduate students. Research designs were document analysis and survey. This study was based on developmental research in phase 1 was model development. The target groups were the 13 experts reviewed document and design framework, the 145 students in Computer Education, Faculty of Education, Nakhon Phanom University. The studies were document analysis and survey method. Data were analyzed by analyzing and summary interpreting. So, the results from this analyzed was the theoretical framework that consist of 5 foundation bases revealed the following: 1) Context base 2) Psychological 3) Technology and media base and 4) Learning environment with gamification. The designing framework consisted of 4 crucial bases as the following: 1) The activation of cognitive structure and enhance self-regulation 2) The support for adjusting cognitive conflict and enhance self-regulation 3) The support for extending the cognitive structure and enhance self-regulation and 4) The support and enhance self-regulation.
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<td>JA2102</td>
<td>Online Higher Education Teaching Practices</td>
<td>Paolo Raviolo</td>
<td>In the last years, the number of online courses offered by the Italian Universities has increased significantly and it has reached overall 100 courses and 77,000 students enrolled. Many academics have thus experienced the design of online courses delivered by means of Virtual Learning Environments. The aim of the research reported in the present contribute is to investigate this scenario with respect to the Italian Universities. We assumed that a reconceptualization of the models for University’s online teaching activities has triggered the born of new communities of practices (CoPs), that emerged to animate the search for more effective and sustainable online teaching models. The survey focused on the presence and the key features of CoPs for online teaching. The results of the survey confirm the presence of informal learning dynamics within the University’s organizations: a common repertoire, a sense of community and active interactions toward common objectives were identified and described by the interviewees.</td>
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<td>JA2127-A</td>
<td>Using Pilot Course- Creative Thinking Curriculum facilitate the CDIO framework for freshman</td>
<td>Yao-Chuan Lee, Chun-Wen Teng, Shu-Hui Chen and Chun-Wei Chen</td>
<td>Sukhothai Thammathirat the Open University in Thailand was the highest priority in the development of media in the education system, design, service and the dissemination of instructional media. The School of Educational Technology was therefore required to prepare personnel in the identification and enforcement of aircraft driver Photography with Unmanned Aerial Vehicles (UAVs) or drone aircraft to be able to create teaching materials. It encourages the support of learners, teachers and also the development of personnel with technology. This project proposed: (1) to prepare the pilots to control and photography with unmanned aerial vehicles called the quadcopter, know the general knowledge about the drone, the use of UAVs in law enforcement, overview of drones' capabilities and accessories in one day. (2) to evaluate the satisfaction with the training activities. The sample used in this study was male. A total of 11 production studio and outdoor production teams were selected by the supervisor. The project which valuated from lecture and practices by observation and photographic work was found that the participants were aware of the concept, including the rules governing the use of UAVs and having the knowledge about the types of unmanned aircraft and its usage. The participants could use of unmanned aerial vehicles together with accessories and used to drive unmanned aerial vehicles by the basic controller; with the beautiful photography taken in the top views. The satisfaction survey on training activities showed that the overall satisfaction was at the highest level. Satisfaction with the lecturer was found that the overall learning achievement was at the highest level. Satisfaction with the process of organizing the activities showed that the overall training was at the highest level. Satisfaction with the facilities in the activities was found to be satisfactory. The satisfaction of the project was found that the overall was at a high level. The average level of pre-test knowledge assessment and understanding of the activities was moderate and the post-test was very high.</td>
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| JA2149 11:00-11:15 | Application of Acrostic Techniques in Learning Writing Poetry  
Ratmiati, Lidya Mustika Sari and Isah Cahyan  
**Presenter:** Ratmiati, Indonesia University Of Education, Indonesia  
**Abstract:** This study aims to improve poetry writing skills with an acrostic technique in fifth grade students of elementary school. This research is descriptive qualitative. This type of research is classroom action research (Class Action Research) which consists of two cycles with the intensity of each cycle carried out three times. Research procedures include planning, implementing actions, observing and reflecting. The subjects in this study were 34 grade V elementary school students. The results of this study indicate that in the first cycle individually of 34 students only 21 students met the minimum completeness criteria, with an average of 72.35 in the "Low" qualification. Meanwhile, in the second cycle all students reached of Minimum completeness criteria with an average of 80 in the "High" qualification. From the results of this study, it is sufficient to prove that the application of the acrostic technique in learning to write poetry in grade V elementary school is very appropriate because the technique can improve student learning outcomes in writing poetry. |
| JA2097 11:15-11:30 | Innovative Problem-Based Learning Integrated with G Suite for Education  
Lawan Sriphong  
**Presenter:** Lawan Sriphong, Silpakorn University, Thailand  
**Abstract:** An innovative problem-based learning integrated with G Suite for education was established to facilitate the knowledge of pharmaceutical analysis and support 21st century skills for pharmacy students. Evaluation of learning outcomes demonstrated the effectiveness of knowledge constructions through the PBL process. Regarding G Suite, it was demonstrated to be a powerful Web 3.0 collaboration and communicating tool that can strengthen PBL in supporting students to enhance specific 21st century skills including, effective self-directed learning skills, problem-solving and critical thinking skills, impressive collaboration skills, communication skills, creative and innovation skills and computing and ICT skills. Positively, students presented high satisfaction for experience in practicing self-directed learning and their own approach for life-long learning, learning method with positive encouragement and teamwork development. |
| JA2152 11:30-11:45 | Design Action In Primary School Students Class V For High And Medium Group Related Food Themes  
Lidya Mustikasari, N. Tatat Hartati and Rinita Rosalinda Dewii  
**Presenter:** Lidya Mustikasari, Indonesia University Of Education, Indonesia  
**Abstract:** This study aims to determine the role of design action adapted from design thinking with project-based learning on the scientific literacy of elementary school students related to the theme of food. The subjects of the study were elementary school students from grade V of some State schools in Bandung District, West Java – Indonesia, which amounted to 70 students and divided into high groups of 20 students and the moderate group of 50 students. The research method used is quasi-experiment with design one group pretest-posttest design. Instruments used include questions of scientific literacy tests, observation guidelines, attitude scales, and questionnaires. The results showed that there was a significant increase in the scientific literacy of high and medium group students based on the results of the test seen from the statistical calculations through t-test, where p-value (2-tailed) = 0.000 <0.05. However, in attitude, although there was an increase but not significantly different between the high and medium group. |
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<td>JA2110</td>
<td>Elucidation of Essential Maps for 4Cs and Information-Media Literacy</td>
<td>Denis Dyvee Errabo, Maricel Berdan and Maricar Prudente, De La Salle University Manila, Philippines</td>
<td><strong>Abstract:</strong> Curriculum development is a dynamic process of iterating multi-literacy which inspires the creation of knowledge and enable to prepare students to meet the challenges of the modern world. Driven by societal imperative and contextual relevance, ideally, the 21st century learning skills and information-media literacy skill shall provide the backbone of Science teaching. Thus, this Action Research aims, to elucidate the integration of 4Cs (communication, collaboration, critical thinking and creativity) as well as to trace the development of information-media literacy and skills through essential mapping technique in order to support the ongoing implementation of the recently crafted Junior High School Science curriculum of the Philippines. As a result, learning activities promoting 4Cs are limited to: performing scientific investigations; role playing; chart &amp; poster making; improvisation &amp; demonstration activity; story making; role playing; multi-media &amp; visual presentation; and simulation activity. The information-media literacy can be developed by the following learning strategies: multimedia presentation; group reporting; performing scientific investigations &amp; experimentations; debating activity; modelling, role playing &amp; simulation activity; portfolio making; improvisation &amp; model-making activity; concept making; and diagram making &amp; illustration activity. Problems such as the platforms, the teacher’s socio-economic status, tedious teacher’s tasks, and lacking support from the community &amp; other stakeholders affect the implementation of the curriculum framework.</td>
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<td>JA2088</td>
<td>Development of Internal Quality Assurance Model in Higher Education Institution</td>
<td>Andi Mursidi, Eka Murdani, Soeharto, Sumarli, I-Hsien Ting and James C. Wu, Stkip Singkawang, Indonesia</td>
<td><strong>Abstract:</strong> Development of Internal Quality Assurance Model in Higher Education Institution will provide guidelines to the achievement of organizational goals. The purpose of this article is to provide an Internal Quality Assurance Model in the Higher Education of Teacher Training and Education Singkawang (STKIP Singkawang). This paper uses a qualitative approach with multiple case study design. The data collection techniques used is interviews, observation, and documentation. There are two strategic management practices which are applied and appear in STKIP Singkawang’s Internal Quality Assurance Model; (1) the existence of a factual model of STKIP Singkawang, and (2) types of innovative model decisions which are implemented in STKIP Singkawang. The research result give information about (1) System of Internal Quality Assurance of STKIP Singkawang have 30 quality standards; and (2) Model of Internal Quality Assurance have been developed is DIECU Model. DIECU Model is Deciding, Implementation, Evaluation, Check and Upgrading cycle. DIECU is model of continuous improvement for sustainable quality assurance.</td>
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**Session 9**

**Topic:** Educational Information Technology Development and Assessment
**Opening Speech**

**JA2079-A**  
10:30-10:45  

**E-Learning Platforms, Security, and Cloud Computing Infrastructure in Western Canadian K-12 Districts**  
Peter Holowka  

**Presenter:** Peter Holowka, University of Calgary, Canada  

**Abstract:** As the use of educational technology expands globally, so too do concerns over reliability, access, sustainability, information security, and user privacy. This presentation addresses the challenges and solutions used in Western Canadian K-12 school districts. The findings and implications of this presentation are based on an exhaustive study of all 75 large K-12 districts in Canada's three westernmost provinces: British Columbia, Alberta, and Saskatchewan. Multiple case study analysis, followed by correlation analysis, was used to explore the nature of IT infrastructure and cloud computing use in these provinces. A data transformation model mixed methods triangulation design methodology was used. This study encompassed over 1.1 million students and a geographical area of 2,258,483 square kilometres. The findings and implications of this exhaustive research provide a template for educational organizations around the world to balance the critical goals of pedagogy, financial viability, regulatory compliance, and security through their IT infrastructure design.

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**JA2093**  
10:45-11:00  

**Recognizing Offline Handwritten Mathematical Expressions Efficiently**  
Junyi Dai, Yuan Sun, Guiping Su, Shiwei Ye and Yi Sun  

**Presenter:** Yuan Sun, National Institute of Informatics, Japan  

**Abstract:** In this study, we propose a system that can recognize offline handwritten mathematical expressions using limited training data. The purpose of the system is to exhibit a high recognition accuracy with a few training data and to allow everyone to form a recognition module with a small sample of his or her own handwriting. The system comprises three main parts: segmentation, symbol recognition, and structural analysis. A recursive cortical network is used to form the recognition part of the system and a new type of linked list is proposed to analyze the complex structure of the expressions. We prepared 400 real handwritten mathematical expressions from 20 different people, containing a total of 60,103 symbols from 100 symbol classes to evaluate the performance. The system was trained using one image per class and achieved 80% accuracy on the correct segmentation result.

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**JA2130**  
11:00-11:15  

**Need of E-Integrated Science Teaching Material Developed Using 4S TMD Model For Science Learning and Teaching in Junior High School**  
Ghery Priscylio, Sjaeful Anwar and Salmawati  

**Presenter:** Ghery Priscylio, Indonesia University Of Education, Indonesia  

**Abstract:** In this article, we explain the needs of E-integrated science teaching materials in junior high school. As technology develops, integrated science learning also needs to be supported by electronic-based teaching materials. Electronic teaching materials included in this research are the materials such as e-books, e-magazine, e-news, e-journal, CD / DVD interactive multimedia flash models, interactive slides and e-learning. we use a qualitative descriptive research. The instruments of data collection used in this study were structured questions and interview. This study was conducted in junior high schools 29 of Bandung with 4 science teachers and 25 seven-grade students. The teachers and students' structure question responses were analyzed descriptively for each item. Most students wanted more interesting, colorful, pictorial, video loading teaching materials. However, some teachers were not very
| JA2122 11:15-11:30 | Development of Fairy Tales Electronic Book Design Model Using Digital Storytelling in Gamification Environment to Enhance Creative Thinking and Happiness in Learning Pimprapa Phanphai, Prakob Koraneekij and Jintavee Khiaisang

**Presenter:** Pimprapa Phanphai, Chulalongkorn University, Thailand

**Abstract:** The objectives of this research were 1) to investigate the state and needs of the fairy tales electronics book design and 2) to develop the design model of fairy tales electronics book. This research was the quantitative research which used the data collection instrument as 1) questionnaire in order to analyze the data by using the mean (X̄) and percentage 2) interview and 3) evaluated forms by using the mean (X̄) and standard deviation (SD). The size of sample group was specified by the formula of Cochran (1996). The sample group which was measured through the questionnaire was the primary school teachers for 432 people and upper primary students for 612 people which affiliated with the Office of the Basic Education Commission of 4 regions in Thailand. The sample group which was measured by interview method consisted of the upper primary students for 10 people and experts for 7 people. Lastly, the sample group which was measured by the evaluation forms was 5 experts. The research result presented that the state and needs of mostly teacher and student was the ability of using the website device such as Social Media Search Engine Documentation Presentation Online. Most people had available computer and smartphone which were able to access the internet and necessary with doing the learning activities through the modern devices on website to reach the various sources of knowledge, increased the attention of learning, and applied the design model of fairy tales electronic book by the digital storytelling under the Gamification Environment to encourage the creation and happiness of learning. The summary from the expert found that the learning models consisted of 5 components; 1) Digital Storytelling, 2) Gamification Environment, 3) Role of Learners and Teachers, 4) The Learning Resources and 5) Measurement and Evaluation which contained with 6 processes (PENCIL Model) as 1) Planning a Story Map and Brainstorming, 2) Exploring Resources and Making Storyboard, 3) Narrative Storytelling, 4) Checking the Story and Reflecting, 5) Interactive Social Media Posting, and 6) Learning Evaluation. The PENCIL Model Certification Model Assessment was the most appropriate position which was able to use as the trial.

| JA2134 11:30-11:45 | The Use of Chemistry E-Book Developed by 4S TMD: Upper High School Teachers and Students’ Views

Salmawati,Sjaefula Anwar and Ghery Priscylio

**Presenter:** Salmawati, Indonesia University Of Education, Indonesia

**Abstract:** This study investigates how upper high school teachers’ and students’ views on the use of chemistry e-book developed by 4S TMD. In academia, e-book is progressively playing a central role in teaching, learning and research, as it helps to increase access timely and diverse scholarly material. In line with this purpose, the present study aimed at determining the views of teachers and students regarding e-book developed by 4S TMD. The participants of the study were three teachers and nine students. In this study, qualitative methods were used by semi-structured interview. The results revealed that the use of e-book developed by 4S TMD provides positive results in learning activities both in the views of teachers and students. The use of e-book can increase the productivity of learning, help teachers to streamline the efficiency of learning time, easy to carry, information is more concrete and allows students to be independent.
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<tr>
<th>Session</th>
<th>Topic: Information Technology and Its Application</th>
<th>Time: Jan. 12, 2019 10:30-12:15</th>
<th>Room: Conference room 63-2-4</th>
<th>Session Chair: Prof. Yongsheng Ma</th>
<th>University of Alberta, Canada</th>
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*The time slots assigned here are only tentative. Presenters are recommended to stay for the whole session in case of any absence.
**After the session, there will be a group photo for all presenters in this session.
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<th>Session</th>
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<tr>
<td>JA2020</td>
<td>A Case Based Approach to Skin Cancer Screening</td>
<td>Jorge Manuel Ferreira Barbosa Ribeiro, IPVC - Polytechnic Institute of Viana do Castelo - School of Technology and Management, Portugal</td>
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<td>10:30-10:45</td>
<td>Abstract: Skin Cancer is one of the most hazardous forms of the illness; even worse is malignant melanoma, which may lead to death due to the rapid metastasis process and late diagnosis. Altering cutaneous lesions or caring for cancer patients is of paramount importance, i.e., the development of signals that reflects the main features of benign or malignant liver spots, and the changes they undergo can help doctors act before it is too late. Thus, the present work describes the development of a decision support system that aims to predict if a patient is at risk of developing malignant melanoma and help physicians in the decision-making process. Such system exploits image analysis method for quantitatively evaluating skin tumor dimensions and it is grounded on a computerized framework grounded on a Case Based Reasoning approach to problem solving, complemented with a Knowledge Representation and Reasoning method that considers unknown, incomplete or even self-contradictory data or knowledge. It was introduced the Vague Predicate Extension paradox and a new category of similarity measures and entropic values.</td>
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| JA2106  | Designing Web Services with MVC for Classification Rice System                                  | Pattama Charoenporn, King Mongkut’s Institute of Technology Ladkrabang, Thailand                |
| 10:45-11:00 | Abstract: In this paper, we describe the design of web service with model-view-controller for implement the system of classify type of rice. This idea using LDA and SVM to estimate a rice surface area, and then we present this idea by create web service architecture and present prototype used in mobile. The process of making a model are choosing the literature of rice attribute compare with a hundred pieces of rice in different sizes and type, and then analyzed all of example by create web service that implement under spring MVC idea. In testing method of technique, we create prototype of web service and test function by user. The result shows that the model gives accurate result with very small errors and is also flexible to any change in all process. |

| JA2125  | A Proposal of Interaction Analysis Framework for Multilingual Discussion                          | Yuqi Liao, Yuya Ieiri and Reiko Hishiyama, Waseda University, Japan                           |
| 11:00-11:15 | Abstract: Global problems, such as environmental issues, refugee crises, and food shortages, transcend borders and must be addressed at the international level. The goal of our research is to examine ways in which we can clarify common features, similarities, and differences in people’s thinking to confront problems among people who speak different languages. In our study, we first designed an interactive analysis framework for analyzing the similarities and differences in thinking among different people. To evaluate the effectiveness of our proposed framework, we conducted experimental discussions combined with making a mind map about environmental issues among Chinese and Japanese-speaking participants. After the discussion activity, we analyzed the logs and mind maps by focusing on keywords and the flow of information. Our results showed that the participants had various ways of thinking about environmental problems and their solutions. We succeeded in summarizing the similarities and differences as discussion points and share them using our framework in a visible form. |

<p>| JA2035  | Feature-based Facebook Reviews Process Model for E-Management using Data                        | Anish Kumar Varudharajulu and Yongsheng Ma, University of Alberta, Canada                    |
| 11:15-11:30 | Abstract:                                                                                      |                                                                                                |</p>
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<th>Abstract: The data generated from online communication acts as potential gold mines for discovering knowledge for researchers. A large amount of data is also generated in the form of web documents, emails, blogs, and feedback, etc. Text analytics is being significantly employed to mine important information. Opinion mining is the process of extracting human thoughts and perceptions from unstructured texts. The showstopper for designing an opinion mining system for analyzing reviews arise from the fact that customer reviews are often noisy. These reviews are informally written. In addition, they are subjected to spelling mistakes, grammatical errors, improper punctuation and irrational capitalization. This paper focuses on analyzing the different classification and clustering algorithms aimed at extracting and consolidating opinions of customers from social media sites like Facebook, Twitter and through surveys, at multiple levels of granularity to monitor and measure customer satisfaction. Ours is an automated approach, in which the system aids in the process of knowledge assimilation for knowledge-based building and also performs the analytics. Domain experts ratify the knowledge base and also provide training datasets for the system to intuitively gather more instances for ratification. The system identifies opinion expressions as phrases containing opinion words, opinionated features and also opinion modifiers. These expressions are categorized as positive, negative or neutral. Opinion expressions are identified and categorized using localized linguistic techniques. Opinions can be congregated at any desired level of specificity i.e. feature level or product level, user level or service level, etc. We have developed a system based on this approach, which provides the user with a platform to analyze opinion expressions crawled from a set of pre-defined datasets.</th>
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| Perceived Effects of Computer-aided formative Assessments on Lesson Planning and Student Engagement  
Rholec O. Virata and Cornelio B. Javier  
**Presenter:** Cornelio B. Javier, St. Scholastica’s College, Philippines |
| JA2157  
11:30-11:45 |
<p>| Abstract: The use of computer-aided formative assessments was studied in this work through a case study design, focusing on the implementation of two teachers teaching in an exclusive school for girls. The use of CAFA was made possible by classroom tablets, and a wireless local connection. The teachers designed lessons that implemented CAFA at the beginning of each lesson, with three topics being implemented for three weeks. Results from teacher interviews show that the two teachers have felt more motivated to teach the lesson but saw the need for more focused and dedicated preparation process. They also saw the opportunity and freedom to revise the lesson on the spot, depending on the assessed students’ preparedness. Student reflections show that students perceive CAFA as additional work, but a necessary preparation for the summative test. Overall, this research found that the classroom become more interactive and more engaging through the use of CAFA. |</p>
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<th>Session</th>
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<th>Authors</th>
<th>Presenter</th>
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<td>JA2087</td>
<td>Walk Rally Application Development Environment Suitable for Individual Situations</td>
<td>Yuya Ieiri, Yuu Nakajima and Reiko Hishiyama</td>
<td>Yuya Ieiri, Waseda University, Japan</td>
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<td>11:45-12:00</td>
<td><strong>Abstract:</strong> The Walk rRally application is a mobile application that encourages users to walk around an area using mobile terminals. Several Walk rRally applications have been developed for use in various situations. However, depending on the area and the purpose of use, the information presented in the walk rally application and the functions required for it are different. Therefore, it is necessary to individually develop the Walk rRally applications suitable for each specific situation, and this of course becomes and is expensive to individually develop walk rally applications. So, in this study, we developed a walk Walk rally Rally application development environment named “Machinavi”. In this development environment, where various functions are independently developed as business logic in order to make it possible to enable use in various situations. By combining Customizing the business logic according to the purpose of use, makes it possible to develop a walk rally Rally applications suitable for various situations. In our research, by using Machinavi the development environment, we developed three Walk rRally applications for use in different specific situations: an event, a sightseeing spot, and a commercial area. The results of experiments and a questionnaire survey demonstrate and then showed the effectiveness of the walk Rally applications developed by using this development environment by questionnaire survey.</td>
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<td>JA2049-A</td>
<td>A Text Mining Approach to the Analysis of e-Learning Satisfaction</td>
<td>Sun-Gyu Lee, Soobin Choi and Hee-Woong Kim</td>
<td>Soobin Choi, Yonsei University, South Korea</td>
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<td>12:00-12:15</td>
<td><strong>Abstract:</strong> E-learning has improved the educational effect by making it possible to learn anytime and anywhere by escaping the traditional infusion education. As the use of e-learning system increases with the increasing popularity of e-learning, it has become very important to measure e-learning satisfaction. In this study, we used the mixed research methodology to identify satisfaction factors of e-learning learners. The mixed research method is to perform both qualitative research and quantitative research at the same time. As a quantitative research, we collected 595,416 reviews completed by learners who studied 21,967 lectures in 15 categories by text mining. We classified higher grade lecture and lower grade lecture by measuring the average and standard deviation of user ratings. Topic modeling was used to derive factors from reviews. Also, this study conducted an in-depth 1:1 interview on e-learning learners of various ages and jobs as a qualitative research. By combining these results, we were able to derive factors for e-learning satisfaction / dissatisfaction. Based on these factors, we suggested ways to improve e-learning satisfaction in terms of government, lecturer, system, and contents by using ISS (Information System Success) model and e-learning success model. In contrast to the fact that survey-based research was mainly conducted in the past, this study collects actual data by text mining. The academic significance of this study is that the results of the topic modeling are combined with the data based on the information system success model and the e-learning success model.</td>
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<td>JA2148</td>
<td>13:30-13:45</td>
<td>PetCare: A Smart Pet Care IoT Mobile Application</td>
<td>Alexis Anne A. Luayon, Gio Francis Z. Tolentino, Van Keith B. Almazan</td>
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<td>JA2147</td>
<td>13:45-14:00</td>
<td>E-Participation Service in Malaysian E-Government Website: The User Experience Evaluation</td>
<td>Nasrah Hassan Basri, Wan Adilah Wan Adnan and Hanif Baharin</td>
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<td>JA2086</td>
<td>14:00-14:15</td>
<td>How E-Collaboration and E-Services Ensure Free Market Flows and Consumer Benefits. The Case of Spanish Transportation Services</td>
<td>Inés Martín de Santos, Marina Mattera and Luana Gava</td>
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such as transportation apps contribute to a wider variety of choices for consumers, enabling free market competition despite of complaints by traditional workers in the sector. Results show the positive changes in the transportation sector thanks to the introduction of e-collaboration and digital services.

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<th>JA2081</th>
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<tr>
<td>Software Visual Specification for Requirement Engineering Education</td>
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<td>Fauziah Binti Zainuddin, Ruzaini Abdullah Arshah and Rozlina Mohamed</td>
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**Presenter:** Fauziah binti Zainuddin, Universiti Malaysia Pahang, Malaysia

**Abstract:** Requirement engineering course is perceived as an important course that become one of compulsory courses to be thought to Software Engineering graduates. However, Requirement Engineering Education (REE) is suffering from difficulty in content delivery (lecturer) and learning (student) due to the nature of Requirement Engineering theoretical and diversity of knowledge especially in teaching the student how to specify the requirement. In order to overcome this problem, software visualization approach is introduced in learning requirement engineering course focus on specifying the requirements. A control experiment was conducted to study the applicability of the approach. Based on the analysis of the survey data, the proposed approach seems able to give positive impact to the quality of overall requirement specification.

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<th>JA3005</th>
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<td>Enhancing value proposition through AI strategy; a case study on a targeted application of AR in Field Support</td>
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<td>Sanjay Bhāle</td>
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**Presenter:** Sanjay Bhāle, Indira Institute of Management, India

**Abstract:** Artificial intelligence (AI) is increasingly being integrated into core business strategies. AI and its allied applications are impacting the function of all disciplines, processes and the fellow professionals in emerging business ecosystem today. It has transformed the way an enterprise work and how it exploits new technology and business avenues improving the quality of solutions in field support. This in turn, has also built an ecosystem right from the design, construction of system application and managing it through virtual interface. This study aims to uncover strategic imperatives of AI and productive impact of corresponding AR (Augmentative Reality) technologies with the help of a case-study of an IT (information-technology) firm. In this paper, the author explores the conceptual as well as application competence of AR by thoroughly examining the literature, contemporary trends and innovative applications.

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<th>JA2117</th>
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<td>Towards the Development of E-Barangay Mobile Application</td>
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<td>Rex P. Bringula, Mark Anthony D. Vale, Daniel Joseph T. De La Serna, Franklin Oliva and Jenard A. Napolis</td>
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**Presenter:** Rex P. Bringula, University of the East, Philippines

**Abstract:** This mixed-method study determined the design aspects of a mobile application for the services offered by the local government units (LGUs) (called barangay) in the Philippines. The quantitative part of the study utilized a content validated questionnaire. Thirty local residents participated in the survey. The qualitative part of the study involved 3 informants which were composed of local officials from the LGUs. They were interviewed in 3 different occasions. It was found that, in order to provide better public services, the LGU could have a mobile application that accepts residents’ complaints, disseminates information, expedites processing of government documents, and supports decision-making. Thus, the mobile application – named E-Barangay – with such capabilities is developed. Conclusions and recommendations are also discussed.

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<th>JA2082</th>
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<td>Implementing White Hat Search Engine Technique in E-Business Website</td>
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<td>Ah Roslina and Mf Nur Shahirah</td>
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**Presenter:** Roslina Abd Hamid, Universiti Malaysia Pahang, Malaysia

**Abstract:** In today’s worldwide of e-business marketing, it is important to know about search engine. Search Engine Marketing (SEM) is to use to gain visibility of the website based on the keywords. Consumer often interested in the top list of search results, therefore it is necessary that the webpage can be ranked at the top. Search Engine Optimization (SEO) tends to use varies type of techniques such as White Hat search engine optimization and Black Hat search engine optimization the purpose of the research is to analyze, design and develop a domain website using White Hat SEO techniques. White Hat SEO techniques uses the collected data including the website URL, some keywords or keyword groups that define the content of the web site. The website published using a chosen platform verified by Google Search Console and tested in Google Search engine. The website achieving high ranking results in Google Search which is in the top three of the first page in Google search. The result obtained shows that the White Hat SEO technique was correctly implemented.

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<tr>
<th>Moderatoring Effects of Price Consciousness in Interactive E-Tailing Setting: Differences between Volume Segments</th>
<th>Hsing-Chi Hwang, The University of Texas at Austin, USA</th>
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<td><strong>Abstract:</strong> The current study investigates how the application of interactive features in online merchandising platforms influences consumers at various shopping levels (i.e. heavy versus light shoppers). In particular, interactive music, an innovative audio format where users’ on-screen actions alter the musical components (Winkler, 2001), is adopted to create a user engaged e-commerce environment. Perceived user control and psychological arousal are hypothesized to explain the positive impact of interactivity and musical stimuli on consumer perception and behavior respectively. Through a single-factor experiment with three conditions (the interactive music condition, the static background music condition, and the control condition), data was collected through self-reported questionnaires (N = 251). Results support the proposed hypotheses and demonstrate significant three-way interactions among interactive music, shopping levels, and price consciousness. Specifically, for light or occasional shoppers, the positive impact of interactive music on perceived brand value, retail preference, and behavioral intention increases as criticality of the price factor arises. By contrast, for the heavy consumption segment, price consciousness is no longer a significant moderating variable, and the effects of interactive music on online consumers are less consistent. The present research contributes to literature by (1) addressing the deficiency of scholarly discussion on consumer behavior of distinct volume segments in an interactive e-tailing setting and (2) suggesting the potential of applying interactive music as a novel technology to the design of online retailing stores.</td>
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| JA2104      | 13:30-13:45| Understanding Determinants of Customer Behavioral Intention in Using Mobile Payment at Convenience Stores | Mei Mei Lau, Aris Y C Lam, Ronnie Cheung and Tsan Fai Leung

**Presenter:** Mei Mei Lau, The Hong Kong Polytechnic University, Hong Kong

**Abstract:** Mobile payment technology has been gradually adopted all over the world, which is seen as the trend of all our future payment. In Hong Kong, using mobile payment is very common in convenience stores, so present study identifies its drivers. A questionnaire survey was conducted to obtain the attitude from customers. A total of 150 responses were collected. Data were analyzed using multiple regression analysis, and to test a theoretical framework developed from Technology Acceptance Model. The findings showed that perceived usefulness, ease of use, compatibility, and subjective norm affect customers’ intention to use mobile payment. Managerial implications of the findings are also shown.

| JA2040      | 13:45-14:00| How Does Brand Microfilm Affect Viewers’ Perception of Brand Equity? Based on The Heuristic Theory | Hsiu-Chia Ko and Jung-Hsien Hsu

**Presenter:** Jung - Hsien Hsu, Chaoyang University of Technology, Taiwan

**Abstract:** Nowadays, although microfilms have become the main strategy for e-marketing and been valued by its potential to help brand or enterprise to build up customer-based brand equity, the effect of microfilm and how it may influence consumers’ perception of brand equity is unclear. Based on the heuristic theory and empathy theory, this study aimed to explore how the features of the brand microfilm: narrative structure, perceived aesthetics, and self-reference may influence views’ empathy. The relationship between viewers’ empathy and their perception of customer-based brand equity was also examined. The results showed that the ability that microfilm can exert viewers’ self-reference play a crucial role in evoking their empathy reaction, which in turn enhanced their perception of customer-based brand equity. Finally, some implications of the results were proposed.

| JA2050      | 14:00-14:15| Relationship Management of Customer Demand and Production Planning on E-Business of Thai Natural Cosmetics | Pasura Aungkulanon and Pongchanun Luangpaiboon

**Presenter:** Pasura Aungkulanon, Srinakharinwirot University, Thailand

**Abstract:** The higher online customers initiate promising advantage and grasping prospective opportunity for companies in Thai ecommerce market and receive more attention to the demand of cosmetic products. It is therefore useful or even necessary to give more attention to the management of production planning. For capturing customer preferences and sales prediction purposes in large domain considerable effort has directed to construct an effective model of aggregate production planning. This research examines growth of internet Thai users in general via various forecasting techniques of demand. The available data from service customer interaction are useful to predict the monthly purchase behavior of individual users. The proposed model balancing supply with demand to minimize the total production cost or maximize profitability gives high accuracy in predictions of the aggregate number of orders placed by all users each month. However, all parts of the E-Business organization such as operations, marketing including finance departments must join planning processes to ensure that they are moving in harmony with one another. Accurate forecasting and aggregate production planning are such techniques that can move all parts of the organizations in same harmony.

| JA2071-A    |            | Opportunity and Destiny of Artificial Intelligence in E-commerce: To Trust or Not to Trust |
| 14:15-14:30 | Yu-Kai Huang, Cheng-Chi Chung and Hsin-Hui Kan  
**Presenter:** Hsin-Hui Kan, National Taiwan Ocean University, Taiwan |
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<td><strong>Abstract:</strong> The chatbot service of commodity orders to buyers can be seen as the last mile of service in the electronic commerce dealing, especially through cross-border e-commerce. The chatbot service is a mode of customer service system service, and there are several issues on it: what are determinates of chatbot service quality and what the relationship between expected and perceived service quality. Thus, this paper explored the causal relationship of ecommerce on chatbot service for cross-border e-commerce. The data were collected via online questionnaire survey, and 528 respondents were returned. We applied the structural equation modeling (SEM) to construct the relationships among the chatbot service quality, satisfaction and loyalty. Then we used the importance-performance analysis (IPA) to discuss the relations between the level of customers’ expected and perceived chatbot service quality. Finally, we discuss the findings from an academic and managerial perspective and provide directions for future research.</td>
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| JA2039  
14:30-14:45 | Demand Forecasting for Online Market Stock: Case study Cleanroom Apparel  
Chanipa Nivasanon, Lakkana Ruekkasaem and Pasura Aungkulanon  
**Presenter:** Chanipa Nivasanon, Phranakorn Rajabhat University, Thailand |
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<td><strong>Abstract:</strong> This research aims to study and develop a forecasting framework for an appropriate production planning demand as well as to analyze the trend of future sales in order to plan the production in line with an increased demand by exploring time series forecasting. This paper studies data characteristics of past volumes of goods sales namely Product A B C E and L, so that an appropriate forecasting technique can be chosen. By comparing 4 forecasting methods including Moving Average, Single Exponential Smoothing, Double Exponential Smoothing, and Regression Analysis Method. Test results show that the forecasting method giving the least errors for Product A is Regression Analysis Method, with the equation ( Y=403.4-0.62x ) which gave the lowest MAPE value equals to 22.03. The economic order quantity (EOQ) of Product is 172 units with the total cost of 27,345.51 Baht. Whereas, the forecasting method for Product B is Single Exponential Smoothing Method with ( \alpha ) value equals to 0.056, which gave the lowest MAPE value at 72.20. The EOQ of Product B is 150 units with the total cost of 23,280.66 Baht. The forecasting method for Product C is Regression Analysis Method, with the equation ( Y=417.4-0.82x ) which gave the lowest MAPE value equals to 28.1. The EOQ of Product C is 193 units with the total cost of 24,953.52 Baht. The forecasting method for Product E is Moving Average ( N=3 ), which gave the lowest MAPE value equals to 31.5. The EOQ of Product E is 336 units with the total cost of 14,109.57 Baht. Lastly, the most appropriate forecasting method for Product E is Regression Analysis Method, with the equation ( Y=1092-3.88x ) which gave the lowest MAPE value equals to 47. The EOQ of Product E is 1844 units with the total cost of 6,639.97 Baht.</td>
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| JA2133  
14:45-15:00 | The Influence of Shopping Values on Consumers’ Behavioral on M-shopping  
Wen-Kuo Chen,Pei-Chu Hung,Szu-Ting Liu,Pi-Ying Hsu  
**Presenter:** Wen-Kuo Chen, Chaoyang University of Technology, Taiwan |
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<td><strong>Abstract:</strong> As the popularity of m-commerce services has grown, many people rely on mobile devices, and want to make the shopping experience easier and more pleasurable via using mobile devices. In addition, different channel attracted different consumer groups, and different consumer groups have different decision-making mode. Therefore, this study integrates mobile page quality (security, download delay, visual appeal, and navigability) and consciousness (brand and price) via hedonic and utilitarian values to explore consumers’ repurchase intention of mobile shopping APPs. And this study attempts to understand user's personal characteristics and frequency of using mobile shopping APPs. 302 participants were recruited to conduct this study. Results bring out some suggestions for future research and provide the attractive layout</td>
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### The Impact of Electronic Word-of-Mouth on Young Consumers’ Purchase Intention in Hong Kong

**Aris Lam, Mei Mei Lau, Calvin Cheng and Ming Yan Wong**

**Presenter:** Aris Lam, Hong Kong Polytechnic University, Hong Kong

**Abstract:** This study focuses on the impact of electronic word-of-mouth on young consumers’ purchase intention in cosmetic industry in Hong Kong. A research model was constructed to investigate the impact of electronic word-of-mouth on purchase intention of consumers, influenced by social media browsing intention and mediated by information credibility. A survey was conducted with a sample of 173 respondents and a quantitative approach was used to validate the research model. The research results concluded that electronic word-of-mouth has a positive influence on information credibility, which in turn predicts young consumers’ purchase intention.

### How Website Quality, Service Quality, Perceived Risk and Customer Satisfaction Affects Repurchase Intention? A Case of Taobao Online Shopping

**Hsin-Fan Chen and Sheng-Hung Chen**

**Presenter:** Hsin-Fan Chen, Chaoyang University of Technology, Taiwan

**Abstract:** Using the questionnaire to collect the data on 252 customers by expressing their willingness to repurchase goods via Taobao website, we received their opinion and evaluation from the personal interview. Our results indicate the following findings: 1) The quality of the website on the shopping platform has a negative impact on customer’s perceived risk. 2) The quality of online shopping website poses a positive effect on customer's satisfaction. 3) The quality of service provided within shopping website has a negative impact on perceived risk. 4) The quality of service on the shopping website platform has a positive impact on customer satisfaction. 5) The perceived risk on the shopping website has a negative impact on customer repurchase intention. 6) Customer satisfaction with the shopping website has a positive impact on customer repurchase intention.

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**Opening**

**Tourism, Growth and Business Cycles**

*The time slots assigned here are only tentative. Presenters are recommended to stay for the whole session in case of any absence.

**After the session, there will be a group photo for all presenters in this session.*
| Speech JA1021 13:30-13:45 | Wei-Bin Zhang  
**Presenter:** Wei-Bin Zhang, Ritsumeikan Asia Pacific University, Japan  
**Abstract:** This study is concerned with business cycles in the small-open economic growth with endogenous education and tourism proposed by Zhang [1]. The model is based on Solow’s one-sector and Uzawa’s two-sector growth models, the Uzawa-Lucas two-sector growth model, some growth models for small open economies, the literature of growth and tourism. The model treats human capital growth, wealth accumulation and tourism as driving forces of growth. The small-open economy consists of one industrial sector, one service sector, and one education sector. The model integrates the main ideas in the literature by applying Zhang’s concept of disposable income and utility function. This paper generalizes the model by allowing all time-independent coefficients to be time-dependent. The generalization makes it possible to examine impact of any time-dependent shocks such as seasonable tourism and random changes in interest rates in global changes. |
| --- | --- |
| JA2051 13:45-14:00 | Factors Affecting Successful Crowdfunding  
**Hsien-Da Lee**  
**Presenter:** Hsien-Da Lee, Meiho University, Taiwan  
**Abstract:** Crowdfunding has been used as one of the effective ways for entrepreneurs to raise funding especially in creative industries. Individuals as well as organizations are paying more attentions to the emergence of new crowdfunding platforms. This research aims at discovering the success factors for crowdfunding projects through in-depth interviews with both experienced professors and college student who actively participated in various crowdfunding projects. The research found that (1). Platform (2) project plan (3) rewards (4) video can be viewed as critical factors that may affect. In addition, the paper provides practical advice on crowdfunding best practices. The best practices outline help startups to achieve funding goals and encourage funders to actively participate in crowdfunding projects. |
| JA2159 14:00-14:15 | ParkPal: A Park Sharing and Crowdsourcing Park Monitoring Mobile Application  
**Mary Jane C. Samonte, Eric B. Blancaflor, Patrick Eugene S. Pascual, Bryan Angelo U. Yaneza, Jay Mark T. Butalon**  
**Presenter:** Bryan Angelo U. Yaneza, Mapúa University, Philippines  
**Abstract:** Whenever a car owner drives to a destination, the first thing to consider is parking. Due to the lack of parking facilities, car owners are forced to park along the secondary or sometimes main roads to go about their business. With smart phones increasingly being integrated into our lives, it is not a new idea to utilize phones as a tool to help in solving societal problems such as the lack of available parking space in the metro. The project aims to solve this problem by developing a mobile application to create collaborative online community marketplace with sharing economy concept by bringing together two crowds: people who are looking for parking slots and business-minded persons who wants to make profit out of his/her unutilized parking lot/space. Alongside, ParkPal also offers the ability to monitor the density of public commercial spaces through the implicit collection of data contributed by ParkPal users generated from Activity Recognition API and Geofencing API. |
| JA3008 14:15-14:30 | Volatility Targeting Strategy in S&P500  
**Xuning Hu**  
**Presenter:** Xuning Hu, Oregon Episcopal School, USA  
**Abstract:** This project used volatility targeting strategy and was constructed and processed on Python to design an optimal strategy that maximized the rate of return of the portfolios. According to Romain Perchet [2015], volatility targeting serves as a strategy that stabilizes between a risky asset and risk-free asset to keep the volatility at a constant level. The goal of which was achieved by forecasting the future return rate of S&P500 stock market based on its return rate in the past, using two approaches: GARCH model and standard deviation, namely,
Equally Weighted Averages, with the volatility target of 10%. In the end, Sharpe Ratio, which was the average return rate of risk-free asset per unit of volatility, was used to calculate volatility, which proved that GARCH model was a better approach in volatility targeting strategy than standard deviation, due to volatility clustering.

| JA3009 | Valuation with Discounted Cash Flow in Real Estate Industry the Case of Longfor  
Suihan Zhou  
**Presenter:** Suihan Zhou, Lancaster University, UK  
**Abstract:** As the rising in the price of house and apartment, people pay more attention on real estate industry. In this report, we focus on the application of the valuation with discounted cash flow, choosing a company, Longfor, with the rich regional features. |
| JA0009 | The Effect of Tax Planning on Financial Performance in the Stock Exchange of Thailand  
Sathaya Thanjunpong and Thatphong Awirothananon  
**Presenter:** Sathaya Thanjunpong, Maejo University, Thailand  
**Abstract:** This paper aims to examine the association of tax planning (hereafter called TP) on financial performance (hereafter called FP) in the Stock Exchange of Thailand during the year 2014-2016. The sample size, which excludes the financial sector, consists of 873 firm-years. The TP is measured by effective tax rate (hereafter called ETR) and the ratio of tax expenses to total assets (hereafter called TAX/ASSET), while the FP is measured by return on equity. This paper finds that the TP has both effects on the FP. The effect is positive when measured by ETR, while it is negative if measurement is TAX/ASSET. Regarding to control variables, the BIG4 auditors have positive effects on the FP. The results further indicate that the relationship between the FP and TP (measured by TAX/ASSET) is significantly negative for non-BIG4 auditors. The relationship is thus weak and insignificant for BIG4 auditors. The results are, therefore, useful to provide guideline for listed companies in managing capital and resources more efficiently. |
| JA3004 | Comparing First-price and Second-price Sealed Bid Auction  
Xin Yang Zou  
**Presenter:** Xin Yang Zou, The Affiliated Foreign Language School of SCNU, China  
**Abstract:** In recent decades, auction became more and more familiar in peoples daily life. In this paper, we study two types of auction formats that are commonly used in the real practice: the first-price sealed bid auction and the second-price sealed bid auction. We use a private value paradigm, which assumes that the bidders’ valuations for the object is independently drawn from a commonly known distribution. Using a gametheoretical framework, we find that the optimal bidding strategy in the second-price sealed bid auction is to bid one’s private value, while that in the first-price sealed bid auction is to bid lower than one’s private value. However, we find that these two auctions will generate the same expected revenue. |
JA2007  Study on Online Early Childhood Education and Care Service based on the E-business
Fei Hou, Zongzhen Jin and Qi Liu
Presenter: Fei Hou, China National Institute of Standardization, China

Abstract: Online early childhood education and care service have been developing unprecedentedly fast recently, while the whole chain of the service is varied and multifarious in the e-business times. This paper optimizes and analyzes the service chain regarding the service delivery with all aspects, including all the service elements and the processes. The result shows that, on one hand, the key steps of the service chain consists of service information provision,
| JA2089 | Needs and characteristics analysis, service plan development, service agreement, payment, service delivery, outcome evaluation, and communication and feedback. On the other hand, the key elements of the service chain include service provider, staff, service location, service facility and learning material. |
| Effects of Flipped Classroom Approach using Gooru Learning Management System on Students’ Physics Achievement  
Salvador John M. Magalong and Brando C. Palomar  
**Presenter:** Brando C. Palomar, Philippine Normal University, Philippines |
| **Abstract:** Due to a dearth on research studies on Flipped Classroom (FC) approach using Learning Management System (LMS) in the Philippines, especially on its effectiveness on students’ achievement, this research fills in the need for one. This study is mainly focused on gathering empirical measurements on the effects of employing FC approach using Gooru Learning Management System (GLMS) on the students’ achievement in Physics. Using an FC model via LMS on learning concepts and developing self-regulated skills are prominently influenced by the principles of constructivism and connectivism. In an FC model, a free online LMS, Gooru, was used as means for the researchers to facilitate in creating, delivering and conducting learning contents, while simultaneously monitoring learner’s participation and assessing the performance through mobile learning device and/or personal computer. This study determined (1) if the performance of a group of students improved using FC approach via GLMS, and (2) if there is a significant difference between the pretest and posttest mean scores on students’ Physics achievement. Results suggested that employing an FC model with the utilization of Gooru LMS is claimed to be a potential method in increasing students' achievement in Physics. |
| JA2008 | Analysis on the Quality Factors of B2C Cross-Border E-Commerce Service  
Fei Hou, Yonghong Cheng and Lingxia Cao  
**Presenter:** Fei Hou, China National Institute of Standardization, China |
| **Abstract:** B2C cross-border e-commerce service is characterized by intangibles, the simultaneous occurrence of production and consumption, strong interaction and many other distinctive features, which combine the characteristics of E-commerce activities and cross-border service activities with more complicated quality characteristics. The result shows that the number of quality factors of the service provider’s service capacity, after-sales service, delivery and payment are the highest ones, but the factors such as the information provision, the purchase intention and the purchase order cannot be neglected. |
| JA2011 | Construction and Validation of a 6-D Assessment Model for K-12 Teachers’ ICT Ability  
Ni Zhang and Qingtang Liu  
**Presenter:** Ni Zhang, Central China Normal University, China |
| **Abstract:** Teachers of today and the future are expected to have the ICT skills necessary for improving their teaching. On the basis of existing typical frameworks, this study constructs a new assessment model for K-12 teachers’ ICT ability, with 6 domains including pedagogical knowledge and skills, ICT ability of teaching design, ICT ability of teaching implementation, ICT ability of teaching management, ICT ability of teaching evaluation, and ICT ability of teaching reflection. 319 K-12 teachers from China participated in an online survey. The results indicate that the reliability and validity of the new assessment model is fit for the assessment of K-12 teachers’ ICT ability. The correlations of different paths among 6 domains indicate that one is the influence factor to each other. According to the model, K-12 teachers’ ability of pedagogy is the highest, whereas their evaluation was the lowest. |
| JA2012 | Meta-analysis of ECM-ISC model: Evidence from Chinese Literature  
Xikai Tang, Xiao Han and Jie Li  
**Presenter:** Xikai Tang, University of Electronic Science and Technology of China, China |
### Abstract:
Since the IS continuance model based on the expectation confirmation theory was put forward, it has been widely used in studies designed to predict continuance intention of users. The conclusions of these studies, however, are sometimes inconsistent with or contradictory to the original model. Therefore, it is necessary to objectively evaluate the stability of variable relationships under the model. In this paper, meta-analysis was used as the research method to study the data about sample sizes and correlation coefficients extracted from 108 papers. Descriptive statistics and calculation of effect sizes and fail-safe number were made. The results showed that the effect sizes and the fail-safe numbers of the five variable groups in the model all passed the stability test, although the “perceived usefulness-continuance intention” group and the “perceived usefulness- satisfaction” group yielded low values of these two measures. The results were analyzed and recommendations were given.

### Study on the Influencing Factors of Online Learning Effect Based on Decision Tree and Recursive Feature Elimination
Yanmei Chai, Chenfang Lei and Chuantao Yin
**Presenter:** Yanmei Chai, Central University of Finance and Economics, China;

**Abstract:** With the popularity of online learning, more and more researchers have attached great importance to the relationship between learning effect and influence factors in the online courses. In literature works, Logistic Stepwise Regression algorithm is the most used method. But this method has limitation in run time especially when the dimension of data is large. Besides that, it can’t rank the importance of factors. Aiming at the above shortcomings, this paper proposes a novel approach to analyze the influencing factors of online learning, which is based on the combination of decision tree and recursive feature elimination. Firstly, the feature sorting algorithm is based on decision tree to conduct the preliminary screening, which is to form a candidate feature set. Then, recursive feature elimination is used to rank the candidate features by their importance. At this stage, Logistic Regression (LR), Support Vector Machine (SVM) and Decision Tree (DT) models are used separately to obtain each collating sequence of importance. By averaging these collating sequences, the final importance ranking of candidate features is achieved. Finally, an experiment is carried out on the Open University Learning Analytics dataset, and the results show that learning behavior has an important impact on the learning effect. Positive learning behaviors can lead to better learning effect.

### The Design Guideline for Dyslexics-friendly Chinese ATM interface
Ming-Sheng Shih, Jo-Han Chang and Tung-Yi Cheng
**Presenter:** Jo-Han Chang, National Taipei University of Technology, Taiwan

**Abstract:** This study explores the difficulties for people with dyslexia to use the Chinese ATM interface and proposes improvement guidelines. In the experiment results of operating the existing Chinese ATM interfaces, the most common problems found are: (1) the options have low attractiveness, (2) there are too much information in the options, (3) the text is too dense, and (4) unable to understand the instruction of the buttons. After conducting an assessment on the revised friendly interface designed by this study, the following results are obtained: (1) when designing, the operating distance needs to be defined so the font size suitable for dyslexics can more accurately determined, (2) when designing the interface, use light color for background and dark color for foreground, and (3) when doing the related layouts, a layered approach can be used to reduce the number of options as well as the search load.

### Dissatisfaction on crowdsourcing platform: two-factor theory approach
Barashev Andrey and Guoxin Li
**Presenter:** Barashev Andrey, Harbin Institute of Technology, China

**Abstract:** The current paper employs Two-factor theory and semi-structured interviews methodology in order to investigate factors influencing worker’s dissatisfaction level on the crowdsourcing platform. Dissatisfaction might lead to lower levels of engagement and effort.
exposed on the crowdsourcing platform thus leading to diminishing working results. The results of the current study show that we can delineate platform features that would be attributed to the theoretically proposed hygiene factors of the pay plan, working conditions, status, job security, benefits as well as policies and supervisory practices influencing levels of dissatisfaction on a crowdsourcing platform. In addition, this study shows that pay-plan, working conditions, job security, policies, and supervisory practices are indeed of the most important for the workers. Hence, improving the above-said features is a good way for lowering workers’ level of dissatisfaction. A clear understanding of what influence workers could help work providers and platform managers to implement new features and rules so as to discard the diminishing influence of dissatisfaction.

Effectiveness of Mobile Learning in College English Vocabulary Teaching under Multimodel Environment
Xiao Jing and Wang Jing
**Presenter:** Xiao Jing, Zhuhai College Jilin University, China

**Abstract:** Vocabulary is one of the three elements that constitute language. Words carry meaning and sentences are made up with different classes of words. Thus, in foreign language learning, vocabulary acquisition is crucial. Thanks to the mobile communications technology, mobile learning has developed into a new learning-mode. This paper investigates the effectiveness of applying mobile learning to college English vocabulary teaching in China. A fourteen-week’s experiment proves combining mobile learning with conventional teaching has enlarged students’ vocabulary effectively and their level of expression. The interviews reveal first-year college students show great enthusiasm in mobile vocabulary learning and teachers’ guidance and supervision are needed during the process.

Happy Expatriates Have Higher Cross-cultural Adjustment and Retention? A Study of Chinese Expatriates in Thailand
Chiang-Kuo Tu, Chun-Shuo Chen and Kelvin C. K. Lam
**Presenter:** Chiang-Kuo Tu, Huaiyin Institute of Technology, China

**Abstract:** The phenomenon of significant increase of Chinese expatriates has drawn attention of researchers to study on this population. Past research showed that cross-cultural adjustment (CCA) positively affected work outcome and expatriate retention (ER). Therefore, it is a critical issue for management practice and academic research to unfold expatriates’ psychological mechanism of adjustment process, for enhancing expatriates’ CCA and ER. This study adopts Fredrickson’s Broaden-and-Build Theory (BBT) of Positive Emotions [1] to develop and examine the hypothesized model. The results of this study indicate that expatriates who perceived more organizational support (POS) could feel more subjective well-being (SWB), perform better CCA, and result in higher ER. Expatriates who perceiving higher organizational performance (POP) couldn’t moderate the positive effect of SWB on CCA. The implications for research and practice were discussed.

Challenges in the implementation of e-government for public institutions in Peru
Hesmeralda Rojas Enriquez, Ronald Alberto Renteria Ayquipa, Walter Jhon Huayllani Aguirre, Zenón Humberto Arévalo Mezarina, Manuel Jesús Ibarra Cabrera
**Presenter:** Ronald Alberto Renteria Ayquipa

**Abstract:** This article presents a study on the implementation of electronic government in Peru, for the issuance of electronic payment receipts. This is a study on the case of the Regional Hospital Guillermo Diaz de la Vega, state entity in which such implementation was executed and the challenges faced by the institution in order to carry out the execution of the project are addressed, such as: Economic aspect, network coverage, technological infrastructure and software development, digital literacy, variations of ballot formats and electronic invoices - standard UBL (Universal Business Language) protocols and information security.
The Mechanism of Distance Vocational Education Affecting Industrial Technological Progress in Philippines
Shubing Qiu and Rong Fan
Presenter: Shubing Qiu, Anhui Polytechnic University, China; Angeles university foundation, Philippines

Abstract: In order to study the mechanism of distance vocational education affecting industrial technological progress in Philippines based on the status of macroeconomic development in Philippines. Education is an important driving force for the development of industries, and distance vocational education plays an important role to affect the industrial technological progress. The results show that: the mechanism of distance vocational education affecting industrial technological progress in Philippines is mainly through the realization of “Affecting capital flows, Affecting labor skills, Promoting the adjustment of industrial structure effectively, Optimizing the supply structure of human resources and increase labor productivity”, and then to put forward the strategy of the distance vocational education developing in Philippines in the view of TV blank band market. The results of this study have important theoretical guiding significance to effectively stimulate the industrial technological progress in Philippines.

Using Software to Visualize and Facilitate the Teaching of Vowels for Tibetan English Majors
Qian Zhou
Presenter: Qian Zhou, Northwest Minzu University, China

Abstract: As the differences among the English vowels are very subtle, vowels are always difficult to teach. Under the guidance of Automatic Selective Perception Model (ASP), this article has studied how to use modern technology to visualize and facilitate the teaching of vowels for Tibetan English majors and to improve the teaching results.

Listeners’ List

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<tr>
<th>Listener 1</th>
<th>Yoo Jaewon</th>
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Upcoming Conferences

2019 2nd International Conference on E-business and Business Engineering (ICEBB 2019), which will be held during April 27-29, 2019 in Prague, Czech Republic

Publication

Accepted papers will be recommended to be published in International Journal of e-Education, e-Business, e-Management and e-Learning (IJEEEE), (ISSN: 2010-3654), which will be indexed by Engineering & Technology Digital Library, Google Scholar, Electronic Journals Library, QUALIS, ProQuest, EI (INSPEC, IET).
Topics

Topics of interest for submission include, but are not limited to:

Inter-organizational systems
Future work environments for e-Business
Business Process Integration
E-Work
Inter-workflow
Service process modeling
Service quality assurance
Service design methodology
Service optimization
Service composition
Service QoS optimization
Internet Finance/Manufacturing/Farm
Ecommerce services and infrastructure
Monitoring and supporting services for Ecommerce
Ecommerce laws and standards
Blockchain Security models

Submission Methods

1. Email: icebb@iedrc.org

Important Dates

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<td>Conference Date</td>
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www.icebb.org

2019 3rd International Conference on E-commerce, E-Business and E-Government (ICEEG 2019) will be held from June 18 to 21, 2019, in INSEEC Business School, Lyon Campus, France. ICEEG 2019 is organized by IEDRC and co-organized by INSEEC Business School.

Publication

The accepted and registered papers will be published in conference proceedings by ACM, which will be archived in the ACM Digital Library, and sent to be indexed by EI Compendex and Scopus and submitted to be reviewed by Thomson Reuters Conference Proceedings Citation Index (ISI Web of Science).

Topics

Topics of interest for submission include, but are not limited to:
- Plant Intellectual Property
- Privacy & Data Security
- Private Placements & PIPEs
- Research on Data Mining Algorithm
- Risk management
- Simulation of Electronic Finance Specialty
- Social Media
- Structured Finance & Securitization
- Structured Products
- Digital markets and marketplaces
- Digital wallets and peer-to-peer payments
- Economic Development
- Economic Methodology
- Economic Policy
- Economic Systems
- Electronic Finance Information Mining
- Emerging Companies & Venture Capital
- Entrepreneurship

Submission Methods

1. Email: iceeg@iedrc.net
2. Electronic Submission System: http://confsys.iconf.org/submission/iceeg2019

Important Dates

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<td>Conference Dates</td>
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www.iceeg.org

2019 The 3rd International Conference on E-Education, E-Business and E-Technology (ICEBT 2019) will be held in Madrid, Spain from August 02-04, 2019. ICEBT aims to bring together researchers, scientists, engineers, and scholar students to exchange and share their experiences, new ideas, and research results about all aspects of E-Education, E-Business and E-Technology, and discuss the practical challenges encountered and the solutions adopted.

Publication

Accepted papers will be published in the International Conference Proceedings and sent to be indexed by EI Compendex and Scopus.
# Topics

Topics of interest for submission include, but are not limited to:

- Innovative business models
- Enterprise application integration
- Business process re-engineering
- Virtual enterprises and virtual markets
- Supply, demand, and value chains
- Virtual organizations and coalitions
- Customer relationship management
- E-Collaboration and e-Services
- Inter-organizational systems
- Future work environments for e-Business
- Business process integration
- E-Work
- Inter-workflow
- Mobile business
- E-Commerce
- Business-to-business e-commerce
- Business-to-consumer e-commerce
- E-government, policy and law
- Business/Enterprise Architectures
- Mobile and pervasive commerce
- Electronic Markets and Multiagent Systems
- Semantic Web ontologies, rules and services

## Submission Methods

1. Email: icebt@iedrc.net

## Important Dates

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[www.icebt.org](http://www.icebt.org)

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We would like to invite you to **2019 International Conference on Mathematics, Science and Technology Teaching and Learning (ICMSTTL 2019)**, which will be held in **Central Queensland University Australia - Sydney Campus**, Australia from **June 28-30, 2019**. The conference is organized by IEDRC and co-organized by Central Queensland University Australia.

## Publication

All accepted papers by ICMSTTL 2019 will be published in conference proceedings, which will be indexed by EI Compendex and Scopus.

## Topics
Topics of interest for submission include, but are not limited to:

- Good practices in MSL teaching and learning
- Innovative course design and delivery in MSL teaching and learning
- Enhancing teaching and learning through digital technologies
- Digital technologies and pedagogical adjustment
- Improving learning through wireless, mobile and ubiquitous
- Collaborative learning through tailored eLearning platform
- Theory and methodology in e-Assessment
- Effective articulation of mathematics education from primary to/via secondary to tertiary level
- MSL education in a multilingual environment
- Connections among mathematics, science and technology teaching and learning
- Regional and international comparative studies of MSL education
- Professional development for MSL teachers
- Gender equity in MSL education
- MSL education in regional and remote regions
- Trend analysis in MSL education in low socioeconomic communities

**Submission Methods**

3. Email: msttl@iedrc.net

**Important Dates**

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<td>June 28-30, 2019</td>
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**One-day Visit-Tokyo**

Route: Rihga Royal Hotel Tokyo (东京丽嘉皇家酒店) - Kokyo Gaien National Garden（皇居外苑）, Nijubashi Bridges (二重桥) - Ueno Park (上野公园), Tokyo National Museum (东京国立博物馆) - Senso-ji Temple (浅草寺), Shin Nakamise Shopping Street (仲见通) - Odaiba Seaside Park (台场海滨公园) - Tokyo Tower (东京塔)

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<td>Leaving from Hotel</td>
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<td>(Note: If you didn’t show up until 9:00, the bus will leave and the tour fee won’t be refunded)</td>
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<tr>
<td>9:30-10:30</td>
<td>Kokyo Gaien National Garden, Nijubashi Bridges</td>
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<td>11:00-12:40</td>
<td>Ueno Park, Tokyo National Museum</td>
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Note: The one day visit will be ended at the Tokyo Tower around 17:30. If you want to visit the Tokyo Tower, please prepare the tickets for yourself.

9:30-10:30 Kokyo Gaien National Garden (皇居外苑)

Nijubashi Bridges (二重桥)
11:00-12:40 Ueno Park（上野公园）

（Ueno Park during the cherry blossom season）

Tokyo National Museum (东京国立博物馆)
(Displays inside the Honkan)
14:00-15:00 Senso-ji Temple (浅草寺)
Tips: The Nakamise shopping street stretches over approximately 250 meters from Kaminarimon to the main grounds of Sensoji Temple. It is lined by more than 50 shops, which offer local specialties and the usual array of tourist souvenirs.

15:40-16:40 Odaiba Seaside Park（台场海滨公园）
17:30 Tokyo Tower

Note: This is the last station. If you want to visit the Tokyo Tower, please prepare the tickets for yourself. Admission: 900 yen (main deck only); 2800 yen (both decks) Hours: 9:00 to 23:00 (entry until 22:30)