

2017 IEDRC HONG KONG CONFERENCE ABSTRACT

2017 International Conference on Software and e-Business
(ICSEB 2017)

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Conference Venue

The Charterhouse Causeway Bay Hotel Hong Kong

www.charterhouse.com

Address: 209 - 219 Wanchai Road, Wanchai, Hong Kong

Telephone: 852 2892 3350 Fax: 2892 3303

Email: hd@charterhouse.com

With the convenient location, comprehensive facilities, comfortable environment and vibrant lifestyles, The Charterhouse Causeway Bay Hotel Hong Kong always a classic hotel make it a favourite choice for visitors to stay, no matter for business or vacation. Considering the needs of our business visitors, our hotel shuttle will take you to Hong Kong Convention and exhibition Centre during trade fair and event periods in just a few minutes. For our visitors exploring different beauties of Hong Kong, splendid shopping malls like Time Square, SOGO, Hysan Place and easy transportation system like Causeway Bay MTR are a few steps from our hotel which will never disappoint you. The Gazebo Restaurant, Champs Bar, Harry's Bar and Lounge and Fitness Room provide you the relaxing places to enjoy your life and escape from the hustle and speed of the city of the day.



The Charterhouse Causeway Bay Hotel Hong Kong located in the heart of Hong Kong Island near Causeway Bay and Wanchai allows you easy access to all areas of Hong Kong by various means of transport such as the MTR subway, Airport Express railway, buses, taxis and ferries, all of which are reachable within a short distance.

Introductions for Publications

All accepted papers for the Birmingham conferences will be published in those proceeding/journals below.

2017 International Conference on Software and e-Business (ICSEB 2017)



International Conference Proceedings Series by ACM.

Indexing: 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).

ISBN: 978-1-4503-5488-2



Some papers will be recommended to be published on international journal JSW (Journal of Software; ISSN 1796-217X). The basic information about the journal is as below:

ISSN: 1796-217X

Frequency: Monthly

Abstracting/ Indexing: DBLP, EBSCO, DOAJ, ProQuest, INSPEC, ULRICH's Periodicals Directory, WorldCat, CNKI,etc

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):

Keynote Speech: 40 Minutes of Presentation, including Q&A
Regular Oral Presentation: about 15 Minutes of Presentation and 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, portrait direction
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 end of each session on Dec. 29, 2017.

Dress Code

Please wear formal clothes or national representative clothing.

Introductions for Keynote Speakers



Prof. Yulin Wang
Wuhan University, China

Prof. Yulin Wang is a full professor and PhD supervisor in International School of Software, Wuhan University, China. He got PhD degree in 2005 in Queen Mary, University of London, UK. Before that, he has worked in high-tech industry for more than ten years. He has involved many key projects, and hold 8 patents. He got his master and bachelor degree in 1990 and 1987 respectively from Xi-Dian University, and Huazhong University of Science and Technology(HUST), both in China. His research interests include digital rights management, digital watermarking, multimedia and network security, and signal processing. In recently 10 years, Prof. Wang has published as first author 3 books, 40 conference papers and 45 journal papers, including in IEEE Transactions and IEE proceedings and Elsevier Journals. Prof. Wang served as editor-in-chief for International Journal of Advances in Multimedia in 2010. He served as reviewer for many journals, including IEEE Transactions on Image Processing, IEEE Signal Processing Letters, Elsevier Journal of Information Sciences. He served as reviewer for many research funds, including National High Technology Research and Development Program of China (‘863’ project). Prof. Wang was the external PhD adviser of Dublin City University, Ireland during 2008-2010. He was the keynote speakers in many international conferences. He has been listed in Marcus ‘who’s who in the world’ since 2008.

Speech Title: Image Authentication and Tamper Localization

Abstract: Image authentication can be used in many fields, including e-government, e-commerce, national security, news pictures, court evidence, medical image, engineering design, and so on. Since some content-preserving manipulations, such as JPEG compression, contrast enhancement, and brightness adjustment, are often acceptable—or even desired—in practical application, an authentication method needs to be able to distinguish them from malicious tampering, such as removal, addition, and modification of objects. Therefore, the traditional hash-based authentication is not suitable for the application. As for the semi-fragile watermarking technique, it meets the requirements of the above application at the expense of severely damaging image fidelity.

In this talk, we propose a hybrid authentication technique based on what we call fragile hash value. The technique can blindly detect and localize malicious tampering, while maintaining reasonable tolerance to conventional content-preserving manipulations. The hash value is derived from the relative difference between each pair of the selected DCT AC coefficient in a central block and its counterpart which is estimated by the DC values of the center block and its adjacent blocks. In order to maintain the relative difference relationship when the image undergoes legitimate processing, we make a pre-compensation for the AC coefficients. The technique is superior to semi-fragile techniques, especially in image fidelity, tolerance range of legitimate processing, and/or the ability to detect and localize the tampered area. Due to its low computational cost, the algorithm can be used in real-time image or video frame authentication.



Prof. Shuanghua Yang
Southern University of Science and Technology, China

Prof. Shuang-Hua Yang is an Associate Dean of Graduate School and a chair professor in Computer Science at Southern University of Science and Technology (SUSTech). He spent over 20 years in the UK Higher Education Institutions before joining SUSTech. He joined Loughborough University in 1997 as a research assistant, and progressing to a research fellow in 1999, a lecturer in 2000, a senior lecturer in 2003, a professor in 2006, and Head of Department of Computer Science in 2014. His educational history originated in China where he received a BSc in 1983, an MSc in 1986, both from the Petroleum University and a PhD in 1991 from Zhejiang University. He was awarded a Doctor of Science (DSc) degree, a higher doctorate degree, in 2014 from Loughborough University to recognize his scientific achievement in his academic career. He is a fellow of the Institute of Engineering and Technology (IET) since 2014, a fellow of the Institute of Measurement and Control since 2005, and a senior member of IEEE since 2003. He was selected as a national Thousand Talent Scheme expert in China in 2016. He was awarded the 2010 Honeywell Prize by the Institute of Measurement and Control in the UK in recognition of his contribution to home automation research. He was the author of four research monographs and over 200 academic journal papers. His research interests focus on Internet of Things, Cyber-Physical System, Wireless Sensor networks and Safety Critical Systems.

Speech Title: Smart building energy consumption control and audit supported by wireless technologies

Abstract: With the recent rapid advance of enabling smart building technologies (e.g. Zigbee, Zwave, 6LowPAN etc.), domestic and commercial building energy management has been considering as one of viable solutions to achieve sustainable energy efficiency without compromising building users' comfort. Despite of its great expectation, the development and adoption of this type of energy management systems within home and commercial environments has been slow. This talk identifies the possible causes for the slow progress and devises a new flexible architecture to resolve these identified challenges. The proposed architecture consists of physical layer, integration layer, intelligent layer and application layer, and has been implemented under the support of wireless technologies. Several intelligent energy conservation strategies, including early start and stop, and regularly energy auditing, have been proposed. The field trial has been conducted in five homes and one office building for a two year period in the UK to evaluate its effectiveness by comparing the energy consumption before and after deploying the developed energy saving strategies. The trial result shows that the energy wastage was reduced by from 5% to 25% in space heating and from 10% to 60% in appliance, and the energy audit can clearly identify the energy wastage areas in a commercial building.



Prof Lili Yang
Loughborough University, UK

Professor of Southern University of Science and Technology; Visiting professor of North-eastern University in China; visiting professor of China University of Petroleum

Prof. Dr Lili Yang is a Reader in the School of Business and Economics at Loughborough University, UK. She has conducted a significant amount of research both independently and working in team. As the principal investigator she has led more than 12 projects and carried out 4 projects as co-investigator, which were funded by European Commission, EPSRC, DTI, Natural Environment Research Council, British Council, British Royal Society and industries such as BAE Systems etc. The total budget has reached to over £4 million. She has published over 85 journal and conference papers, produced some books. Her recent publications appear in the top journals such as Information Systems Research, European Journal of Operational Research, Technological Forecasting and Social Changes, to be named. She was invited by the UK Cabinet Office to give a presentation to their staff in London. She talked her research outcomes by invited on BBC Radio. Her research has generated great impact to the research community in the whole world.

Speech Title: Enhancement of People's Water Consumption Behaviour

Abstract: Conservation of water has a high priority around the globe. Study on water management and conservation becomes an important research problem. To meet the growing demand of water resources, novel and interdisciplinary solutions have to be in place. There are two main categories of water saving measures to reduce water use: technical measures include network improvement, repair leaks, developing water-efficient appliances; non-technical measures cover information, education, awareness that may change people's water consumptive behaviour.

This talk presents the non-technical measures resulted in our recently completed European H2020 project – ISS-EWATUS (issewatus.eu), a large scale project on water management. The highlight of the talk focuses on Internet of Things' (IoT) support to the water resource management and the strategies implemented under the IoT infrastructure. In detail, the following aspects will be presented in the talk: an IoT system for households giving consumer precise information on their water consumption on a single water-using appliance scale; the structure of the global IoT system and its features; water consumption prediction based on a time series model established from the data collected wirelessly from each water-using appliance with consideration of household structure and other variables such as the model inputs; decision support system for households generating practical advices regarding water-saving activities and classifying water consumption behaviour for individuals.



Assoc. Prof. Simon James Fong
University of Macau, Macau

Simon Fong graduated from La Trobe University, Australia, with a 1st Class Honours BEng. Computer Systems degree and a PhD. Computer Science degree in 1993 and 1998 respectively. Simon is now working as an Associate Professor at the Computer and Information Science Department of the University of Macau. He is a co-founder of the Data Analytics and Collaborative Computing Research Group in the Faculty of Science and Technology. Prior to his academic career, Simon took up various managerial and technical posts, such as systems engineer, IT consultant and e-commerce director in Australia and Asia. Dr. Fong has published over 373 international conference and peer-reviewed journal papers, mostly in the areas of data mining, data stream mining, big data analytics, meta-heuristics optimization algorithms, and their applications. He serves on the editorial boards of the Journal of Network and Computer Applications of Elsevier, IEEE IT Professional Magazine, and various special issues of SCIE-indexed journals.

Speech Title: Big Data Mining for FOG Computing: from Algorithms to Applications

Abstract: FOG computing is a relatively new concept extending from cloud computing, which advocates and pushes the data analytics to the edge of a sensor network as far as possible. As a result the data analytics workload which is supposed to be done at the central cloud server or its core data analytics server is delegated to the cloud nodes. It helps avoid performance bottleneck and data analytics latency at the central server of a cloud. In the center of an IoT network environment that is where all the sensed data are converged to, usually some big database in a distributed processing platform such as Apache Hadoop/Spark is storing all these streaming data. The size of big data that is supposed to be data mined, potentially amounts to very huge or even infinity. However when FOG computing is deployed, the edge nodes are responsible in data analysis including learning and recognizing patterns from the incoming data streams. Hence it is crucial to find appropriate data mining algorithm(s) which is lightweight in operation and accurate in predictive performance. In this talk, the suitability of data mining and data stream mining algorithms will be discussed pertaining to FOG computing environment. Specifically, non-black-box machine learning models such as decision trees are looked into, with a quick pre-processing function implemented by correlation-based feature selection algorithm coupled with traditional search methods and particle swarm optimization search method. Other bio-inspired metaheuristics search methods are possible too, to be integrated in data stream pre-processing. Equipped with the data stream mining algorithms and swarm feature selection as power-horse, we will discuss some typical IoT applications that can be configured as FOG computing platform, including emergency services and large scale smart city-based IoT projects. The cases that are shown in this talk hopefully will inspire more and better IoT applications to be developed, by getting to know what types of algorithms are suitable for delivering edge intelligence under FOG computing environment.



Assoc. Prof. Norihiro Kamide
Teikyo University, Japan

Norihiro Kamide received his Ph.D. in Information Science from Japan Advanced Institute of Science and Technology in 2000. He is now an associate professor of Teikyo University. His main research areas are Logic in Computer Science, Mathematical Logic and Philosophical Logic. He is interested in non-classical logics and their applications to Software Science and Artificial Intelligence. He is now especially interested in model checking, logic programming and knowledge representation.

Speech Title: Paraconsistent model checking: Logics, translations and examples

Abstract: Model checking is a formal and automated technique for verifying concurrent systems. Paraconsistent model checking, which is also called inconsistency-tolerant model checking, is a model checking paradigm that can appropriately verify systems with inconsistencies. Logics, translations and examples for paraconsistent model checking are presented in this talk. Paraconsistent linear-time temporal logic (pLTL) and paraconsistent computation-tree logic (pCTL), which can suitably represent inconsistency-tolerant reasoning, are introduced. These new logics are natural extensions of the standard temporal logics: linear-time temporal logic (LTL) and computation-tree logic (CTL), typically used in model checking. Translations from pLTL and pCTL into LTL and CTL, respectively, are defined, and theorems for embedding pLTL and pCTL into LTL and CTL, respectively, are proved using these translations. These embedding theorems allow us to reuse the standard LTL- and CTL-based model checking algorithms to verify inconsistent systems that are modeled and described by pLTL and pCTL. Some illustrative examples for paraconsistent model checking are also presented on the basis of the proposed logics and translations.

Time Schedule

Day 1: Registration: Dec. 28, 2017 (Thursday)

10:00-17:00	Arrival and Registration (Venue: Lobby)
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- (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.
- (6) One best oral presentation will be selected from each oral session. The Certificate for the best one will be awarded at the end of each session on Dec. 29, 2017.

Day 2: Conference: Dec. 29, 2017 (Friday)

Morning Session	Opening Remarks & Keynote Speeches Venue: Unicorn (Basement 2)
9:00-9:05	Opening Remarks  Prof. Yulin Wang Wuhan University, China
9:05-9:45	Keynote Speaker I  Prof. Shuanghua Yang Southern University of Science and Technology, China Title: Smart building energy consumption control and audit supported by wireless technologies
9:45-10:00	Coffee Break & Photo Session Venue: Unicorn (Basement 2)
10:00-10:40	Keynote Speaker II  Prof. Yulin Wang Wuhan University, China Title: Image Authentication and Tamper Localization

10:40-11:20	<p>Keynote Speaker III</p>  <p>Prof Lili Yang Loughborough University, UK Title: Enhancement of People's Water Consumption Behaviour</p>
11:20-12:00	<p>Keynote Speaker IV</p>  <p>Assoc. Prof. Simon James Fong University of Macau, Macau Title: Big Data Mining for FOG Computing: from Algorithms to Applications</p>
12:00-13:00	<p>Lunch Venue: Restaurant</p>
Afternoon Session	Invited Speech & Oral Presentations
Venue	Unicorn (Basement 2)
13:00-13:30	<p>Invited Speaker</p>  <p>Assoc. Prof. Norihiro Kamide Teikyo University, Japan Title: Paraconsistent model checking: Logics, translations and examples</p>
13:30-15:15	<p>Session 1 Venue: Unicorn (Basement 2) Theme: Business intelligence and information security</p>
15:15-15:30	Coffee Break
15:30-17:15	<p>Session 2 Venue: Unicorn (Basement 2) Theme: Software design and testing</p>
18:30-21:00	<p>Dinner Venue: Restaurant</p>

Session 1

13:30-15:15, Dec. 29, 2017

Venue: **Unicorn (Basement 2)**

Theme: Business intelligence and information security

Session Chair: **Assoc. Prof. Jiaming Fang**

University of Electronic Science and Technology of China, China

*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.

ID	Title+ Author's Name
<p align="center">Opening Speech 13:30-13:45</p>	<p>Mobile Travel Apps' Adoption: Integrating Perceived Characteristics of Innovation and Software Quality Jiaming Fang, Juan Li and Ruping Wang University of Electronic Science and Technology of China, China</p> <p>Abstract: The growing popularity of smartphone has changed the way of service operations and delivery in the travel and tourism industry. Mobile applications for travel information and activities in recent years proliferate rapidly and now have actually become a necessary travel kit for almost everyone. Thus, understanding the contributing factor of users' adoption intention of mobile travel apps is critically important for researchers and practitioners. However, there is little empirical research on what factors may drive customers' mobile travel apps adoption. The purpose of this study is to propose a research model based on perceived characteristics of innovation framework (PCI) and software quality model to identify the antecedents of mobile travel app adoption. This study uses survey data from 804 tourists and structural equation modeling (SEM) to empirically assess the research model. The results show that relative advantage, compatibility, ease of use, time convenience, social interaction, UI aesthetic and portability can positively influence users' adoption intention through attitude and involvement. Our findings provide important theoretical contributions and implications for travel-related companies operations and travel app software design.</p>
<p align="center">SE0011 13:45-14:00</p>	<p>Beyond Cybersecurity Awareness: Antecedents and Satisfaction Yazan Alshboul and Kevin Streff Yarmouk University, Jordan</p> <p>Abstract: Organizations develop technical and procedural measures to protect information systems. Relying only on technical based security solutions is not enough. Organizations must consider technical security solutions along with social, human, and organizational factors. The human element represents the employees (insiders) who use the information systems and other technology resources in their day-to-day operations. ISP awareness is essential to protect organizational information systems. This study adapts the Innovation Diffusion Theory to examine the antecedents of ISP awareness and its impact on the satisfaction with ISP and security practices. A sample of 236 employees in universities in the United States is collected to evaluate the research model. Results indicated that ISP quality, self-efficacy, and technology security awareness significantly impact ISP awareness. The current study presents significant contributions toward understanding the antecedents of ISP awareness and provides a starting point toward including satisfaction aspect in information security behavioral domain.</p>
<p align="center">SE0013 14:00-14:15</p>	<p>A Comparison of Teachers' Supportive Behaviour in Middle High School Classroom in Taiwan, Shanghai-China, and Finland: Evidence from PISA 2012 Wen-Hua Chen Institute of Curriculum and Instruction, Department of Education, National Taiwan Normal University, Taiwan</p> <p>Abstract: When evaluating the students' learning process, the previous mathematics curriculum in Taiwan valued rarely the role of inquiry and formative assessment. As an effort to understand the impact of this movement, the purpose with this study is to evaluate how Taiwan mathematics teachers perform specific tasks associated with three domains of instructional practices, including Teacher-directed Instruction, Formative Assessment and Teacher Support,</p>

	<p>drawing upon PISA 2012 data. Firstly, this study investigated the association between students' test scores in mathematics and student related factors that influence students' assessment of teachers in those skills. Next, compared the mathematics teachers in Taiwan with the mathematics teachers in Shanghai and Finland, which Taiwanese are always interested in. The study indicated that: controlling for the student characteristics, there is significant negative relationship between Formative Assessment and student mathematics achievement; the analyses suggested that there is no meaningful relationship between Teacher-directed Instruction and student mathematics score; Teacher Support is significantly but positively related to student mathematics achievement. Taiwan and Shanghai-China students are more likely to agree with availability of teacher support in their schools when compared with students in Finland.</p>
<p>SE0022 14:15-14:30</p>	<p>A Systematic Literature Review on Combining Ontology with Bayesian Network to Support Logical and Probabilistic Reasoning Foni Agus Setiawan, Eko K. Budiardjo, T. Basaruddin and Siti Aminah Faculty of Computer Science - Universitas Indonesia, Indonesia</p> <p>Abstract: Reasoning in ontology is currently limited to logical reasoning. It is because ontology does not have a standard for probabilistic reasoning. Various approaches have been made by researchers to add the ability for ontological reasoner to do probabilistic reasoning. The approach is done by combining ontology with Bayesian network that does have probabilistic reasoning abilities. This study mapped out various approaches performed in combining ontologies with Bayesian networks to realize logical and probabilistic reasoning simultaneously. We use a systematic literature review method to identify the primary studies on combining ontology with Bayesian network following a predefined review protocol. We searched from four indexing services (SCOPUS, IEEE Xplore, ACM Digital Library, and SpringerLink) and got the result of 74 papers accepted for the review. We extracted properties from these studies and found 8 motivations of the studies, 5 contexts, 4 factors involved, and 5 techniques used in combining ontology with Bayesian network. The aim and the context are clearly stated in most of the studies, while most of the authors did not completely discuss the threats in their papers. As for the method and findings, most of the studies describe and discuss it moderately.</p>
<p>SE2001 14:30-14:45</p>	<p>A Research on Modern Commercial Circulation Development Strategies in the Context of New-type Urbanization—A Case Study of Zhejiang Province Yong WANG and Rongbing HU School of Economics and Management, Southeast University, China</p> <p>Abstract: In order to adapt to the changes of macro-economic situation home and abroad, China needs to take the path of new-type urbanization. New-type urbanization should be consumer-driven. As a “forerunner industry” of the basic industries of the national economy, commercial circulation plays an important role in promoting labor transfer and city-industry integration. Since the reform and opening-up, circulation has played a key role in the marketization, industrialization, and urbanization of Zhejiang Province, and has become the biggest advantage of Zhejiang, a province that takes a lead in developing market and circulation. This paper takes Zhejiang Province as an example, analyzes the problems existing in the development of commercial circulation, and comes up with countermeasures.</p>
<p>SE2002 14:45-15:00</p>	<p>Bank Lines of Credit Will Be the Supplement of Cash in Corporate Liquidity Management Wenxuan Zheng</p> <p>Abstract: In this article, we will discuss whether lines of credit can be a supplement to cash as a source of liquidity for firms to make a choice. When firms want to raise funds from market, a credit line or cash will be both agreeable choice, if the world is frictionless, where there exist no transaction cost, and where information is symmetry. However, the world is frictional, and these two are distinctive to each others under special circumstances, be them covenants in a contract, unexpected market downturn, and even unique properties of cash and credit lines. Also</p>

	<p>reactions from firms when face cash and credit lines render their difference more probable and observable. Furthermore, a shift of preference to credit lines during and after credit crisis for bank and firms will be noticed. When credit crisis in 2008 broke out, banks and firms would re-consider their liquidity management in order to hedge off their financial risk as much as possible.</p>
<p>SE2005 15:00-15:15</p>	<p>A bibliometric analysis of two decades of research on business models Indranil Bose Indian Institute of Management Calcutta, India</p> <p>Abstract: Owing to the huge volume of literature on business models, this study investigates the primary conceptual categories of research on this topic. It attempts to identify major research trends about business models through a systematic categorization of extant academic literature. The paper provides a bibliometric analysis of articles published between 1997-2017. A burst analysis of the seminal articles is also provided to identify the influence of the research articles. This study identifies the most influential authors, seminal articles and the most productive journals that have published research on business models. The results of this study develops a systematic analysis of two decades of research on the topic of business models and further aims to help future scholars develop a holistic understanding of the evolution of research on the topic over time.</p>
<p>15:15-15:30</p>	<p>Coffee Break</p>

Session 2

15:30-17:15, Dec. 29, 2017

Venue: **Unicorn (Basement 2)**

Theme: Software design and testing

Session Chair: **Prof. Yulin Wang**

Wuhan University, China

**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.

ID	Title+ Author's Name
SE0002 15:30-15:45	<p>Online community support for the marketing of cosmetic medicine Jyh Jeng Wu, Shu Hua Chien, Yu-Peng Lee and Thoung-Han Lee Taiwan National United University, Taiwan</p> <p>Abstract: The rise of the cosmetic medicine industry and the popularization of the Internet have inevitably led to a degree of intersection between the two, including a broad range of messaging and future applications. This study evaluated whether the effects of medical quality and the approach–avoidance effect on medical trust are significant. The results indicate that recognition of medical quality significantly affects the approach–avoidance effect and that overall community support is positively correlated with the approach–avoidance effect. Of the facets of community support, emotional support is the most important. Participants valued interaction quality the most, but the quality of results did not have a significant effect on medical trust, possibly reflecting consumer distrust of medical results advertising.</p>
SE0003 15:45-16:00	<p>A Comprehensive Investigation of Model Driven Architecture (MDA) for Reverse Engineering Umair Sabir, Farooque Azam and Muhammad Waseem Anwar Department of Computer Engineering, College of E&ME, National University of Sciences and Technology (NUST), Pakistan</p> <p>Abstract: Models and transformations are the primary elements of Model Driven Architecture (MDA). On the other hand, Reverse Engineering (RE) also deals with the intermediate models and different transformation practices to produce the desired output models. Consequently, MDA have been utilized in the field of reverse engineering. This article inspects and summarizes the applications of MDA for RE. Particularly, a Systematic Literature Review (SLR) is performed to analyze 23 studies published during 2006-2017. Consequently, five leading RE techniques are identified. Moreover, 10 tools regarding MDA-based reversed engineering have been presented. Furthermore, modeling and transformation approaches are investigated for reverse engineering. The results of this SLR are highly valuable for academia and industry professionals of the domain.</p>
SE0007 16:00-16:15	<p>Aspect-Oriented Approach for Supporting House Bookkeeping Software Design Meennapa Rukhiran and Paniti Netinant Rangsit University, Thailand</p> <p>Abstract: Aspect-Oriented Approach is mainly applied for supporting software design in many software applications. The separation of concerns is the most significant purpose to handle with flexible requirements. In this paper, we have designed a fine granularity of a House Bookkeeping Conceptual Framework based on set of data, functional data, and aspect elements of layers. A weaver model is an execution of integrating three concerns that they are separated relatively. A dynamic weaving is provided supporting of adaptive and extensive changes in concerns during a run-time. The notion of logical quantifiers is introduced to express an infinite series of table names among three-dimensional data sets. An Aspect Oriented Approach for supporting house bookkeeping software design based on a prototyping model is proposed to describe a process for analyzing, designing, implementing, and reviewing through a unique division of the fine granularity as well. For future research, the challenge of an implement phase is to design an execution flow of the components by applying the concept design of aspect-oriented software development.</p>

<p>SE0012 16:15-16:30</p>	<p>Usability test method for embedded systems Considering with visually impaired Masayuki HIRAYAMA College of science and Technology, Nihon University, Japan</p> <p>Abstract: Along with the advancement of the system, the user base has also been expanding. The usability of a Graphical User Interface (GUI), especially for people with poor vision, is of paramount importance. Therefore, a usability test which takes such users into account is required to be performed before releasing software for general use. In this research paper, we propose a method for conducting usability tests by simulating users suffering from amblyopia. We intentionally blur a GUI by using a Gaussian filter and design and conduct usability tests equivalent to amblyopia performed by healthy operators. In addition, this paper presents an experimental evaluation applied to a simple route navigation system using the proposed method, thereby demonstrating its usefulness.</p>
<p>SE0016 16:30-16:45</p>	<p>Empirical Study on Software Bug Prediction Syed Rizwan, Wang Tiantian, Su Xiaohong, Salahuddin School of Computer Science and Technology, Harbin Institute of Technology, China</p> <p>Abstract: Software defect prediction is a vital research direction in software engineering field. Software defect prediction predicts whether software errors are present in the software by using machine learning analysis on software metrics. It can help software developers to improve the quality of the software. Software defect prediction is usually a binary classification problem, which relies on software metrics and the use of classifiers. There have been many research efforts to improve accuracy in software defect prediction using a variety of classifiers and data preprocessing techniques. However, the "classic classifier validity" and "data preprocessing techniques can enhance the functionality of software defect prediction" has not yet been answered explicitly. Therefore, it is necessary to conduct an empirical analysis to compare these studies. In software defect prediction, the category of interest is a defective module, and the number of defective modules is much less than that of a non-defective module in data. This leads to a category of imbalance problem that reduces the accuracy of the prediction. Therefore, the problem of imbalance is a key problem that needs to be solved in software defect prediction. In this paper, we proposed an experimental model and used the NASA MDP data set to analyze the software defect prediction. Five research questions were defined and analyzed experimentally. In addition to experimental analysis, this paper focuses on the improvement of SMOTE. SMOTE ASMO algorithm has been proposed to overcome the shortcomings of SMOTE.</p>
<p>SE0024 16:45-17:00</p>	<p>The Rise of Ransomware Wira Zanoramy Ansiry Zakaria CYBERSECURITY MALAYSIA, Malaysia</p> <p>Abstract: Ransomware continues to be one of the most crucial cyber threats and is actively threatening IT users around the world. In recent years, it has become a phenomenon and traumatic threat to individuals, governments and organizations. Ransoms not only penalized computational operations, it also mercilessly extorts huge amount of money from the victims if the victims want to regain back access to the system and files. As such, the cybercriminals are making millions of profits and keep on spreading new variants of ransomware. This paper discusses about ransomware and some related works in fighting this threat.</p>
<p>SE2008-A 17:00-17:15</p>	<p>The Bankruptcy of Long-term Credit Bank of Japan and the Implications to China Development Bank Yalu Liu and Yaqiao Wu Sichuan International Studies University, China</p>

	Abstract: This paper studies the bankruptcy of the Long-Term Credit Bank of Japan by examining the external and internal context during late 20th century. Then the paper carries out study on China Development Bank with the similar approaches of internal and external analysis. By comparing and contrasting between these two banks, the paper concludes similarities and differences, and finally draws lessons from LTCB's failure and offers implications to CDB in its future operation.
18:30-21:00	Dinner (Restaurant)

Poster Session

<p>SE0004</p>	<p>Research on Potential Damage Estimation of Household Appliances Based on gcForest Model Liu Xia, Tu Shenhao, Zhang Run, Wu Qian and Song Yuantao China National Institute of Standardization, China</p> <p>Abstract: Safety accidents of household electrical appliances have been emerging in recent years, which made some scholars begin to study from the safety of industrial electrical appliances to household electrical appliances. In view of the small sample data, this paper combines the latest depth learning method-gcForest to study the relationship between the model of "human-environment-usage-possible injuries" in household electrical appliance safety accidents and predict possible damages according to the factor such as human, environment and usages. This paper aims to decrease the household electrical appliances security risks in the daily life and guide manufacturers to a avoid domestic appliances damage in the right direction.</p>
<p>SE0018</p>	<p>A Feature-oriented Domain Design Approach to FX Derivatives Trading System Yao Wang, Na Li and Feifan Zhang CFETS Information Technology, (Shanghai) Co., Ltd., China</p> <p>Abstract: With the continuous development of inter-bank FX (foreign exchange) market, FX trading platform has been developed from a single electronic trading platform to multiple electronic trading platforms which covered a variety of trading products and trading mechanisms. FX transactions belong to specific areas, and their application systems have a lot of commonalities in the business requirements, architecture and concrete realization. There are certain cohesion and stability in domain. In this paper, an improved FODA (Feature-oriented Domain Analysis) method is used to analyze the domain and application requirements of FX derivatives. To achieve reusable domain components, DSSA (Domain Specific Software Architecture) is designed firstly to recognize the public and variable parts in FX derivatives field. Then, based on the analysis of feature model, domain model is adopted to deal with the reuse problem of FX derivatives component. After that, the FSM (Finite State Machine) is designed to guarantee the idempotent of the service. Finally, this paper shows the design and implementation of FX derivatives. In proof-of-concept domain-based FX derivatives trading system, the improvement of efficiency and quality in software development is well demonstrated.</p>
<p>SE2004</p>	<p>Targeting Algorithm Based on ITSM Li Qiong, Bo Wang and Hong Wu Mianyang Normal University, China</p> <p>Abstract: In this paper, the tactical significance map (TSM) is introduced at first, and then a novel prioritizing method based on improved TSM (ITSM) is proposed. a prioritizing model based on multi-attribute linear weighting is established; and then, through improving the tactical significance map (TSM), a novel targets prioritizing algorithm is proposed, which is extended to multi-asset attack scenario. The simulations executed in single-asset attack and multi-asset attack indicate that the proposed algorithm definitely reflects the relationship between the attributes and the priority. As a result, the proposed algorithm can adapt to the real battlefield more easily than the multi-attribute linear weighting and tactical significance map. The application scope is extended from two-dimension to three-dimension, and the assets needed to protect are extended from single asset to multi-asset. Simulation results indicate that the proposed method can adapt to the real battlefield situation.</p>

Listener List

L 1	Karl Berrisford Davies SW12 Data Services Ltd, London, UK
L 2	Carl Hampus Sand �n Partner 56K digital, Ecommerce and Machine Learning Agency
L 3	Karl David Decipha, Melbourne, Australia

Call For Papers



2018 International Conference on Big Data and Education (ICBDE 2018) will be held in Honolulu, Hawaii, USA during 9-11 March, 2018.

Learn how to generate substantial returns and gain competitive advantage with an intelligent, strategic approach to Big Data. Follow the practical steps to establish a core capability, and then build on that for a solid foundation. Big Data Maturity Model Assessment Survey. Maybe you have many questions about Big Data. Don't worry. ICBDE is expected to provide an opportunity for the researchers to meet and discuss the latest solutions, scientific results and methods in solving intriguing problems in the fields of Big Data and education. Let's explore the world of Big Data!

Publication



IC4E Proceeding will be published 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).

ISBN: 978-1-4503-6358-7



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:

Big Data Science and Foundations
 Big Data Applications
 Big Data Infrastructure
 E-Business Systems for Multiple Platforms
 Novel Theoretical Models for Big Data
 New Computational Models for Big Data
 Data and Information Quality for Big Data
 Complex Big Data Applications in Science, Engineering, Medicine, Healthcare, Finance, Business, Law, Education, Transportation, Retailing, Telecommunication

Big Data Analytics in Small Business Enterprises (SMEs)
 Cloud/Grid/Stream Computing for Big Data
 High Performance/Parallel Computing Platforms for Big Data
 Autonomic Computing and Cyber-infrastructure, System Architectures, Design and Deployment
 Energy-efficient Computing for Big Data
 Software Techniques and Architectures in Cloud/Grid/Stream Computing
 Big Data Open Platforms

Submission Methods

1. Email: icbde@iedrc.net
2. Electronic Submission System: <http://www.easychair.org/conferences/?conf=icbde2018>

Important Dates

Submission Deadline:	10 January, 2018
Notification of Acceptance:	30 January, 2018
Registration Deadline:	15 February, 2018
Conference Dates:	9-11 March, 2018

<http://www.icbde.org/>

ICIEB 2018

will be held in Singapore during April 25-27, 2018

2018 International Conference on Internet and e-Business



2018 International Conference on Internet and e-Business (ICIEB 2018), will be held in Nanyang Executive Center, Singapore during April 25-27, 2018.

ICIEB aims at bringing together researchers and practitioners who are interested in e-Business technology and its current applications. The scope of the conference covers low-level technological issues, such as technology platforms, internet of things and web services, but also higher-level issues, such as business processes, business intelligence, value setting and business strategy. Furthermore, it covers different approaches to address these issues and different possible applications with their own specific needs and requirements on technology. These are all areas of theoretical and practical importance within the broad scope of e-Business, whose growing importance can be seen from the increasing interest of the IT research community.

Publication



IC4E Proceeding will be published 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).

ISBN: 978-1-4503-6375-4



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:

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

Submission Methods

1. Email: icibe@iedrc.net
2. EasyChair System: <https://cmt3.research.microsoft.com/ICIEB2018>

Important Dates

Submission Deadline	January 05, 2018
Notification Date	January 25, 2018
Registration Deadline	February 15, 2018
Conference Dates	April 25-27, 2018

<http://www.icefr.org/>

2018 The 2nd International Conference on E-Education, E-Business and E-Technology

Grand Gongda Jianguo Hotel, Beijing, China during July 05-07, 2018

ICEBT 2018

2018 The 2nd International Conference on E-Education, E-Business and E-Technology (ICEBT 2018) will be held in Grand Gongda Jianguo Hotel, Beijing, China during July 05-07, 2018. ICEBT is organized by IEDRC and supported by Beijing University of Technology, which 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.

Beijing University of Technology (simplified Chinese: 北京工业大学; traditional Chinese: 北京工業大學; pinyin: Běijīng Gōngyè Dàxué), also called Beijing Polytechnic University or Bei Gong Da (北工大), is recognized as one of the Project 211 universities. The University has established a multidisciplinary academic structure, offering a variety of programs and is involved in diversified research in the fields of Science, Engineering, Economics, Management, Liberal Arts, and Law. Beijing University of Technology is located in the southeastern Beijing and was founded in 1960 with five engineering departments. In 1981, Beijing University of Technology formed the graduate school, in 1985, the school started granting the Doctoral degrees with international standard.

Publication

All accepted papers by ICEBT 2018 will be published in international conference proceedings, which will be indexed by EI Compendex and Scopus.

Topics

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

AV-Communication and Multimedia

Accessibility to Disabled Users

e-Business

Assessment Methods in Blended Learning Environments

Assessment Software Tools

Innovative business models

Assessment and Accreditation of Courses and Institutions

Authoring Tools and Content Development

Enterprise application integration

Blended Learning

Collaborative Learning

Critical Success Factors in Distance Learning•

Virtual organizations and coalitions

Digital Libraries for E-Learning

Distance Education

Customer relationship management

Distance and E-Learning in a Global Context

E-Learning Hardware and Software

e-Collaboration and e-Services

E-Learning Platforms, Portals•

E-Learning Success Cases

Inter-organizational systems

Submission Methods

1. Email: icebt@iedrc.net

2. EasyChair System: <https://cmt3.research.microsoft.com/ICEBT2018>

Important Dates

Submission Deadline	March 15, 2018
Notification Date	April 05, 2018
Registration Deadline	April 25, 2018
Conference Dates	July 05-07, 2018

<http://www.icebt.org/>



Welcome to the official website of 2018 International Conference on Computing and Big Data (ICCD 2018), which will be held in College of Charleston, South Carolina, USA during September 08-10, 2018.

Publication

All accepted papers by ICCBD 2018 will be published in international conference proceedings, which will be indexed by EI Compendex and Scopus.

Topics

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

- Information Security & Computer Forensics
- Cloud Computing and Big Data
- Green Computing
- Signal & Image Processing
- Remote Sensing
- IP mobility protocols
- Communications software and services Big Data Infrastructure
- Big Data Management
- Big Data Search and Mining
- Big Data Security and Privacy

- Bid Data Applications
- Data Mining
- Data Warehousing
- Novel Theoretical Models for Big Data
- New Computational Models for Big Data
- Data and Information Quality for Big Data
- New Data Standards
- Complex Big Data Applications in Science, Engineering, Medicine, Healthcare, Finance, Business, Law, Education, Transportation, Retailing, Telecommunication

Submission Methods

1. Email: iccbd@iedrc.net
2. EasyChair System: <https://cmt3.research.microsoft.com/ICCD2018>

Conference Website

Important Dates

Submission Deadline:	April 30, 2018
Notification Deadline:	May 20, 2018
Registration Deadline:	June 10, 2018
Conference Dates:	September 08-10, 2018

<http://www.iccbd.org/>

