

**The Fourth IEEE International Conference on Big Data and Cloud Computing  
(BDCloud2014)**

**The Seventh IEEE International Conference on Social Computing and  
Networking (SocialCom2014)**

**The Fourth IEEE International Conference on Sustainable Computing and  
Communications (SustainCom2014)**

3-5 December 2014

Sydney Australia



Organised by

**Lab for Cloud Computing and Data Intensive Systems  
Australian Research Centre for Big Data Technologies  
University of Technology Sydney, Australia**

Sponsored by

IEEE and IEEE Computer Society

IEEE CS Technical Committee on Scalable Computing (TCSC)

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School of Systems, Management and Leadership

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## Notes:

Paper presentation time slot: 20 minutes

Keynote time slot: 60 min

Poster: through the whole conference period

Presentation facilities: provided by the conference venue

Wireless Internet: provided by the conference venue

UTS Security: dial 6 from any internal phones, or 1800 249 559 from your mobile

# Program at a Glance

Tuesday 2 December 2014	
16:00-18:00	Pre-Registration (Level 1, CB05C – Block C, Building 5)
18:00-20:00	Welcome Reception

Wednesday 3 December 2014			
08:00-18:00	Registration (Level 1, CB05C – Block C, Building 5)		
09:00-09:10	Opening and Welcome (C.1.31) UTS Authority Rep and A/Prof. Jinjun Chen, University of Technology Sydney, Australia		
09:10-10:10	Keynote Address 1: (C.1.31) Speaker: Prof. Rajkumar Buyya Title: Market-Oriented Cloud Computing and Big Data Applications Chair: A/Prof. Jinjun Chen		
10:10-11:10	Keynote Address 2: (C.1.31) Speaker: Prof. Frank Wang Title: How will computers evolve over the next 10 years? A Perspective on Cloud Computing/Green Computing/Future Computing Chair: Prof. Laurent Lefevre		
11:10-11:30	Morning Tea (Level 1, CB05C – Block C, Building 5)		
11:30-12:30	Keynote Address 3: (C.1.31) Speaker: Prof. Jian Pei Title: Challenges in Migrating Big Data Analytics to Clouds Chair: Dr. Babak Abedin		
12:30-13:30	Lunch (Level 1, CB05C – Block C, Building 5)		
13:30-15:30	Session 1A: BDCloud2014 (C.1.29)	Session 1B: SocialCom2014 (C.1.30)	Session 1C: SustainCom2014 (C.2.46)
15:30-16:00	Afternoon Tea (Level 1, CB05C – Block C, Building 5)		
16:00-18:00	Session 2A: BDCloud2014 (C.1.29)	Session 2B: SocialCom2014 (C.1.30)	Session 2C: SustainCom2014 (C.2.46)

Thursday 4 December 2014			
08:00-18:00	Registration (Level 1, CB05C – Block C, Building 5)		
09:00-10:00	Keynote Address 4: (C.1.31) Speaker: Prof. Yanchun Zhang Title: Medical Big Data: Medical/Health Data Mining and Innovative Applications Chair: Prof. Muhammad Ali Babar		
10:00-11:00	Keynote Address 5: (C.1.31) Speaker: Prof. Albert Zomaya Title: Efficiency of Resource Abundant Clouds Chair: Prof. Jemal Abawajy		
11:00-11:30	Morning Tea (Level 1, CB05C – Block C, Building 5)		
11:30-12:30	Keynote Address 6: (C.1.31) Speaker: Prof. Yang Xiang Title: Application of Data Analytics: Security and Privacy in Social Networks Chair: Dr. Jun Shen		
12:30-13:30	Lunch (Level 1, CB05C – Block C, Building 5)		
13:30-15:30	Session 3A: BDCloud2014 (C.1.29)	Session 3B: SocialCom2014 (C.1.30)	Session 3C: SustainCom2014 (C.1.31)
15:30-16:00	Afternoon Tea (Level 1, CB05C – Block C, Building 5)		
16:00-18:00	Session 4A: BDCloud2014 (C.1.29)	Session 4B: SocialCom2014 (C.1.30)	Session 4C: GSN2014 (C.1.31)
19:00-23:00	Banquet (Cruise dinner. Boarding address: 32 The Promenade, King Street Wharf 5, Sydney, NSW 2000, Australia, Tel: (02) 8296 7202).  <b>NB: We will gather at Level 1, CB05C – Block C, Building 5, i.e. outside the keynote room at 7:00pm. Then, we walk for the banquet and enjoy the city sightseeing at the same time.</b>  <b>NB: Please bring your name badge. Otherwise, you may not be allowed for boarding.</b>		

Friday 5 December 2014			
08:00-18:00	Registration (Level 1, CB05C – Block C, Building 5)		
09:00-10:00	Keynote Address 7: (C.1.31) Speaker: Prof. Jemal Abawajy Title: Hybrid Consensus Pruning of Ensemble Classifiers for Big Data Malware Detection Chair: Dr. Javid Taheri		
10:00-11:00	Keynote Address 8: (C.1.31) Speaker: Prof. Muhammad Ali Babar Title: Understanding and Addressing Architectural Challenges of Cloud-Based Systems Chair: Prof. Wanchun Dou		
11:00-11:30	Morning Tea (Level 1, CB05C – Block C, Building 5)		
11:30-12:30	Keynote Address 9: (C.1.31) Speaker: Prof. Vijay Varadharajan Title: Security and Privacy Issues in the Changing Cyber Landscape With Cloud, Big Data and Internet of Technologies Chair: A/Prof Jinjun Chen		
12:30-13:30	Lunch (Level 1, CB05C – Block C, Building 5)		
13:30-15:30	Session 5A: BDCloud2014 (C.1.29)	Session 5B: SocialCom2014 (C.1.30)	Session 5C: SustainCom2014 and PriSec2014 (C.1.31)
15:30-16:00	Afternoon Tea (Level 1, CB05C – Block C, Building 5)		
16:00-18:00	Session 6A: BDCloud2014 (C.1.29)	Session 6B: SocialCom2014 (C.1.30)	Session 6C: BDCloud2014 (C.1.31)

# Keynote Speech

## Professor Jian Pei

Simon Fraser University, Canada

### Challenges in Migrating Big Data Analytics to Clouds

(Big) Data analytics has achieved well recognized successes using traditional computational architecture, and, at the same time, is facing the grand challenge of scalability. Cloud computing is enticing. However, many well accepted data analytics tasks have not been scaled out effectively yet. In this talk, I, as a data mining veteran, will discuss several challenges in migrating big data analytics to clouds, including search in exponential space of #P-hard problems, interactive mining, and pay-as-you-go. The challenges invite interdisciplinary research and development to unlock the power of big data analytics using the key of edge-cutting cloud computing.

**Short Bio:** Jian Pei is Canada Research Chair (Tier 1) in Big Data Science, and Professor of Computing Science at Simon Fraser University. He is widely regarded as one of the world's top researchers in the area of data mining and his work has been embraced by industry and government. Since 2000, his research has focused on developing effective and efficient ways to analyze - and capitalize on - the vast stores of data housed in applications such as social networks, network security informatics, healthcare informatics, business intelligence, and web searches. A prolific and widely-cited author, Professor Pei has received many prestigious awards including induction as a Fellow of IEEE.

# Keynote Speech

**Professor Rajkumar Buyya**

The University of Melbourne, Australia

## Market-Oriented Cloud Computing and Big Data Applications

Computing is being transformed to a model consisting of services that are commoditised and delivered in a manner similar to utilities such as water, electricity, gas, and telephony. In such a model, users access services based on their requirements without regard to where the services are hosted. Several computing paradigms have promised to deliver this utility computing vision. Cloud computing has emerged as one of the buzzwords in the IT industry and turned the vision of "computing utilities" into a reality. Several IT vendors have started offering computation, storage, and application hosting services, and provide coverage in several continents, supporting Service-Level Agreements (SLA) backed performance and uptime promises for their services. Clouds deliver infrastructure, platform, and software (application) as services, which are made available as subscription-based services in a pay-as-you-go model to consumers. The price that Cloud Service Providers charge can vary with time and the quality of service (QoS) expectations of consumers. This seminar/keynote presentation will cover (a) 21st century vision of computing and identifies various IT paradigms promising to deliver the vision of computing utilities; (b) opportunities and challenges for utility and market-oriented Cloud computing, (c) innovative architecture for creating market-oriented and elastic Clouds by harnessing virtualisation technologies; (d) Aneka, a Cloud Application Platform, for rapid development of Cloud/Big Data applications and their deployment on private/public Clouds with resource provisioning driven by SLAs; (e) experimental results on deploying Cloud and Big Data applications in engineering, gaming, and health care domains (integrating sensors networks, mobile devices), ISRO satellite image processing on elastic Clouds, and (f) directions for delivering our 21st century vision along with pathways for future research.

**Short Bio:** Dr. Rajkumar Buyya is Professor of Computer Science and Software Engineering, Future Fellow of the Australian Research Council, and Director of the Cloud Computing and Distributed Systems (CLOUDS) Laboratory at the University of Melbourne, Australia. He is also serving as the founding CEO of Manjrasoft, a spin-off company of the University, commercializing its innovations in Cloud Computing. He has authored over 450 publications and four text books including "Mastering Cloud Computing" published by McGraw Hill and Elsevier/Morgan Kaufmann, 2013 for Indian and international markets respectively. He also edited several books including "Cloud Computing: Principles and Paradigms" (Wiley Press, USA, Feb 2011). He is one of the highly cited authors in computer science and software engineering worldwide (h-index=86, g-index=176, 34300+ citations). Microsoft Academic Search Index ranked Dr. Buyya as the world's top author in distributed and parallel computing between 2007 and 2012. "A Scientometric Analysis of Cloud Computing Literature" by German scientists ranked Dr. Buyya as the World's Top-Cited (#1) Author and the World's Most-Productive (#1) Author in Cloud Computing.

Software technologies for Grid and Cloud computing developed under Dr. Buyya's leadership have gained rapid acceptance and are in use at several academic institutions and commercial enterprises in 40 countries around the world. Dr. Buyya has led the establishment and development of key community activities, including serving as foundation Chair of the IEEE Technical Committee on Scalable Computing and five IEEE/ACM conferences. These contributions and international research leadership of Dr. Buyya are recognized through the award of "2009 IEEE TCSC Medal for Excellence in Scalable Computing". Manjrasoft's Aneka Cloud technology developed under his leadership has received "2010 Asia Pacific Frost & Sullivan New Product Innovation Award" and "2011 Telstra Innovation Challenge, People's Choice Award". He is currently serving as the foundation Editor-in-Chief (EiC) of IEEE Transactions on Cloud Computing and Co-EiC of Journal of Software: Practice and Experience. For further information on Dr. Buyya, please visit his cyberhome: [www.buyya.com](http://www.buyya.com).

# Keynote Speech

**Professor Frank Wang**

University of Kent, UK

## **How will computers evolve over the next 10 years? A Perspective on Cloud Computing/Green Computing/Future Computing**

Computer science has impact on many parts of our lives. Computer scientists craft the technologies that enable the digital devices we use every day and computing will be at the heart of future revolutions in business, science, and society. Our research targets the next generation computing paradigms and their applications. We have been working on Cloud Computing and Big Data for many years. A developed Cloud Computing platform conforms to the Internet standard and can universally accelerate BigData/Web/Media applications by a factor up to ten. This work won an ACM/IEEE Super Computing finalist award. We will also report our research on Green Computing, Brain Computing and Future Computing.

**Short Bio:** Frank Z. Wang is the Professor in Future Computing and Head of School of Computing, University of Kent, UK. The School of Computing was formally opened by Her Majesty the Queen. Professor Wang's research interests include cloud computing, big data, green computing, brain computing and future computing. He has been invited to deliver keynote speeches and invited talks to report his research worldwide, for example at Princeton University, Carnegie Mellon University, CERN, Hong Kong University of Sci. & Tech., Tsinghua University (Taiwan), Jawaharlal Nehru University, Aristotle University, and University of Johannesburg. In 2004, he was appointed as Chair & Professor, Director of Centre for Grid Computing at CCHPCF (Cambridge-Cranfield High Performance Computing Facility). CCHPCF is a collaborative research facility in the Universities of Cambridge and Cranfield (with an investment size of £40 million). Prof Wang and his team have won an ACM/IEEE Super Computing finalist award. Prof Wang is Chairman (UK & Republic of Ireland Chapter) of the IEEE Computer Society and Fellow of British Computer Society. He has served the Irish Government High End Computing Panel for Science Foundation Ireland (SFI) and the UK Government EPSRC e-Science Panel.



# Keynote Speech

**Professor Albert Zomaya**

The University of Sydney, Australia

## Efficiency of Resource Abundant Clouds

The cloud is well known for its elasticity by leveraging abundant resources. Cloud data centres easily host thousands or even millions of multicore servers. Further, these servers are increasingly virtualized for the sake of data centre efficiency. However, the reality is that these resources are often relentlessly exploited particularly to improve applications performance. Although the elasticity facilitates achieving cost efficiency (or the performance to cost ratio), the ultimate efficiency in resource usage (or more broadly data centres) lies in scheduling and resource allocation strategies that explicitly take into account actual resource consumption. The optimization of resource efficiency in clouds is of great practical importance considering its numerous benefits in the economic and environmental sustainability. In this talk, we will discuss resource efficiency in cloud data centres with an example of large-scale distributed processing applications including scientific workflows and MapReduce jobs.

**Short Bio:** Albert Y. ZOMAYA is currently the *Chair Professor of High Performance Computing & Networking* and *Australian Research Council Professorial Fellow* in the School of Information Technologies, The University of Sydney. He is also the *Director of the Centre for Distributed and High Performance Computing* which was established in late 2009. Professor Zomaya is the author/co-author of seven books, more than 400 papers, and the editor of nine books and 11 conference proceedings. He is the Editor in Chief of the *IEEE Transactions on Computers* and serves as an associate editor for 19 leading journals. Professor Zomaya is the recipient of the *Meritorious Service Award* (in 2000) and the *Golden Core Recognition* (in 2006), both from the *IEEE Computer Society*. Also, he received the *IEEE TCPP Outstanding Service Award* and the *IEEE TCSC Medal for Excellence in Scalable Computing*, both in 2011. Professor Zomaya is an ACM Distinguished Speaker, a Chartered Engineer, a Fellow of AAAS, IEEE, IET (U.K.), and a Distinguished Engineer of the ACM.

# Keynote Speech

**Professor Yanchun Zhang**

Victoria University, Australia

## **Medical Big Data: Medical/Health Data Mining and Innovative Applications**

In last few decades, with the advent of database systems and networking technologies, a huge volume of health data and valuable medical knowledge have been electronically available, accessible and processible, especially over the virtual cyberspace - the Web, even from a remote corner in the world. Nowadays the wide deployment of Hospital Information Management Systems (HIMS) and Web based clinical or medical systems, for example, the Medical Director, a generic GP clinical system, have made it possible to record, disseminate and implement the health information and clinical practices easily and globally. And health care and medical service is becoming more data-intensive and evidence-based since electronic health records are used to track individuals' and communities' health information (particularly changes). These substantially motivate and advance the emergence and the progress of data-centric health data and knowledge management research and practice, for example, Health Informatics.

In this talk, we will introduce several case studies and research projects to address the challenges encountered in health service. We will then introduce a framework of data integration, knowledge management and user behaviour modelling for complementing and improving existing health care and service systems.

**Short Bio:** Yanchun Zhang is a Professor and Director of the Centre for Applied Informatics at Victoria University. Dr Zhang obtained a PhD degree in Computer Science from The University of Queensland in 1991. Prof. Zhang' research interests include databases, cooperative transactions management, web information systems, web mining, web services and e-health. He has published over 200 research papers in international journals and conference proceedings including top journals such as ACM Transactions on Computer and Human Interaction (TOCHI), IEEE Transactions on Knowledge and Data Engineering (TKDE), and a dozen of books and journal special issues in the related areas. Dr. Zhang is a founding editor and editor-in-chief of World Wide Web and Health Information Science and Systems. He is Chairman of International Web information Systems Engineering Society (WISE). He was a member of Australian Research Council's College of Experts (2008-2010), and is one of the National "Thousand Talents Program" Experts in China with Fudan University.

# Keynote Speech

**Professor Muhammad Ali Babar**

The University of Adelaide, Australia

## **Understanding and Addressing Architectural Challenges of Cloud-Based Systems**

Like in any other large-scale software intensive system, software architecture is critical in developing and evolving cloud-enabled systems. The role of software architecture in cloud-based system is neither trivial nor well understood. It is important to understand the key architectural challenges in designing and evolving cloud-based systems. To this end, we have been systematically studying several cases of academic efforts and industrial practices aimed at designing and evolving cloud-based systems in private and public sectors. Our goal is provide evidence-based insights to our and others' efforts aimed at devising novel and innovative approaches and tools for architecting cloud-based systems. The talk will peek through the details of some of the cases to highlight the architectural challenges and some of the solutions to address them. This talk will also share the information gleaned from the studied cases and pinpoint some of the key architecture related areas that need immediate attention of practitioners and researchers.

**Short Bio:** Muhammad Ali Babar is a Professor of Software Engineering in the School of Computer Science, the University of Adelaide, Australia. He is the founder and coordinator of CREST – Centre for Research on Engineering Software Technologies (<http://crest-centre.net>). He also holds an academic position with IT University of Copenhagen, Denmark. Prior to this, he was Reader in Software Engineering at Lancaster University UK. Previously, he worked as a researcher and project leaders in different research centers in Ireland and Australia. His research projects have attracted funding from various agencies in Denmark, UK, Ireland, and Australia. He is a member of the steering committees of several international software engineering and architecture conferences such as WICSA, ECSA, and ICGSE. He regularly runs tutorials and gives talks on topics related to cloud computing, software architecture and empirical approaches at various international conferences. More information on Prof. M. Ali Babar can be found at <http://malibabar.wordpress.com>.

# Keynote Speech

**Professor Jemal Abawajy**

Deakin University, Australia

## **Hybrid Consensus Pruning of Ensemble Classifiers for Big Data Malware Detection**

Despite of the fact that security and privacy are critical issues in big data, more research needs to be done in the area of malicious software (malware) detection and prevention. In this presentation, we introduce an ensemble classifier and new advanced ensemble pruning method. We show experimental results of the new method as compared to several state-of-art ensemble pruning method for big data platforms.

**Short Bio:** Jemal H. Abawajy is a full Professor and the Director of the Parallel and Distributing Computing (PARADISE) Lab at Deakin University, Australia. He is a Senior Member of IEEE and was a member of the organizing committees for over 400 international conferences serving in various capacities including chair and general co-chair. He has published more than 200 refereed articles, supervised numerous PhD students to completion and is on the editorial boards of many journals.

# Keynote Speech

## Professor Yang Xiang

School of Information Technology  
Deakin University, Australia

### Application of Data Analytics: Security and Privacy in Social Networks

Today's online social networks have pervaded all aspects of our daily lives. With their unparalleled popularity, online social networks have evolved from the platforms for social communication and news dissemination, to indispensable tools for professional networking, social recommendations, marketing, and online content distribution. Their evolution has influenced every technological, societal, and cultural aspect of human beings. They are receiving more and more attention in research communities.

It has been widely recognized that security and privacy are the critical issues in online social networks. On one hand, online social networks have been the effective platform for the attackers to launch attacks and distribute malicious information. On the other hand, privacy leakage through online social networks has become common exercise. New methods and tools, consequently, must follow up in order to adapt to this emerging security paradigm. In this talk, we will discuss the security and privacy problems in social networks and how big data analytics can be used to address the problems.

**Short Bio:** Professor Yang Xiang received his PhD in Computer Science from Deakin University, Australia. He is currently a full professor at School of Information Technology, Deakin University. He is the Director of the Network Security and Computing Lab (NSCLab) and the Associate Head of School (Industry Engagement). His research interests include network and system security, distributed systems, and networking. In particular, he is currently leading his team developing active defense systems against large-scale distributed network attacks. He is the Chief Investigator of several projects in network and system security, funded by the Australian Research Council (ARC). He has published more than 170 research papers in many international journals and conferences, such as IEEE Transactions on Computers, IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Information Security and Forensics, and IEEE Journal on Selected Areas in Communications. He has published two books, Software Similarity and Classification (Springer) and Dynamic and Advanced Data Mining for Progressing Technological Development (IGI-Global). He has served as the Program/General Chair for many international conferences such as ICA3PP 12/11, IEEE/IFIP EUC 11, IEEE TrustCom 13/11, IEEE HPCC 10/09, IEEE ICPADS 08, NSS 11/10/09/08/07. He has been the PC member for more than 60 international conferences in distributed systems, networking, and security. He serves as the Associate Editor of IEEE Transactions on Computers, IEEE Transactions on Parallel and Distributed Systems, Security and Communication Networks (Wiley), and the Editor of Journal of Network and Computer Applications. He is the Coordinator, Asia for IEEE Computer Society Technical Committee on Distributed Processing (TCDP). He is a Senior Member of the IEEE.

# Keynote Speech

## **Professor Vijay Varadharajan**

Microsoft Chair Professor in Innovation in Computing  
Macquarie University, Australia

### **Security and Privacy Issues in the Changing Cyber Landscape With Cloud, Big Data and Internet of Technologies**

In this talk I will begin with a brief look at current trends in the technology scenery and some of the key security challenges that are impacting on business and society. In particular, on the one hand there have been tremendous developments in cyber technologies such as cloud, Big Data and Internet of Technologies. On the other hand, security threats in the cyber space have become more technically sophisticated, better organized and with the readily availability of easy to use tools enabling even ordinary users to conduct severe attacks. At the same time, the economic and social consequences of failing to detect and prevent these attacks are having major impact on businesses, individuals and the wider community.

In this talk, we will address some of the key security and privacy challenges in the cyber space, in particular with cloud data storage and provision of cloud services. We will also highlight some fundamental challenges involved with security and privacy issues in Big Data applications. The talk will then conclude by emphasizing the need for security professionals and researchers to rethink cyber security strategy to respond to threats with such emerging technologies.

**Short Bio:** Vijay Varadharajan is the Microsoft Chair Professor in Innovation in Computing in Australia at Macquarie University. He is also the Director of Advanced Cyber Security Research Centre (ACSRC) at Macquarie University. Previously, Vijay headed Security Research worldwide for Hewlett-Packard Labs based at European Headquarters at HP Labs Bristol, UK and US. He led and managed several research projects in UK, US, Germany, France and Italy and under his leadership several security research technologies were transferred into commercially successful HP products generating billions of dollars. He also headed the Technical Security Strategy Initiative at HP under the Senior Vice President of HP.

Vijay has had several visiting positions at different institutions over the years including at Microsoft Research Cambridge UK and Redmond, Visiting Professor at the Institute of Mathematical Sciences at National University of Singapore, Invited Professor at French National Research Labs (INRIA), Visiting Professor at eScience Institute, Edinburgh University, Invited Professor at the Indian Inst. of Technology and currently a Visiting Professor at the Chinese Academy of Sciences.

Vijay was an inaugural Board Member of International Advisors of TCPA, USA. From 2002, he is on the Trustworthy Computing Advisory Board at Microsoft, USA. From 2011, he is on the International Security Advisory Board SAP (Germany) and Research and Technology Advisory Board SAP (USA). Vijay is also a member of the Australian Government's Peak Security Advisory Group for the Minister of Broadband, Communications and Digital Economy, Australia, and a member of the expert ICT Advisory Panel at NSW State Government, Australia. He is a member of the Australian Academy of Science National Committee on Information and Communication Systems and was a member of the Australian Government Research Council College of Experts in Engineering, Mathematics and Informatics. He has also been the Technical Board Director of Computer Science at Australian Computer Society.

Vijay has been on the Editorial Board of several journals including the IEEE Transactions in Dependable and Secure Computing, IEEE Transactions in Information Forensics and Security, IEEE Transactions in Cloud Computing, the ACM Transactions on Information Systems Security, Springer International Journal of Information Security and IEEE Security and Privacy. Vijay has published over 350 papers in International Journals and Conferences, has co-authored and edited 9 books and holds 3 patents. Vijay is a Fellow of the British Computer Society, a Fellow of the IEE/IET, a Fellow of the Institute of Mathematics, UK, a Fellow of the Engineers Australia and a Fellow of the Australian Computer Society. He also holds a Senior Fellowship from the Australian Academy of Science.

## BDCloud/SocialCom/SustainCom 2014 Program

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### Session 1A:BDCloud 2014 (C.1.29) – Big Data and Cloud Computing

Session Chair: Felix Freitag

#### Efficient Storage of Big-Data for Real-Time GPS Applications

*Pavan Kumar Akulakrishna, Lakshmi J, Nandy SK*

#### Real Time Routing in Road Networks

*Aakriti Gupta, Lakshmi J., S. K. Nandy*

#### Tahoe-LAFS distributed storage service in Community Network Clouds

*Mennan Selimi, Felix Freitag*

#### Event pattern discovery on IDS traces of Cloud Services

*Shin-Ying Huang, Yennun Huang, Neeraj Suri*

#### A New Approach Based on Intelligent Water Drops Algorithm for Node Selection in Service-Oriented Wireless Sensor Networks

*Ahmadreza Vajdi, Gongxuan Zhang, Yongli Wang, Yang Zhao, Dongmei Liu, Tianshu Wang*

#### Automating Deployment of Customized Scientific Data Analytic Environments on Clouds

*Chao Jin, Wenjun Wu, Hui Zhang*

**Session 1B: SocialCom2014 (C.1.30) – Social Computing and Networking**

**Session Chair: Pinar Karagoz**

**Item Recommendation Using Collaborative Filtering in Mobile Social Games: A Case Study**

*Zhaojie Tao, Ming Cheung, James She, Ringo Lam*

**Empirical Analysis of Workflow Patterns for Use in Knowledge Advantage Machines**

*Daniel Sloan, Ramana Reddy, Sumitra Reddy*

**Utilizing Favorites Lists for Better Recommendations**

*Mustafa Abualsaud, Alex Thomo*

**Sentiment Enhanced Hybrid TF-IDF for Microblogs**

*Atakan Simsek, Pinar Karagoz*

**A Social and Popularity-based Tag Recommender**

*ModouGueye, Talel Abdessalem, Hubert Naacke*

**Personalized Recommender System on whom to Follow in Twitter**

*Masudul Islam, Chen Ding*

**Session 1C: SustainCom2014 (C.2.46) – Sustainable Computing and Communications**

**Session Chair: Prof. Laurent Lefevre**

**A high efficient real time data aggregation algorithm for WSNs**

*Tao Du, Shouning Qu, Jingwen Xu, Yinghua Cao*

**New Progress in Wind Prediction Based on Nonlinear Amendment**

*Yagang Zhang, Jingyun Yang, Kangcheng Wang, Zheng Zhao, Jinkang Liu, Yinding Wang*

**Comparison of the Robustness of RNN, MPC, and ANN Controller for Residential Heating System**

*Abbas Javed, Hadi Larijani, Ali Ahmadiania, Rohinton Emmanuel*

**Sustainable Software System Engineering**

*Stefanie Betz*

**Vehicular Travel Initiated Sustainable USB Mobile Charging And Travel Analytics System**

*Akshay Potnis, Harshavardhan Pandit, Siddharth Deshpande*

**Intelligent Mobility for Smart Cities: Driver Behaviour Models for Assessment of Sustainable Transport**

*Hussein Dia, Sakda Panwai*

**Session 2A: BDCloud 2014 (C.1.29) – Big Data and Cloud Computing**

**Session Chair: Ronald Nowling**

**A Domain-Driven, Generative Data Model for BigPetStore**

*Ronald Nowling, Jay Vyas*

**Dynamic Workload Balancing for HadoopMapReduce**

*Xiaofei Hou, Ashwin Kumar, Johnson Thomas*

**A Stop Planning Method over Big Traffic Data for Airport Shuttle Bus**

*Yan Liu, Guochao Jia, Xu Tao, Wanchun Dou*

**A neural network based pre-selection of Big Data in photon science**

*Daniel Becker*

**A Cloud Model for Distributed Transport System Integration**

*Regin Paul, Margaret Hamilton, Daryl D'Souza*

**Efficient Pre-Copy Live Migration with Memory Compaction and Adaptive VM Downtime Control**

*Guangyong Piao, Youngsup Oh, Baek-jae Sung, Chanik Park*

**Session 2B: SocialCom2014 (C.1.30) – Social Computing and Networking**

**Session Chair: Attila Kertesz**

**Engagement in Motion: Exploring Short Term Dynamics in Page-level Social Media Metrics**

*Benjamin Lucas, Ahmed Shamsul Arefin, Natalie Jane de Vries, Regina Berretta, Jamie Carlson, Pablo Moscato*



**Discovery of really popular friends from social networks**

*Carson Leung, Fan Jiang, Dacheng Liu*

**A Comparison of Common Users across Instagram and Ask.fm to Better Understand Cyberbullying**

*Homa Hosseinmardi, RahatIbn Rafiq, Shaosong Li, Zhili Yang, Richard Han, Shivakanat Mishra, Qin Lv*

**CORE Analysis for Efficient Shortest Path Traversal Queries in Social Graphs**

*Waqas Nawaz, Kifayat-Ullah Khan, Young-Koo Lee*

**Proposal of Alleviative Method of Community Analysis with Overlapping Nodes**

*Atsushi Tanaka*

**Reducing Noises For Recall Oriented Patent Retrieval**

*Wookey Lee, Justin JongSu Song, Carson Leung*

**Session 2C: SustainCom2014 (C.2.46) – Sustainable Computing and Communications**

**Session Chair: William Liu**

**Energy Modeling of Virtual Machine Replication Schemes with Checkpointing in Data Centers**

*Subrota Mondal, Jogesh Muppala*

**Defining Energy Consumption Plans for Data Querying Processes**

*Ricardo Gonçalves, João Saraiva, Orlando Belo*

**Eenergy-efficient User Association in HetNets: An Evolutionary Game Approach**

*Kaifeng Han, Dantong Liu, Yue Chen, KokKeong Chai*

**A Simplified Method of Measurement of Energy Consumption in Cloud and Virtualized Environment**

*I Made Murwantara, Behzad Bordbar*

**Power consumption of Erbium Doped Fibre Amplified links**

*Kerry Hinton, Peter Farrell, Peng Wang, Bipin Pilai An*

Thursday 4 December 2014			
08:00-18:00	Registration (Level 1, CB05C – Block C, Building 5)		
09:00-10:00	Keynote Address 4: (C.1.31) Speaker: Prof. Yanchun Zhang Title: Medical Big Data: Medical/Health Data Mining and Innovative Applications Chair: Prof. Muhammad Ali Babar		
10:00-11:00	Keynote Address 5: (C.1.31) Speaker: Prof. Albert Zomaya Title: Efficiency of Resource Abundant Clouds Chair: Prof. Jemal Abawajy		
11:00-11:30	Morning Tea (Level 1, CB05C – Block C, Building 5)		
11:30-12:30	Keynote Address 6: (C.1.31) Speaker: Prof. Yang Xiang Title: Application of Data Analytics: Security and Privacy in Social Networks Chair: Dr. Jun Shen		
12:30-13:30	Lunch (Level 1, CB05C – Block C, Building 5)		
13:30-15:30	Session 3A: BDCloud2014 (C.1.29)	Session 3B: SocialCom2014 (C.1.30)	Session 3C: SustainCom2014 (C.1.31)
15:30-16:00	Afternoon Tea (Level 1, CB05C – Block C, Building 5)		
16:00-18:00	Session 4A: BDCloud2014 (C.1.29)	Session 4B: SocialCom2014 (C.1.30)	Session 4C: GSN2014 (C.1.31)
19:00-23:00	Banquet (Cruise dinner. Boarding address: 32 The Promenade, King Street Wharf 5, Sydney, NSW 2000, Australia, Tel: (02) 8296 7202).  <b>NB: We will gather at Level 1, CB05C – Block C, Building 5, i.e. outside the keynote room at 7:00pm. Then, we walk for the banquet and enjoy the city sightseeing at the same time.</b>  <b>NB: Please bring your name badge. Otherwise, you may not be allowed for boarding.</b>		

**Session 3A: BDCloud 2014 (C.1.29) – Big Data and Cloud Computing**  
**Session Chair: Abdolreza Hajmoosaei**

**Practical Analysis of Big Acoustic Sensor Data for Environmental Monitoring**

*Anthony Truskinger, Mark Cottman-Fields, Phil Eichinski, Michael Towsey, Paul Roe*

**RAID-Aware SSD: Improving the Write Performance and Lifespan of SSD in SSD-based RAID-5 System**

*Xiaoquan Wu, Nong Xiao, Fang Liu, Zhiguang Chen*

**Fault Tolerant Erasure Coded Repliation for HDFS Based Cloud Storage**

*Aye Chan Ko*

**OPTIMAL DISTRIBUTED DATA WAREHOUSE SYSTEM ARCHITECTURE**

*Mehdi Kashfi, Abdolreza Hajmoosaei*

**Secure Index Construction for Privacy-Preserving Large-scale Image Retrieval**

*Bo Cheng, Li Zhuo, Yu Bai, YuanfanPeng*

**A Paralleled Big Data Algorithm with MapReduce Framework for Mining Twitter Data**

*Bing Li, Keith C.C. Chan*

**Session 3B: SocialCom2014 (C.1.30) – Social Computing and Networking**

**Session Chair:** Babak Abedin

**Set-based Unified Approach for Attributed Graph Summarization**

*Kifayat Ullah Khan, Waqas Nawaz, Young-Koo Lee*

**Participatory Sensor Networks as Sensing Layers**

*Thiago Silva, Pedro Vaz de Melo, Jussara Almeida, Aline Viana, Juliana Salles, Antonio Loureiro*

**SocioPath: Protecting privacy by self-sufficient data distribution in user-centric networks**

*Fabian Hartmann, Ingmar Baumgart*

**Social-based Multi-label Routing in Delay Tolerant Networks**

*Song Linmao, Li Yang, Fan Xiumei*

**Efficient Event Detection for the Blogosphere**

*Patrick Hennig, Philipp Berger, Daniel Kurzynski, Hannes Rantzs, Christoph Meinel*

**Cluster Labeling for the Blogosphere**

*Patrick Hennig, Philipp Berger, Claus Steuer, Christia Wuerz, Christoph Meinel*

**Session 3C: SustainCom2014 (C.1.31) – Sustainable Computing and Communications**

**Session Chair:** William Liu

**Dependability and Resource Optimization Analysis for Smart Grid Communication Networks**

*Ming Xiang, Sotharith Tauch, William Liu*

**A User Profile-Aware Policy-Based Management Framework for Greening the Cloud**

*Fadi Alhaddadin, William Liu, Jairo Gutierrez*

**A Low Cost Implementation of Home Area Networks for Home Energy Management Systems**

*Saira Hussain, Muhammad Ikram, Naveed Arshad*

**A Generic and Extensible Framework for Monitoring Energy Consumption of OpenStack Clouds**

*Francois Rossignaux, Jean-Patrick Gelas, Laurent Lefevre, Marcos Dias de Asuncao*

**Towards Generalizing "Big.Little" for Energy Proportional HPC and Cloud Infrastructures**

*Violaine Villebonnet, Georges DaCosta, Laurent Lefevre, Jean-Marc Pierson, Patricia Stolf*

**Session 4A: BDCloud 2014 (C.1.29) – Big Data and Cloud Computing**

**Session Chair:** Wei (Daniel) Sun

**Data-Intensive Workflow Optimization based on Application Task Graph Partitioning in Heterogeneous Computing Systems**

*Saima Gulzar Ahmad, Chee Sun Liew, M. Mustafa Rafique, Ehsan Ullah Munir, Samee U. Khan*

**Remote Monitoring System Enabling Cloud Technology upon Smart Phones and Inertial Sensors for Human Kinematics**

*M. Sajeewani Karunarathne, Samuel A. Jones, Samitha W. Ekanayake, Pubudu N. Pathirana*

**High-Performance Processing of Large-Scale Parallel Applications in Heterogeneous Cloud Computing Data Centers**

*Uchechukwu Awada, Keqiu Li, Keqin Li*

**Cloud-based Educational Big Data Application of Apriori algorithm and K-Means Clustering algorithm based on Students' Information**

*Jiaqu Yi, Sizhe Li, Maomao Wu, H.H. Au Yeung, Wilton, W.T. Fok, Ying Wang, Fang Liu*

**Shared I/O scheduling in cloud for structured data processing**

*Baoquan Zhang, Jingmei Li, Tao Xu, Dongsheng Wang, Nan Ding*

**Assessment of DM-Cache running on virtual Linux**

*Jaemyoun Lee, Kyungtae Kang*

**Session 4B: SocialCom2014 (C.1.30) – Social Computing and Networking**  
**Session Chair: Bing Li**

**An Enhanced Content-Based Recommender System for Academic Social Networks**  
*Vala Ali Rohani, Sameer Kumar, Kuru Ratnavelu*

**Friend News System: A Modern Implementation of Usenet over Social VPNs**  
*Yasushi Shinjo, Kunyao Xiao, Naoki Kainuma, Daiyuu Nobori, Akira Sato*

**Social Network Observatory for Innovation in Enterprise-Employee Engagement**  
*Jay Ramanathan, Zhe Xu*

**Characterization of the Use of Social Media in Natural Disasters: A Systematic Review**  
*Babak Abedin, Abdul Babar, Alireza Abbasi*

**Incorporating User Reviews as Implicit Feedback for Improving Recommender Systems**  
*Yasamin Heshmat Dehkordi, Alex Thomo, Sudhakar Ganti*

**A Community-Structure based adaptively optimized link prediction algorithm**  
*Zhaojun Yang, Jiayu Song, Zhaolong Huang, Xuzhen Zhu, Hui Tian*

**Session 4C: GSN2014 (C.1.31)**  
**Session Chair: Wookey Lee**

**A Multi-dimensional Analysis and Data Cube Model for Unstructured Text and Social Media**  
*Suan Lee, Namsoo Kim and Jinho Kim*

**A Person Identification Method in CUG Using Voice Pitch Analysis**  
*So-Hyun Park, Young-Ho Park, Aziz Nasridinov, Joo-Yeoun Lee*

**Path Pattern Query Processing on Large Graphs**  
*Yiyuan Bai and Chaokun Wang*

**A GPU-Accelerated Density-Based Clustering Algorithm**  
*Woong-Kee Loh and Young-Kuk Kim*

**On the Graph Decomposition**  
*Yangjun Chen and Yibin Chen*

Friday 5 December 2014			
08:00-18:00	Registration (Level 1, CB05C – Block C, Building 5)		
09:00-10:00	Keynote Address 7: (C.1.31) Speaker: Prof. Jemal Abawajy Title: Hybrid Consensus Pruning of Ensemble Classifiers for Big Data Malware Detection Chair: Dr. Javid Taheri		
10:00-11:00	Keynote Address 8: (C.1.31) Speaker: Prof. Muhammad Ali Babar Title: Understanding and Addressing Architectural Challenges of Cloud-Based Systems Chair: Prof. Wanchun Dou		
11:00-11:30	Morning Tea (Level 1, CB05C – Block C, Building 5)		
11:30-12:30	Keynote Address 9: (C.1.31) Speaker: Prof. Vijay Varadharajan Title: Security and Privacy Issues in the Changing Cyber Landscape With Cloud, Big Data and Internet of Technologies Chair: A/Prof Jinjun Chen		
12:30-13:30	Lunch (Level 1, CB05C – Block C, Building 5)		
13:30-15:30	Session 5A: BDCloud2014 (C.1.29)	Session 5B: SocialCom2014 (C.1.30)	Session 5C: SustainCom2014 and PriSec2014 (C.1.31)
15:30-16:00	Afternoon Tea (Level 1, CB05C – Block C, Building 5)		
16:00-18:00	Session 6A: BDCloud2014 (C.1.29)	Session 6B: SocialCom2014 (C.1.30)	Session 6C: BDCloud2014 (C.1.31)

**Session 5A: BDCloud 2014 (C.1.29) – Big Data and Cloud Computing**  
**Session Chair: Titus Damaiyanti**

**Quantifying Failure Risk of Version Switch for Rolling Upgrade on Clouds**

*Daniel Sun, Len Bass, Alan Fekete, Vincent Gramoli, AnBinh Tran, Sherry Xu, Liming Zhu*

**Multilingual Sentiment Classification on Large Textual Data**

*Jantima Polpinij*

**Congestion Score Computation of Big Traffic Data**

*Jiwan Lee, Bonghee Hong*

**A Hadoop-Based Output Analyzer for Large-Scale Simulation Data**

*Joonho Park, Kangsun Lee*

**Variation-Aware Resource Allocation Evaluation for Cloud Workflows using Statistical Model Checking**

*Saijie Huang, Mingsong Chen, Xiao Liu, Dehui Du, Xiaohong Chen*

**Extracting Trends of Traffic Congestion Using a NoSQL Database**

*Titus Damaiyanti, Ardilmawan, Joonho Kwon*

**Protecting access confidentiality with data distribution and swapping**

*Sabrina De Capitani di Vimercati, Sara Foresti, Stefano Paraboschi, Gerardo Pelosi, Pierangela Samarati*

**Session 5B: SocialCom2014 (C.1.30) – Social Computing and Networking**

**Session Chair: Nazanin Borhan**

**An Improved Latent Dirichlet Allocation Model for Hot Topic Extraction**

*guolongliu, yingzhu, feng tang, Li Li*

**“Hey #311, come clean my street!” A Spatio-temporal Sentiment Analysis of Twitter Data and 311 Civil Complaints**

*Ryan Eshleman, Hui Yang*

**Gauging Heterogeneity in Online Consumer Behaviour Data: A Proximity Graph Approach**

*Natalie Jane de Vries, Ahmed Shamsul Arefin, Pablo Moscato*

**Centralized payment system using social networks account**

*Alireza Beikverdi, InHwan Kim, JooSeok Song*

**Identifying communities of trust and confidence in the charity and not-for-profit sector: a memetic algorithm approach**

*Leila MoslemiNaeni, Natalie Jane de Vries, Rodrigo Reis, Ahmed ShamsulArefin, Regina Berretta, Pablo Moscato*

**Foto2Events: From Photos to Event Discovery and Linking in Online Social Networks**

*Eliana J. Raad, Richard Chbeir*

**Session 5C: SustainCom2014 and PriSec 2014 (C.1.31)**

**Session Chair: Deepak Puthal**

**A scheme for software defined ORS satellite networking**

*Jing Feng, Lei Jiang, Ye Shen, WeiJun Ma, Min Yin*

**Energy-Efficiency based resource allocation for D2D communication and cellular networks**

*Layanah ALWREIKAT, Rong CHAI, Osama Abu-Sharkh*

**Blind Frequency Hopping Spectrum Estimation: A Bayesian Approach**

*Lifan Zhao, Lu Wang, Guoan Bi, Haijian Zhang*

**Risk Prediction System based on Risk Prediction Model with Complex Event Processing**

*Yoon-Ki Kim, Chang-Sung Jeong, Chang-Sung Jeong*

**Fine Grain Cross-VM Attacks on Xen and VMware**

*Gorkalrazoqui, Mehmet SinanInci, Thomas Eisenbarth and Berk Sunar*

**On the Difficulty of Securing Web Applications using CryptDB**

*Ihsan Akin and Berk Sunar*

**Realizing Purpose-Based Privacy Policies Succinctly via Information-Flow Labels**

*Naren N and Rudrapatna Shyamasundar*

**Session 6A: BDCloud 2014 (C.1.29) – Big Data and Cloud Computing**

**Session Chair: Waldemar Hummer**

**Context-Aware Data Prefetching in Mobile Service Environments**

*Waldemar Hummer, Stefan Schulte, Philipp Hoenisch, Schahram Dustdar*

**A Resource Allocation Strategy for Multimedia Cloud Using Game Theory**

*Yirui Li, Li Zhuo*

**Evaluation of Linux I/O Schedulers for Big Data Workloads**

*Abdelmounaam Rezgui, Matthew White, Sami Rezgui, Zaki Malik*

**A Data Science Solution for Mining Interesting Patterns from Uncertain Big Data**

*Carson Leung, Richard K. MacKinnon, Fan Jiang*

**Improve User Experience on Web for Machine Translation System using Storm**

*Mukul Sinha, Pawan Kumar, Ashutosh Kumar, Rashid Ahmad*

**A study on BPaaS with TCO model**

*Thi My Hanh Le, Luis Alfredo Alfaro, Huyng Rim Choi, Min Je Cho, ChaeSoo Kim*

**Detection of Web Spambot in the Presence of Decoy Actions**

*Vida Ghanaei, Costas S. Iliopoulos and Solon P. Pissis*

**Towards Adaptable Data Farming in Clouds**

*Dariusz Krol, Jacek Kitowski*

**Session 6B: SocialCom2014 (C.1.30) – Social Computing and Networking**  
**Session Chair: Layanah Al-Wreikat**

**The Use of a Social Networking Site in the Facilitation of Internationalization in Higher Education: A Case Study Using the Actor Network Theory Perspective**

*Kim Keith, Jean-Paul Van Belle*

**Influence level-based Sybil Attack Resistant Recommender Systems**

*Giseop Noh, Hayoung Oh*

**Video annotation with aggregate social network data**

*Georgios Palaiochrassas, Kleopatra Konstanteli, Athanasios Voulodimos, Konstantinos Psychas, David Salama Osborne, Efstathia Chatzi, Theodora Varvarigou*

**Cognition based Semantic Annotation for Web Images**

*Jinbiao Jing, Xiangfeng Luo, Junyu Xuan*

**Perception-based Resilience: Accounting for the Impact of Human Perception on Resilience Thinking**

*Roberto Legaspi, Hiroshi Maruyama, Rungsiman Nararatwong, Hitoshi Okada*

**The Potential Use of Multi-Agent and Hybrid Data Mining Approaches in Social Informatics for Improving E-health Services**

*Dharmendra Sharma, Fariba Shadabi*

**Behavioral Strategies in Online Forums with Different Feedback Types**

*Sanja Tanasijevic, Klemens Böhm*

**Uncovering Diffusion in Academic Publications using Model-Driven and Model-Free Approaches**

*Minkyung Kim, David Newth, Peter Christen*

**How Social Identity May Matter Most in Brand Crisis Management**

*Rungsiman Nararatwong, Kotaro Okazaki, Hitoshi Okada, Katsumi Inoue*

**A Dynamic Social Network Experiment with Multi-Team Systems**

*Andrew Pilny, AlexYahja, Scott Poole, Melissa Dobosh*

**Session 6C: BDCloud 2014 (C.1.31) – Big Data and Cloud Computing**

**Session Chair: Kamil Figiela**

**A framework for tracking reliable data in the cloud for port logistics**

*Luis Alfredo Alfaro, Thi My Hanh Le, Huynh Rim Choi, Min Je Cho, ChaeSoo Kim*

**A Multi-dimensional Weighting Method for Historical Records in Cloud Service Evaluation**

*Lianyong Qi, Jiancheng Ni, Xiaona Xia, Hua Wang, Chao Yan*

**Distributed Data Stream Processing with Onix**

*Roman Y. Shtykh, Toshihiro Suzuki*

**Interoperating Cloud Services for Enhanced Data Management**

*Attila Kertesz*

**UDaaS: A Cloud-based URL-Deduplication-as-a-Service for Big Datasets**

*Shams Zawoad, Ragib Hasan, Gary Warner, and Anthony Skjellum*

**Hybrid Cache Architecture Using Big Data Analysis for Content Delivery Network**

*Tai-Yeon Ku, Hoon Choi*

**Modeling, Optimization and Performance Evaluation of Scientific Workflows in Cloud**

*Kamil Figiela and Maciej Malawski*

**Using Accumulo for Graph Twiddling**

*Darren Webb*

# BDCloud2014 Organizing and Program Committees

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Mustafa Canim	IBM Research, USA
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Rong Ge	Marquette University, USA
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Varia, Jinesh	Amazon, USA
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Yu Chen	State University of New York - Binghamton, USA
Yu Jiong	Xinjiang University, China
Yufeng Wang	Nanjing University of Posts and Telecommunications, China
Zhaobin Liu	Dalian Maritime University, China
Zhiwen Yu	Northwestern Polytechnical University, China
Zibin Zheng (Ben)	The Chinese University of Hong Kong, Hong Kong, China

# SocialCom2014 Organizing and Program Committees

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Jiming Liu, Hong Kong Baptist University, China  
Jian Yang, Macquarie University, Australia

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Surya Nepal, CSIRO, Australia

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Li Li, Southwest University, China

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Xiangfeng Luo, Shanghai University, China  
Lei Li, Hefei University of Technology, China

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Adrian David Cheok, National University of Singapore, Singapore  
Wesley Chu, University of California, USA  
Igor Hawryszkiewicz, University of Technology, Sydney, Australia  
Irwin King, The Chinese University of Hongkong, China  
Wookey Lee, INHA University, Korea  
Shaun Lawson, University of Lincoln, UK  
Jiming Liu, Hong Kong Baptist University, China  
Jianhua Ma, Hosei University, Japan  
Craig Standing, Edith Cowan University, Australia  
V.S. Subrahmanian, University of Maryland, USA  
Feiyue Wang, Chinese Academia of Science, China  
Laurence T. Yang, St Francis Xavier University, Canada (Chair)  
John Yen, Pennsylvania State University, USA

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Nazanin Borhan, University of Technology Sydney, Australia

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Alfredo Cuzzocrea	ICAR-CNR and University of Calabria, Italy
Angelo Cangelosi	University of Plymouth, UK
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Eunice Santos	University of Texas at El Paso, USA
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Guido Barbian	Leuphana University Lüneburg, Germany
Gang Li	Deakin University, Australia

Hamid Rabiee  
 Haifeng Shen  
 Hsin-Chang Yang  
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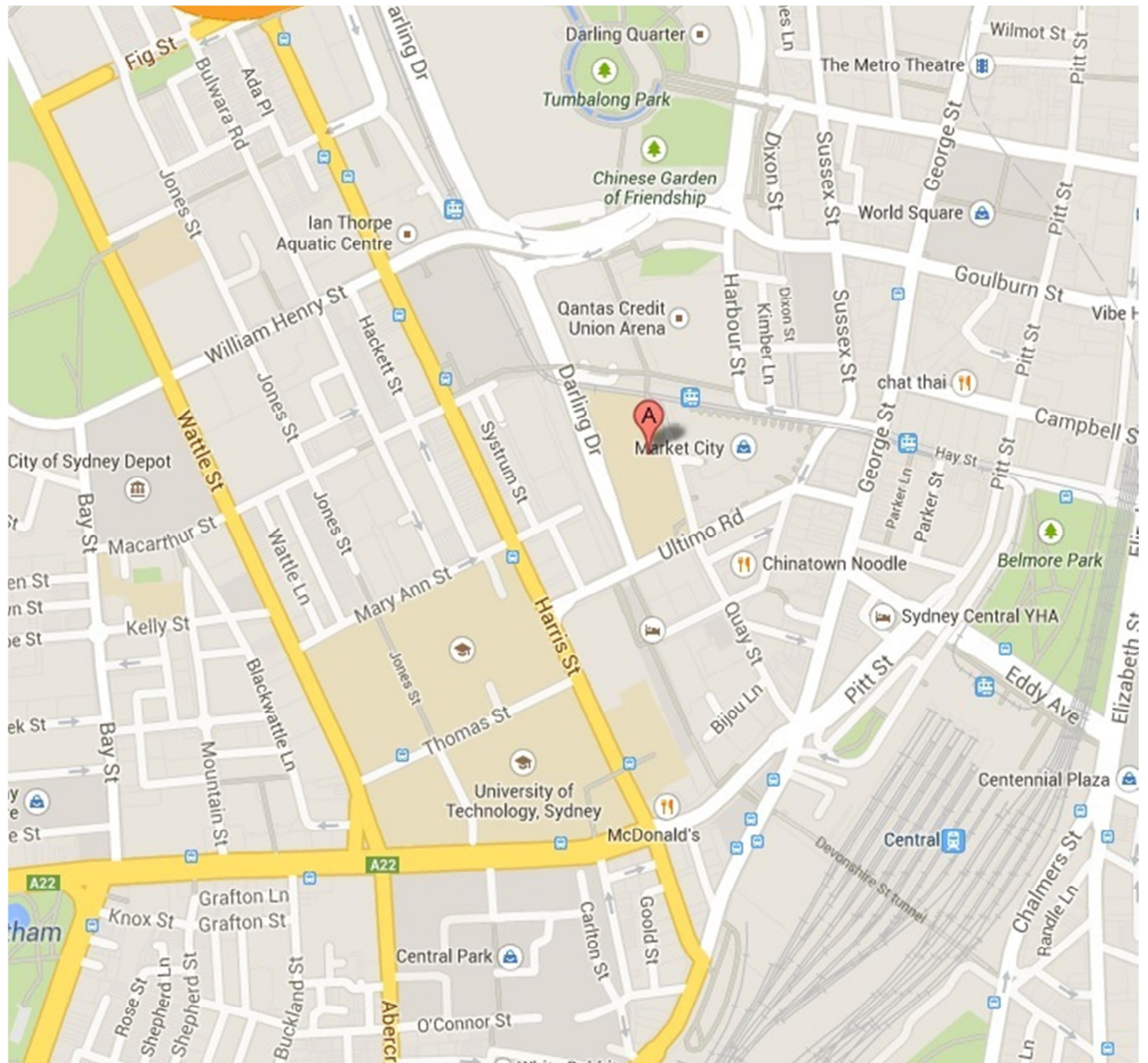
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## APPendix 1. Location of conference venue:

Address: Level 1, Block C, UTS Building 05, 1-59 Quay Street, Haymarket, NSW 2000





**Appendix 2. Banquet boarding address (20min walk from conference venue):**  
Australian Cruise Group – Magistic Sail  
32 The Promenade, King Street Wharf 5, Sydney, NSW 2000, Australia  
Tel: (02) 8296 7202

