

The 8th IEEE/IFIP International Conference on Embedded and  
Ubiquitous Computing (EUC 2010)

The 13th IEEE International Conference on Computational  
Science and Engineering (CSE 2010)

The 6th IEEE/IFIP International Symposium on Trusted  
Computing and Communications  
(TrustCom 2010)

EUC 2010 Workshops, SEC-10 and WMSC-10

# ADVANCED PROGRAM



11 – 13 December 2010  
Hong Kong SAR China

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# PROGRAM OF CSE-10/EUC-10/TRUSTCOM-10/WORKSHOPS-10 AT A GLANCE

## December 10 (Friday)

14:00-18:00	<b>Registration (PQ703)</b>
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## December 11 (Saturday)

08:00-08:15	Opening Remarks (Chiang Chen Studio Theatre)				
08:15-09:05	<b>Keynote 1: Context Sensing for Ubiquitous Computing</b> by <b>Hans Gellersen</b> (Chiang Chen Studio Theatre)				
09:05-10:00	<b>Keynote 2: Multi-touch HCI: A hardware and software co-evolution</b> by <b>Chia Shen</b> (Chiang Chen Studio Theatre)				
10:00-10:20	Coffee/Tea Break				
10:20-12:15	<b>CSE-10</b> Session A11 (Chiang Chen Studio Theatre)	<b>EUC-10</b> Session B11 (Room M104)	<b>TrustCom-10</b> Session C11 (Room M108)	<b>EUC10-Workshop</b> Session D11 (Room M111)	<b>CSE-10</b> Session A21 (Room M110)
12:15-13:45	<b>Lunch at Color Crystal Restaurant</b>				
13:45-15:30	<b>CSE-10</b> Session A12 (Lecture Theatre PQ303)	<b>EUC-10</b> Session B12 (Room M104)	<b>TrustCom-10</b> Session C12 (Room P309)	<b>EUC10-Workshop</b> Session D12 (Room M111)	<b>SEC-10</b> Session E12 (Room M110)
15:30-15:50	Coffee/Tea Break				
15:50-17:20	<b>CSE-10</b> Session A13 (Lecture Theatre PQ303)	<b>EUC-10</b> Session B13 (Room M104)	<b>TrustCom-10</b> Session C13 (Room P309)	<b>EUC10-Workshop</b> Session D13 (Room M111)	<b>SEC-10</b> Session E13 (Room M110)
18:00-21:00	<b>Cocktail Reception, 6 pm - 9pm, at 5<sup>th</sup> Floor, Communal Building., Staff Club Restaurant, The Hong Kong Polytechnic University</b>				

**December 12 (Sunday)**

08:15-09:05	<b>Keynote 3: Finding the Real Source of Internet Crimes</b> by Wanlei Zhou (Chiang Chen Studio Theatre)				
09:05-10:00	<b>Keynote 4: Trends in Post-Petascale Computing</b> by Mitshuhisa Sato (Chiang Chen Studio Theatre)				
10:00-10:20	<b>Coffee/Tea Break</b>				
10:20-12:15	<b>CSE-10</b> Session A14 (Chiang Chen Studio Theatre)	<b>EUC-10</b> Session B14 (Room M104)	<b>TrustCom-10</b> Session C14 (Room M108)	<b>EUC10-Workshop</b> Session D14 (Room M111)	<b>SEC-10</b> Session E14 (Room M110)
12:15-13:45	<b>Lunch at Color Crystal Restaurant</b>				
13:45-15:30	<b>CSE-10</b> Session A15 (Lecture Theatre N002)	<b>EUC-10</b> Session B15 (Room M104)	<b>TrustCom-10</b> Session C15 (Room M108)	<b>EUC10-Workshop</b> Session D15 (Room M111)	<b>SEC-10</b> Session E15 (Room M110)
15:30-15:50	<b>Coffee/Tea Break</b>				
15:50-17:20	<b>CSE-10</b> Session A16 (Lecture Theatre N002)	<b>EUC-10</b> Session B16 (Room M104)	<b>TrustCom-10</b> Session C16 (Room M108)	<b>EUC10-Workshop</b> Session D16 (Room M111)	<b>SEC-10</b> Session E16 (Room M110)
18:00-22:30	<b>Conference Banquet, 6 pm - 10:30 pm, at Hung Kee Restaurant</b>				

<b>December 13 (Monday)</b>					
08:15-10:00	<b>CSE-10</b> Session A17 (Chiang Chen Studio Theatre)	<b>EUC-10</b> Session B17 (Room M104)	<b>TrustCom-10</b> Session C17 (Room M108)	<b>EUC10-Workshop</b> Session D17 (Room M111)	<b>WMSC-10</b> Session E17 (Room M110)
10:00-10:20	<b>Coffee/Tea Break</b>				
10:20-12:15	<b>CSE-10</b> Session A18 (Chiang Chen Studio Theatre)	<b>EUC-10</b> Session B18 (Room M104)	<b>TrustCom-10</b> Session C18 (Room M108)	<b>EUC10-Workshop</b> Session D18 (Room M111)	<b>WMSC-10</b> Session E18 (Room M110)
12:15-13:45	<b>Lunch at Choi Fook Restaurant</b>				
13:45-15:30	<b>CSE-10</b> Session A19 (Lecture Theatre N002)	<b>EUC-10</b> Session B19 (Room M104)	<b>TrustCom-10</b> Session C19 (Room M108)	<b>EUC10-Workshop</b> Session D19 (Room M111)	<b>WMSC-10</b> Session E19 (Room M110)
15:30-15:50	<b>Coffee/Tea Break</b>				
15:50-17:20	<b>CSE-10</b> Session A20 (Lecture Theatre N002)	<b>EUC-10</b> Session B20 (Room M104)	<b>EUC-10</b> Session B21 (Room M108)	<b>EUC10-Workshop</b> Session D20 (Room M111)	<b>WMSC-10</b> Session E20 (Room M110)

## The 8<sup>th</sup> IEEE/IFIP International Conference on Embedded and Ubiquitous Computing (EUC-10)

### Keynote: Context Sensing for Ubiquitous Computing

*Prof. Hans Gellersen, Lancaster University, UK*

### About the keynote speaker



Hans Gellersen is a Professor of Interactive Systems in the School of Computing and Communications at Lancaster University, UK. He has a long-standing track record in ubiquitous computing where his work is focused on context sensing, location systems and user interface technologies. Hans has led European research collaborations on topics such as smart objects and relative positioning and is widely cited for work on augmentation of everyday objects, multi-modal sensing of context, and novel devices for interaction. His recent work includes research on eye movement as a context for ubiquitous computing, ad hoc location systems for use in emergency response, and sensor-based device authentication. Hans is closely involved with the International Conference on Ubiquitous Computing, which he founded in 1999, and the International Conference on Pervasive Computing, for which he served as Chair of the Steering Committee from 2007-2009. He is also an Editorial Board Member of IEEE Pervasive Computing Magazine, and an Editor of the Journal on Personal and Ubiquitous Computing. Hans holds a PhD in Computer Science from the University of Karlsruhe, Germany.

### Summary:

Whereas digital worlds were once seen as something largely separate from the everyday physical world, they are now increasingly interwoven. Context sensing has become a central feature of mobile and ubiquitous computing systems, employing sensors to observe real world activity, and data analysis to extract contextual information. This talk briefly reflects on how context sensing has evolved in ubiquitous computing. It then discusses research projects at Lancaster that, in very different ways, employ embedded sensing and analysis of movement: of devices, for the purposes of secure pairing; of users, for tracking in unknown environments; and of people's eyes, for activity inference.

## The 8<sup>th</sup> IEEE/IFIP International Conference on Embedded and Ubiquitous Computing (EUC-10)

### Keynote: Multi-touch HCI : A hardware and software co-evolution

*Prof. Chia Shen, Harvard University, USA*

### About the keynote speaker



Chia Shen is Director of the SDR Lab and Senior Research Fellow at the School of Engineering and Applied Sciences (SEAS) at Harvard University. She was a Senior Research Scientist at MERL (the Mitsubishi Electric Research Labs) in Cambridge, Massachusetts, where she also served as Associate Director of the Research Lab from 2003 to 2006. She is the Principle Investigator of a new National Science Foundation - funded \$2.3M project "Life on Earth". For the past ten years, much of her research has focused on multi-touch tabletop computing, on its user interface and interaction techniques, and on its utility, benefits, pitfalls, and applications. DiamondSpin, developed at MERL under her direction during 2001–2003, is the first open toolkit made available to the tabletop research community and academic institutes throughout the world for the construction of experimental multi - user tabletop concepts and applications. Her co-authored paper on the PDH (Personal Digital Historian), a tabletop story-sharing system, has been ranked as the most cited paper for the 2002 ACM CSCW (ACM Conference on Computer Supported Cooperative Work). Chia Shen is on the Editorial Board of ACM Computers in Entertainment, and on the Steering Committee of the ACM International Conference on Interactive Tabletops and Surfaces.

### Summary:

The emerging growth of multi-touch technology, from its birth in innovators' sandboxes, to embryonic prototypes in isolated labs, to today's world-wide commercial availability, reflects a journey of technology-enabled HCI. At the core is the inseparable process of HCI hardware and software coevolution that has enabled the expansion of the multi-touch horizon in terms of device innovation and the associated user population and demographics. The first part of this talk illustrates the R&D trajectory of this HCI micro-world by looking back at a sample set of research projects that have marched hand-in-hand with technological advances in this journey. The second part of the talk then looks ahead to describe ongoing multi-disciplinary research projects in the Scientists' Discovery Room Lab at Harvard University that are set out to push the HCI application boundaries of this expanding horizon.

## The 2010 International Symposium on Trusted Computing and Communications (TrustCom-10)

### Keynote: *Finding the Real Source of Internet Crimes*

*Prof. Wanlei Zhou, Deakin University, Australia*

### About the keynote speaker



Wanlei Zhou received the B. Eng (Computer Science and Engineering) and M. Eng (Computer Science and Engineering) degrees from Harbin Institute of Technology, Harbin, China, in 1982 and 1984, respectively, and the Ph.D. degree from the Australian National University, Canberra, Australia, in 1991. He also received a DS.c. degree (a higher Doctorate degree) from Deakin University in 2002 for his substantial contribution to knowledge and authoritative standing in the field of distributed computing. He is currently the Chair Professor in Information Technology and Head of School, School of Information Technology, Deakin University. Before joining Deakin University, he has been a system programmer in HP at Massachusetts, USA; a lecturer in Monash University, Melbourne, Australia; and a lecturer in National University of Singapore, Singapore. His research interests include theory and practical issues of building distributed systems, security and reliability of computer networks, bioinformatics, and e-learning. Professor Zhou has published more than 200 papers in refereed international journals and refereed international conferences proceedings. He has also edited 5 books and authored 1 book. He has also chaired a number of international conferences. He is also a Senior Member of the IEEE.

### Summary:

Internet crimes can result in serious consequences such as disrupting critical infrastructure; causing significant financial losses; and threatening public life. Although a number of countermeasures and legislations against Internet crimes are developed, the crimes are still on the rise. One critical reason is that researchers and law enforcement agencies still can not answer a simple question easily: who and where is the real source of Internet crimes? With the support of a number of Australian Research Council grants, my research group has developed effective ways to discover the real source of Internet crimes. In this talk, I will try to explain how we achieved this research goal through traceback schemes that we have developed. This talk will be based on the following two papers:

1. Shui Yu, Wanlei Zhou, Robin Doss, and Weijia Jia, "Traceback of DDoS Attacks using Entropy Variations", Accepted by IEEE Transactions on Parallel and Distributed Systems, accepted 09/2009. Published online 30 Apr. 2010, <http://doi.ieeecomputersociety.org/10.1109/TPDS.2010.97>.
2. Yang Xiang, Wanlei Zhou, and Minyi Guo, "Flexible Deterministic Packet Marking: An IP Traceback System to Find the Real Source of Attacks", IEEE Transactions on Parallel and Distributed Systems, vol. 20, no. 4, pp. 567-580, April 2009.

## Keynote: Trends in Post-Petascale Computing

*Prof. Mitsuhsisa Sato, University of Tsukuba and RIKEN AICS, Japan*

### About the keynote speaker



Mitsuhsisa Sato received the M.S. degree and the Ph.D. degree in information science from the University of Tokyo in 1984 and 1990. He was a senior researcher at Electrotechnical Laboratory from 1991 to 1996, and a chief of Parallel and distributed system performance laboratory in Real World Computing Partnership, Japan, from 1996 to 2001. Currently, he is a professor of Graduate School of Systems and Information Engineering, University of Tsukuba. He is a director of Center for computational sciences, University of Tsukuba since 2007. He is a research team leader on programming environment in AISC (Advanced institute of Computational Science) of RIKEN since 2010. His research interests include computer architecture, compilers and performance evaluation for parallel computer systems, OpenMP and parallel programming. Dr. Sato is a member of IEEE CS and IPSJ (the Information Processing Society of Japan), JSIAM.

### Summary:

Computational science through applications of high performance computing enables us to explore uncharted fields of science, and has now become indispensable for the development of science and technology of the 21st century. High performance computing systems used for cutting-edge of advanced computational science have reached to petaflops (a million billion calculations per second) performance, and will be targeted to the next generation of exascale systems as a post petascale system. For some years ahead, peta-scale high performance computing systems which have over peta-FLOPS performance, are being built and installed in US, Japan and Europe. In Japan, the next generation supercomputer (NGS) project lead by RIKEN is one of the most ambitious projects in the world to install a 10 petaflop system by 2012.

Post-petascale systems and future exascale computers are expected to have an ultra large-scale and highly hierarchical architecture with nodes of many-core processors and accelerators. That implies that existing systems, language, programming paradigms and parallel algorithms should be reconsidered. To manage these ultra large-scale parallel systems, we require new adaptive runtime systems, allowing to manage huge distributed data, minimizing the energy consumption, and with fault resilient properties. Moreover, accelerating technology such as GPGPU and many-core processors, is a crucial domain for post petascale computing. Their efficient programming in these large scale systems is also an important challenge. Recently the International exascale software project (IESP) was organized to paves the road to the future exascale computing, as a consequence of Post-petascale researches.

In this talk, I will talk about trends in post-petascale computing with the Japanese NGS project, and address challenges, constraints and opportunities to exascale computing in future.

## A. SESSIONS AND PAPERS IN CSE-10

### The 2010 IEEE International Conference on Computational Science and Engineering (CSE-10)

#### Keynote: Trends in Post-petascale computing (Chair: Hai Jiang)

Prof. Mitsuhsa Sato, University of Tsukuba and RIKEN AICS, Japan

#### Session A11: Mobile Computing and Wireless Communications I (Chair: Xingang Liu)

Adaptive Data Compression in Wireless Body Sensor Networks

*Kun Hua, Honggang Wang, Wei Wang, and Shaoen Wu*

Modeling and Prolonging Techniques on Operational Lifetime of Wireless Sensor Networks

*Fuu-Cheng Jiang, Chao-Tung Yang, Shih-Meng Teng, Hsiang-Wei Wu, and Yi-Ju Chiang*

Performance Evaluation of an Adaptive Congestion Avoidance Algorithm for IEEE 802.15.4

*Ki-Chul Noh, Seung-Yeon Lee, Youn-Soon Shin, Kang-Woo Lee, Jong-Suk Ahn*

Augmented Reality System Design and Scenario Study for Location-Based Adaptive Mobile Learning

*William Chang and Qing Tan*

#### Session A12: Cluster, Grid and Cloud Computing (Chair: Kuan-Chou Lai)

ColorCom2: A Transparent Co-located Virtual Machine Communication Mechanism

*Liang Zhang, Yuebin Bai, Ming Liu, and Hanwen Xu*

QAFT: A QoS-Aware Fault-Tolerant Scheduling Algorithm for Real-Time Tasks in Heterogeneous Systems

*Xiaomin Zhu, Jianghan Zhu, Manhao Ma, and Dishan Qiu*

A Semi-structured Overlay for Multi-attribute Range Queries in Cloud Computing

*You-Fu Yu and Kuan-Chou Lai*

#### Session A13: CSE Applications I (Chair: Joseph Tan)

Revealing Feasibility of FMM on ASIC: Efficient Implementation of N-Body Problem on FPGA

*Zhe Zheng, Yongxin Zhu, Xu Wang, Zhiqiang Que, Tian Huang, Xiaojing Yin, Hui Wang, Guoguang Rong, and Meikang Qiu*

A Hybrid Harmony Search Method Based on OBL

*X. Z. Gao, X. Wang, and S. J. Ovaska*

Gateway to Quality Living for the Elderly: Charting an Innovative Approach to Evidence-Based E-Health

Technologies for Serving the Chronically Ill

*Joseph Tan, Patrick C. K. Hung, Michael Dohan, Thomas Trojer, Matthias Farwick, and Jayshiro Toshiro*

#### Session A14: Distributed and Parallel Computing II (Chair: Yuanquan Zhang)

Implementing Parallel LU Factorization with Pipelining on a MultiCore Using OpenMP

*Panagiotis D. Michailidis and Konstantinos G. Margaritis*

A Locality-Aware Publish/Subscribe Scheme for High Level Architecture on Structured Peer-to-Peer Networks

*Wei-Chao Chang, Shih-Hsiang Lo, Kuan-Chou Lai, Kuan-Ching Li, and Yeh-Ching Chung*

LogGPH: A Parallel Computational Model with Hierarchical Communication Awareness

*Liang Yuan, Yunquan Zhang, Yuxin Tang, Li Rao, and Xiangzheng Sun*

DCMTs: Supporting Dynamically Created Migratory Threads

*Yueting Zhu, Wu Zhang, Hai Jiang, Yu Lei, and Junjie Peng*

#### Session A15: CSE Applications II (Chair: Xingang Liu)

Minimizing Thermal Disparities during Placement in 3D ICs

*Prasun Ghosal, Hafizur Rahaman, and Parthasarathi Dasgupta*

GPU-RMAP: Accelerating Short-Read Mapping on Graphics Processors

*Ashwin M. Aji, Liqing Zhang, and Wu-chun Feng*

Medical Image Retrieval with Query-Dependent Feature Fusion Based on One-Class SVM

*Yonggang Huang, Jun Zhang, Yongwang Zhao, and Dianfu Ma*

Intelligent Mode Decision Procedure for MVC Inter-view Frame

*Xingang Liu, Kwanghoon Sohn, Laurence T. Yang, and Wei Zhu*

#### Session A16: Database and Data Mining (Chair: Jinjun Chen)

Time-Series Classification Based on Individualised Error Prediction

*Krisztian Buza, Alexandros Nanopoulos, and Lars Schmidt-Thieme*

Research on Stage Classification of Flight Parameter Based on PTSVM

*Hui Lu and Keifei Mao*

CORER: A New Rule Generator Classifier

**Session A17: Mobile Computing and Wireless Communications II (Chair: Stan Kurkovsky)**

AIM: An Auction Incentive Mechanism in Wireless Networks with Opportunistic Routing

*Kun Zhang, Rui Wang, and Depei Qian*

Service Price Discrimination in Wireless Network

*Zhide Chen and Li Xu*

A Novel Martingale Approach to QoS-Aware Wireless Sensor Networks

*Deborah Duran-Herrmann, Shichuan Ma, Yaoqing (Lamar) Yang, and Yi Qian*

**Session A18: Embedded and Ubiquitous Computing (Chair: Akinori Kanasugi)**

An Approximate Timing Analysis Framework for Complex Real-Time Embedded Systems

*Yue Lu, Thomas Nolte, and Johan Kraft*

Fast Fuzzy C-Means Clustering Based on Low-Cost High-Performance VLSI Architecture in Reconfigurable Hardware

*Yao-Jung Yeh, Hui-Ya Li, Cheng-Yen Yang, and Wen-Jyi Hwang*

Partitioning Granularity, Communication Overhead, and Adaptation in OS Services for Distributed Reconfigurable Systems on Chip

*Sufyan Samara*

Design of Dynamically Reconfigurable Processor for the H.264/AVC Image Prediction and De-blocking Filter

*Y. Hayakawa and A. Kanasugi*

**Session A19: Advanced Networking and its Security, Privacy and Trust (Chair: Laurence T. Yang)**

Fractional Exponent Coupling of RIO

*Wen-Ping Lai and Zhen-Hua Liu*

An Effective Method to Improve the Resistance to Frangibility in Scale-Free Networks

*Kaihua Xu, Yongwei Meng, Yuhua Liu, Naixue Xiong, Laurence T. Yang, and Meirong Zheng*

Vulnerability Analysis and Protection Schemes of Universal Plug and Play Protocol

*Abdullah Al Hasib and M. A. Mottalib*

**Session A20: Intelligent and Bio-inspired Computing (Chair: Hai Jiang)**

Parametric Control in a Region-Based Coupled MRF Model with Phase Dynamics for Coarse Image Region Segmentation

*Haichao Liang, Kazuki Nakada, Kenji Matsuzaka, Takashi Morie, and Masato Okada*

Discrete Particle Swarm Optimization for Materials Budget Allocation in Academic Libraries

*Tsu-Feng Ho, Shyong Jian Shyu, Yi-Ling Wu, and Bertrand M. T. Lin*

Uncalibrated Camera Vision Pointing Recognition for HCI

*Ye-Peng Guan*

**Session A21: Distributed and Parallel Computing I (Chair: Laurence T. Yang)**

Availability-Aware Cache Management with Improved RAID Reconstruction Performance

*Suzhen Wu, Bo Mao, Dan Feng, and Jianxi Chen*

Input-Driven Reconfiguration for Area and Performance Adaption of Reconfigurable Accelerators

*Like Yan, Yuan Wen, and Tianzhou Chen*

A Novel Generalized-Comparison-Based Self-Diagnosis Algorithm for Multiprocessor and Multicomputer Systems Using a Multilayered Neural Network

*Mourad Elhadef and Amiya Nayak*

## B. SESSIONS AND PAPERS IN EUC-10

### The 8th IEEE/IFIP International Conference on Embedded and Ubiquitous Computing (EUC-10)

#### Keynote: Context Sensing for Ubiquitous Computing (Chair: TBA)

Prof. Hans Gellersen, *Lancaster University, UK*

#### Keynote: Multi-touch HCI: A hardware and software co-evolution (Chair: TBA)

Prof. Chia Shen, *Harvard University, USA*

#### Session B11: Embedded Systems Software and Optimization (Chair: TBA)

User-Level Network Protocol Stacks for Automotive Infotainment Systems

*Mu-Youl Lee, Hyun-Wook Jin*

Replay Debugging for Multi-threaded Embedded Software

*Yann-Hang Lee, Young Wn Song, Rohit Girme, Sagar Zaveri, Yan Chen*

Real-time Enhancement for Xen Hypervisor

*Peijie Yu, Mingyuan Xia, Qian Lin, Min Zhu, Shang Gao, Zhengwei Qi, Kai Chen, Haibing Guan*

Schedule Swapping: A Technique for Temperature Management of Distributed Embedded Systems

*Farzad Samie Ghahfarokhi, Alireza Ejlali*

#### Session B12: Embedded Systems and Hardware/Software Co-Design I (Chair: TBA)

Optimized Schedule Synthesis under Real-Time Constraints for the Dynamic Segment of FlexRay

*Reinhard Schneider, Unmesh Bordoloi, Dip Goswami, Samarjit Chakraborty*

Optimizing Runtime Reconfiguration Decisions

*Thilo Pionteck, Steffen Sammann, Carsten Albrecht*

Architectural Support for Reducing Parallel Processing Overhead in an Embedded Multiprocessor

*Jian Wang, Joar Sohl, Dake Liu*

Trading Conditional Execution for More Registers on ARM Processors

*Huang-Jia Cheng, Yuan-Shin Hwang, Rong-Guey Chang, Cheng-Wei Chen*

#### Session B13: Embedded Systems and Hardware/Software Co-Design II (Chair: TBA)

An Environment for Design Software and Hardware Aspects of Clock Synchronization and Communication in DRTEs

*Brahim Hamid, Adel Ziani*

Implementation of a Floating Point Adder and Subtractor in NoGAP, a Comparative Case Study

*Per Karlström, Wenbia Zhou, Dake Liu*

Co-Simulation of Self-Adaptive Automotive Embedded Systems

*Marc Zeller, Gereon Weiss, Dirk Eilers, Rudi Knorr*

#### Session B14: Mobile and Context-aware Computing (Chair: TBA)

GEDS: GPU Execution of Continuous Queries on Spatio-Temporal Data Streams

*Jonathan Cazalas, Ratan Guha*

Rule-based Approach for Context Inconsistency Management in Ubiquitous Computing

*Yong-jae Lee, Jaehyoung Lim, Soon J. Hyun, Dongman Lee*

Transferring Ontologies between Mobile Devices and Knowledge-based Systems

*Xiang Su, Jukka Riekk*

Middleware Support for Context-awareness in Asynchronous Pervasive Computing Environments

*Jianping Yu, Yu Huang, Jiannong Cao, Xianping Tao*

#### Session B15: Middleware for Ubiquitous and Autonomous Computing (Chair: TBA)

Empirical Evaluation of Content-based Pub/Sub Systems over Cloud Infrastructure

*Biao Zhang, Beihong Jin, Haibiao Chen, Ziyuan Qin*

A Reflective Service Gateway for Integrating Evolvable Sensor-Actuator Networks with Pervasive Infrastructure

*Seong Hoon Kim, Daeyoung Kim, Jeong Seok Kang, Hong Seong Park*

Handling Mobility on a QoS-Aware Service-based Framework for Mobile Systems

*Joel Gonçalves, Luis Lino Ferreira, Luis Miguel Pinho, Guilherme Silva*

Trust Measurement Methods in Organic Computing Systems by Direct Observation

*Rolf Kieffhaber, Benjamin Satzger, Julia Schmitt, Michael Roth, Theo Ungerer*

#### Session B16: Cyber-Physical Systems and the Internet of Things (Chair: TBA)

An Application Framework for Loosely Coupled Networked Cyber-Physical Systems

*Minyoung Kim, Mark-Oliver Stehr, Jinwoo Kim, Soonhoi Ha*

LocaToR: Locating Passive RFID Tags with the Relative Neighborhood Graph  
*Yiyang Zhao, S. C. Cheung, Lionel M. Ni*  
An OSGi Based RFID Complex Event Processing System  
*Hou Weifeng, Hou Di, Chen Juan*

### **Session B17: Power-Aware Computing (Chair: TBA)**

Real-Time Constrained Task Scheduling in 3D Chip Multiprocessor to Reduce Peak Temperature  
*Jiayin Li, Meikang Qiu, Jianwei Niu, Tianzhou Chen, Yongxin Zhu*  
Improving the Accuracy of Object Tracking in Three Dimensional WSNs using Bayesian Estimation Methods  
*Junzhao Du, Lei Mao, Hui Liu, Bo Wu, Deke Guo*  
Power Management in Real Time Embedded Systems through Online and Adaptive Interplay of DPM and DVFS Policies  
*Muhammad Khurram Bhatti, Cécile Belleudy, Michel Auguin*  
A Connection-assured Many-to-one Communication of Wireless Sensors with Two Transmission Ranges  
*Wan Yeon Lee, Hyung Goo Paek, Jeong-Mo Yeo, Kyong Hoon Kim*

### **Session B 18: Multimedia and Data Management (Chair: TBA)**

Multi-resolution Next Location Prediction for Distributed Virtual Environments  
*Jaroslav Pribyl, Pavel Zemcik*  
Trick play function for VOD with SVC source  
*Peng Zhu, Hideya Yoshiuchi, Satoshi Yoshizawa*  
OCO: a Multi-channel MAC Protocol with Opportunistic Cooperation for Wireless Sensor Networks  
*Jinbao Li, Desheng Zhang, Longjiang Guo*  
Video Streaming over Wireless Mesh Networks with Multi-Gateway Support  
*Huali Cui, Depei Qian, Xingjun Zhang, Yi Liu*

### **Session B19: Sensor Networks I (Chair: TBA)**

Partitioning Detection and Connectivity Restoration Algorithm for Wireless Sensor Actor Networks  
*Muhammad Imran, Mohamed Younis, Abas Md Said, Halabi Hasbullah*  
Towards Precise Synchronisation in Wireless Sensor Networks  
*Lawrence Cheng, Stephen Hailes, Alan Wilson*  
On efficient clock drift prediction means and their applicability to IEEE 802.15.4  
*Marcin Brzozowski, Hendrik Salomon, Peter Langendoerfer*

### **Session B 20: Sensor Networks II (Chair: TBA)**

RISN: An Efficient, Dynamically Tasked and Interoperable Sensor Network Overlay  
*Evans Jean, Robert Collins, Ali Hurson, Sahra Sedigh, Yu Jiao*  
Efficient Data Delivery in Wireless Sensor Networks with Ubiquitous Mobile Data Collectors  
*Weiwei Jiao, Long Cheng, Min Chen, Canfeng Chen, Jian Ma*  
Virtual Brokers for Large-Scale Publish/Subscribe in Wireless Sensor Networks  
*Yang Liu, Boon-Chong Seet, Adnan Al-Anbuky*

### **Session B 21: Real-Time Systems and Wireless Mesh Networks (Chair: TBA)**

Hierarchical Real-Time Scheduling Framework for Imprecise Computations  
*Guy Martin Tchamgoue, Kyong Hoon Kim, Yong-Kee Jun, Wan Yeon Lee*  
Preemption Control Using Frequency Scaling in Fixed Priority Scheduling  
*Abhilash Thekkilakattil, Anju Pillai, Radu Dobrin, Sasikumar Punnekkat*  
Hierarchical Cooperative Data Caching for Wireless Mesh Networks  
*Weigang Wu, Yifei Huang*

## C. SESSIONS AND PAPERS IN TRUSTCOM-10

### The 2010 International Symposium on Trusted Computing and Communications (TrustCom-10)

#### Keynote: Finding the Real Source of Internet Crimes

Prof. Wanlei Zhou, *Deakin University, Australia*

#### Session C11: Trust Management and Evaluation

M-Trust: A Trust Management Scheme for Mobile P2P Networks

*Basit Qureshi, Geyong Min, Demetres Kouvatsos*

A Dynamic Trust Establishment and Management Framework for Wireless Sensor Networks

*Junqi Zhang, Rajan Shankaran, Mehmet A. Orgun, Vijay Varadharajan, Abdul Sattar*

Trusted Risk Evaluation and Attribute Analysis in Ad-Hoc Networks Security

Mechanism Based on Projection Pursuit Principal Component Analysis

*Jihang Ye, Mengyao Liu, Cai Fu*

Trust Management in Wireless Mobile Networks with Cooperative Communications

*Reyhaneh Changiz, Hassan Halabian, F. Richard Yu, Ioannis Lambadaris, Helen Tang*

CredibilityRank: A Framework for Design and Evaluation of Rank-based Credibility Models for Web Applications

*Sara Guimarães, Arlei Silva, Wagner Meira Jr, Adriano Pereira.*

Node Trust Assessment in Mobile Ad Hoc Networks Based on Multi-dimensional Fuzzy Decision Making

*Zhang Feng, Jia Zhiping, Li Xin, Xia Hui*

The Deficit and Dynamics of Trust

*Abhaya Nayak*

#### Session C12: Attack Detection

On the Security of Non-Linear HB (NLHB) Protocol against Passive Attack

*Mohammad Reza Sohizadeh Abyaneh*

Detecting Security Attacks in Trusted Virtual Domains

*Udaya Kiran Tupakula, Vijay Varadharajan*

PDVDS: A Pattern-Driven Software Vulnerability Detection System

*Shaoyin Cheng, Jinding Wang, Jiajie Wang, Jun Yang, Fan Jiang*

Detection and Prevention of Routing Intrusions on Mobile Ad Hoc Networks

*Pradeep Moradiya, Srinivas Sampalli*

Monitoring Library Function-based Intrusion Prevention System with Continuing Execution Mechanism

*Yudai Kato, Yuji Makimoto, Hironori Shirai, Hiromi Shimizu, Yusuke Furuya, Shoichi Saito, Hiroshi Matsuo*

On the Sender Cover Traffic Countermeasure against an Improved Statistical Disclosure Attack

*Rajiv Bagai, Huabo Lu, Bin Tang*

Passive Worm and Malware Detection in Peer-to-Peer Networks

*Sahar Fahimian, Amirvala Movahed, Mehdi Kharrazi*

#### Session C13: Authentication and Digital Signature

Combined Authentication and Quality of Service in Cooperative Communication Networks

*Ramya Ramamoorthy, F. Richard Yu, Helen Tang, Peter Mason*

Hierarchical Certificateless Signatures

*Lei Zhang, Qianhong Wu, Josep Domingo-Ferrer, Bo Qin*

A Novel Secure Bilinear Pairing Based Remote User Authentication Scheme with Smart Card

*Majid Bayat, Mohammad Sabzinejad, Amirvala Movahed*

Efficient RFID Authentication Scheme for Supply Chain Applications

*Fei Bi, Yi Mu*

Trust Based Authentication for Secure Communication in Cognitive Radio Networks

*Sazia Parvin, Song Han, Biming Tian, Farookh Kadeer Hussain*

#### Session C14: Cryptography and Security Protocols

A Scalable Encryption Scheme for Multi-Privileged Group Communications

*Qiushuang Du, Guojun Wang, Qin Liu*

Side-Channel Resistance Evaluation of a Neural Network Based Lightweight Cryptography Scheme

*Marc Stoettinger, Sorin A. Huss, Sascha Muehlbach, Andreas Koch*

Security of the TCG Privacy-CA Solution

*Liqun Chen, Bogdan Warinschi*

A Key Management Protocol for Multiphase Hierarchical Wireless Sensor Networks  
*Biming Tian, Song Han, Sazia Parvin, Tharam S. Dillon*

Designing Security Protocols Adapted to the Constraints of Mobile Environments  
*M. Kamel, K. Boudaoud, S. Lequeux, M. Riveill*

Extending a Key-Chain Based Certified Email Protocol with Transparent TTP  
*Zhiyuan Liu, Jun Pang, Chenyi Zhang*

Modelling Smart Card Security Protocols in SystemC TLM  
*Aisha Bushager, Mark Zwolinski*

### **Session C15: Trusted Services and Applications**

Secret Key Generation Rate vs. Reconciliation Cost using Wireless Channel Characteristics in Body Area Networks  
*Syed Taha Ali, Vijay Sivaraman, Diethelm Ostry*

A Secure Self-Destructing Scheme for Electronic Data  
*Fengshun Yue, Guojun Wang, Qin Liu*

Modeling and Robust Control for Trusted Web Server  
*Bing Du, Chun Ruan*

Trusted Routing for Resource-Constrained Wireless Sensor Networks  
*Khaled Daabaj, Mike Dixon, Terry Koziniec, Kevin Lee*

Secure Mobile Business Information Processing  
*Nicolai Kuntze, Roland Rieke, Günther Diederich, Richard Sethmann, Karsten Sohr, Tanveer Mustafa, Kai-Oliver Detken*

Simulator Problem in User Centric Smart Card Ownership Model  
*Raja Naeem Akram, Konstantinos Markantonakis, Keith Mayes*

Phase Characterization and Classification for Micro-architecture Soft Error  
*Yu Cheng, Anguo Ma, Yuxing Tang, Minxuan Zhang*

### **Session C16: Trusted Network Computing**

An Access Control Architecture for Distributing Trust in Pervasive Computing Environments  
*Raquel Hill, Jalal Al-Muhtadi, William E. Byrd*

Formal Trust Specification in Service Workflows  
*Wattana Viriyasitavat, Andrew Martin*

Capability-Role-Based Delegation in Workflow Systems  
*Koji Hasebe, Mitsuhiro Mabuchi*

SimTrust: A New Method of Trust Network Generation  
*Touhid Bhuiyan, Yue Xu, Audun Josang*

Above the Trust and Security in Cloud Computing: A Notion towards Innovation  
*Mahbub Ahmed, Yang Xiang, Shawkat Ali*

Probabilistic Analysis on Mesh Network Fault Tolerance: Deterministic vs. Stochastic  
*Gaocai Wang, Taoshen Li, Jianer Chen*

### **Session C17: Trust in Mobile and Wireless Networks**

S-Kcore: A Social-aware Kcore Decomposition Algorithm in Pocket Switched Networks  
*Ming Li, Longxiang Gao, Wanlei Zhou*

Key Sharing in Hierarchical Wireless Sensor Networks  
*Ya-Nan Liu, Jian Wang, He Du, Liang Zhang*

The Cost of Altruistic Punishment in Indirect Reciprocity-based Cooperation in Mobile Ad Hoc Networks  
*Marcin Sredynski, Pascal Bouvry*

TARo: Trusted Anonymous Routing for MANETs  
*Jiefeng (Terence) Chen, Roksana Boreli, Vijay Sivaraman*

A Routing Algorithm Based on Trustworthy Core Tree for WSN  
*Jiang-tao Wang, Li-miao Li, Zhi-gang Chen*

### **Session C18: Security Protection and Reliability**

Defending Malicious Collision Attacks in Wireless Sensor Networks  
*Phillip Reindl, Kendall Nygard, Xiaojiang Du*

Automated Software Protection through Program Externalization on Memory-Limited Secure Devices  
*Serge Chaumette, Olivier Ly, Renaud Tabary*

Guess and Determine Attack on Trivium Family  
*Neda Rohani, Zainab Nofaresti, Javad Mohajeri, Mohammad Reza Aref*

Isolating System Faults on Vehicular Network Gateways Using Virtualization  
*Sung-Moon Chung, Hyun-Wook Jin*

A Fault-Tolerant Architecture with Error Correcting Code for the Instruction-Level Temporal Redundancy  
*Chao Yan, Hongjun Dai, Tianzhou Chen, Meikang Qiu*

### **Session C19: Trust Model, Platform and Framework**

A Cloud Architecture of Virtual Trusted Platform Modules

*Dongxi Liu, Jack Lee, Julian Jang, Surya Nepal, John Zic*

Trusted Computing Platform in Your Pocket

*Surya Nepal, John Zic, Dongxi Liu, Julian Jang*

A Distributed Trust Model for Securing Mobile Ad Hoc Networks

*Pushpita Chatterjee, I. Sengupta, S. K. Ghosh*

OST: A Transaction Based Online Social Trust Model for Social Network and File Sharing Security

*Ming Li, Bonti Alessio, Wanlei Zhou*

Analysis of Property Based Attestation in Trusted platforms

*Aarthi Nagarajan, Vijay Varadharajan, Michael Hitchens*

PBTrust: A Priority-Based Trust Model for Service Selection in General Service-Oriented Environments

*Xing Su, Minjie Zhang, Yi Mu, Kwang Mong Sim*

## D. SESSIONS AND PAPERS IN EUC-10 WORKSHOPS

### UnderWater Acoustic Sensor Network '2010 (UUWSN 2010)

#### Session D11: UUWSN – 1 Architecture Design (Chair: TBA)

Adaptive GTS Allocation Scheme based on IEEE 802.15.4 for Underwater Acoustic Sensor Networks

*Jung-Il Namgung, Soo-Young Shin, Nam-Yeol Yun, and Soo-Hyun Park*

Design and Implementation of the Test-bed for Underwater Acoustic Sensor Network based on ARM9 Processor

*Yeong-Pyo Kim, Jung-Il Namgung, Nam-Yeol Yun, Hui-Jin Cho, Imtiaz Ahmed Khan, and Soo-Hyun Park*

The architecture of Surface Gateway for Underwater Acoustic Sensor Networks (UASNs)

*Youngjun Jo, Jungyoung Bae, Hyunjae Shin, Heungwoo Nam, Saeyoung Ahn, and Sunshin An*

#### Session D12: UUWSN – 2 Tracking and Localization (Chair:TBA)

Bearings-only Tracking Systems with Distributed Floating Beacons in Underwater Sensor Networks

*Eunchan Kim, Sangho Lee, Chungsan Kim, and Kiseon Kim*

Localization with a Mobile Beacon in Underwater Sensor Networks

*Sangho Lee and Kiseon Kim*

Communication in a behavior-based approach to target detection and tracking with Autonomous Underwater Vehicles

*Laura Sorbi, Laura Toni, Graziano Pio De Capua, and Lorenzo Rossi*

#### Session D13: UUWSN – 3 Communication and Implementation (Chair:TBA)

Experimental Results of Single Carrier Digital Modulation for Underwater Sensor Networks

*Se-young Kim, Jeong-woo Han, Ki-man Kim, Sang-hoon Baek, Hyung-chul Kim, and Chang-hwa Kim*

Robot control Using an Underwater Acoustic Modem

*Jun-Ho Jeon, Chang-Gi Hong, Sung-Joon Park, Changhwa Kim, and Sangkyung Kim*

A Study on the Underwater Acoustic Communication with Direct Sequence Spread Spectrum

*Se-young Kim, Ki-man Kim, Won-seok Choi, Min-jae Kim, Seung-yong Chun, and Kwon Son*

### The International Workshop on Constructing Software for Internet of Things (CSIOT–2010)

#### Session D14: CSIOT – 1 Software Design for Internet of Things (Chair: TBA)

Semantic Device Bus for Internet of Things

*Kun Yang, Li Zhang, Shijian Li, and Gang Pan*

IOT Gateway: Bridging Wireless Sensor Networks into the Internet of Things

*Qian Zhu, Ruicong Wang, Qi Chen, Yan Liu, and Weijun Qin*

Spatio-Temporal Events in the Internet of Things

*Beihong Jin, Haibiao Chen*

Implementation of Cloud Computing Environment for Discrete Event System

Simulation using Service Oriented Architecture

*Chungman Seo, Youngshin Han, Haeyoung Lee, Jason J. Jung, and Chilgee Lee*

UbiCloud: A Cloud Computing System for Ubiquitous Terminals Based

on End User Virtualization

*Yuanfei Chen, Zhenmin Zhu, Yi Zeng, and Zhe He*

### The 3rd International Workshop on Sensor Networks and Ambient Intelligence (SeNAml 2010)

#### Session D15: SeNAml – 1 Communication and Energy Consumption (Chair: TBA)

A Method for Dimensioning Micro-Scale Solar Energy Harvesting Systems Based on Energy Level Simulations

*Sebastian Bader, Torsten Schölzel, and Bengt Oelmann*

Online Personal Connection Presentation System for Communication Assistance

*Ryota Ayaki, Hideki Shimada, and Kenya Sato*

Ambient Intelligence, Smart Objects and Sensor Networks: Practical Experiences

*Elisabetta Farella*

#### Session D16: SeNAml – 2 Context-aware Design (Chair: TBA)

A Light Reasoning Infrastructure to Enable Context-aware Mobile Applications

*Josué Iglesias, Ana M. Bernardos, Alejandro Álvarez, and Marcos Sacristán*

Context Awareness Aims at Novel Fruition Models

*Claudio Venezia and Marco Marengo*  
When Ambient Intelligence Meets TCP/IP Protocol Stack: User Layer Design  
*Yu Lu, Mehul Motani, and Wong Wai-Choong*

**Session D17: SeNAmI – 3 Cluster and Ambient Intelligence (Chair: TBA)**

Repair Policies of Coverage Holes Based Dynamic Node Activation in Wireless Sensor Networks  
*Xiao-heng Deng, Chu-gui Xu, Fu-yao Zhao, and Yi Liu*  
An Efficient Clustering Algorithm using Evolutionary HMM in Wireless Sensor Networks  
*Rouhollah Goudarzi, Behrouz Jedari, and Masud Sabaei*  
Two-Tier Cluster Based Routing Protocol for Wireless Sensor Networks  
*Asif U. Khattak, Ghalib A. Shah, and M. Ahsan*

**Third International Workshop on Wireless Network Algorithm and Theory (WiNA 2010)**

**Session D18: WiNA – 1 Secured and Efficient Sensor Networks (Chair: TBA)**

A Deterministic Key Management Scheme for Securing Cluster-Based Sensors Networks  
*Mandicou BA, Ibrahima Niang, Bamba Gueye, and Thomas Noel*  
A fast heuristic for solving the D1EC coloring problem  
*Fabio Campoccia and Vincenzo Mancuso*  
Energy Balanced Routing Strategy in Wireless Sensor Networks  
*Xiaoguang Zhang and Zhang Da Wu*

**Session D19: WiNA – 2 Interference, Coverage and Power Control (Chair: TBA)**

Interference Minimization in Wireless Networks  
*Hakob Aslanyan and Jose Rolim*  
Avoidance of Blind Period for Node Coverage Grouping on Wireless Sensor Networks  
*Chow-Sing Lin and Chih-Chung Chen*  
Predictive Power Control for Mobile Wireless Networks with Time-Varying Delay  
*Cunwu Han, Dehui Sun, Zhijun Li, and Mingyue Zhao*

**2010 International workshop on Challenged Network Architecture (ICNA-10)**

**Session D20: ICNA10-1 Mobility and Routing (Chair: TBA)**

RWPAD: A Mobility Model for DTN Routing Performance Evaluation  
*Yong Wang, Wei Peng, Xilong Mao, and Zhenghu Gong*  
Uncertainty Reasoning on Fuzziness and Randomness in Challenged Networks  
*Yang Li, Jing Wang, Yaowen Yuan, Xiumei Fan, and Qian He*  
Spray and Routing for Message Delivery in Challenged Networks  
*Wanrong Yu, Chunqing Wu, and Xiaofeng Hu*

## E. SESSIONS AND PAPERS IN SEC-10, WMSC-10

### The 2010 International Symposium on Scientific and Engineering Computing (SEC-10)

#### Session E12: SEC – 1 Mobile Computing and Wireless Communications (Chair: Hakki C. Cankaya)

Antenna Selection Scheme for Application in MIMO Systems with Non-constant Envelope Mapping

*Shu-yun Jia, Jian Wang, Jin-tao Wang, and Bo Ai*

Approaches and Issues in Location-Aware Continuous Authentication

*Stan Kurkovsky and Ewa Syta*

Enhancing LOCATION Information Using Semantic Composition

*Hakki C. Cankaya, Eduardo Blanco, and Dan Moldovan*

#### Session E13: SEC – 2 Data Management with Applications (Chair: Cheng-Yu Lu)

Optimizing Academic Conference Classification Using Social Tags

*Jing Xia, Kunmei Wen, Ruixuan Li, and Xiwu Gu*

Emotion Sensing for Internet Chatting: A Web Mining Approach for Affective Categorization of Events

*Cheng-Yu Lu, William W. Y. Hsu, Hsing-Tsung Peng, Jen-Ming Chung, and Jan-Ming Ho*

Research on Mining Rules from Multi-criterion Group Decision Making Based on Genetic Algorithms

*Xinqiao Yu, Naixue Xiong, and Wei Zhang*

#### Session E14: SEC – 3 Cluster, Grid and Cloud Computing (Chair: Tyng-Yeu Liang)

An Adaptively Hierarchical Framework for Remote Paging on Grids

*Tyng-Yeu Liang and Hung-Fu Li*

Characterization of Scientific and Transactional Applications under Multi-core Architectures on Cloud Computing Environment

*Denis R. Ogura and Edson T. Midorikawa*

Implementation of a Medical Image File Accessing System on Cloud Computing

*Chao-Tung Yang, Lung-Teng Chen, Wei-Li Chou, and Kuan-Chieh Wang*

#### Session E15: SEC – 4 Intelligent and Bio-inspired Computing (Chair: Hai Jiang)

A Knowledge-Based Artificial Fish-Swarm Algorithm

*X. Z. Gao, Ying Wu, Kai Zenger, and Xianlin Huang*

A Harmony Search-Based Differential Evolution Method

*X. Z. Gao, X. Wang, and S. J. Ovaska*

Hardware Implementation of k-Winner-Take-All Neural Network with On-chip Learning

*Hui-Ya Li, Chien-Min Ou, Yi-Tsan Hung, Wen-Jyi Hwang, and Chia-Lung Hung*

#### Session E16: SEC – 5 Security, Privacy and Trust (Chair: Xingang Liu)

An Image Interpolation Based Reversible Data Hiding Method Using R-Weighted Coding

*Yildiray Yalman, Feyzi Akar, and Ismail Erturk*

A Novel Image Based CAPTCHA Using Jigsaw Puzzle

*Haichang Gao, Dan Yao, Honggang Liu, Xiyang Liu, and Liming Wang*

### The Second International Workshop on Workflow Management in Service and Cloud Computing (WMSC 2010)

#### Session E17: WMSC – 1 Service Delivery and Composition (Chair: Jinjun Chen)

A Comprehensive Evaluation Method for Cross-Organizational Service Selection

*Rutao Yang, Lianyong Qi, Wenmin Lin, Wanchun Dou, and Jinjun Chen*

Runtime Configurable Service Process Model

*Liang Zhou and Jian Cao*

A QoS-Optimal Automatic Service Composition Method Based on Backtracking Theory

*Wenmin Lin, Rutao Yang, Xiaojie Si, Lianyong Qi, and Wanchun Dou*

Process Semantic-Enabled Customisation for Active Service Provisioning

*Bin Wen, Keqing He, Peng Liang, and Lai Xu*

**Session E18: WMSC – 2 Quality of Services for Workflow Execution (Chair: Jianxun Liu)**

A DMC Based Dynamically Self-Configuration Service Process Engine

*Xuezhi Chai and Jian Cao*

Research on the Mechanism of Tourism Information Change Management Based on ECA Rules

*Tao Hu and BaoHong Li*

An Algorithm on the Mining of Batch Processing Process

*Yiping Wen, Jianxun Liu, and Zhigang Chen*

**Session E19: WMSC – 3 Scientific Computing in the Cloud (Chair: Jian Gao)**

A Taxonomy for the Analysis of Scientific Workflow Faults

*Marco Lackovic, Domenico Talia, Rafael Tolosana-Calasanz, José A. Bañares, and Omer F. Rana*

Persistent Locality Management of Scientific Application Workflows

*Lamine Aouad, Tahar Kechadi, and Serge Petiton*

Discovering Batch Processing Area from Workflow Logs

*Yiping Wen, Jianxun Liu, and Zhigang Chen*

A Dynamic Self-Adaptive Trust Model for P2P E-Commerce System

*Jie Wang, Miaomiao Li, Yang Yu, and Zhenguang Huang*

**Session E20: WMSC – 4 Cloud Workflow Applications (Chair: Wanchun Dou)**

A Framework: Workflow-Based Social Network Discovery and Analysis

*Jihye Song, Minjoon Kim, Haksung Kim, and Kwanghoon Kim*

Cost-Aware Virtual USB Drive: Providing Cost-Effective Block I/O Management Commercial Cloud Storage for Mobile Devices

*Young Jin Nam, Young Kyun Park, Jong Tae Lee, and Fredrick Ishengoma*

Bridging to the Cloud: Solution Design Trends Helping "Legacy" Systems Leverage Cloud Computing

*Brian D. Goodman and Ran SH. Zhou*

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Ming-Hsien Lee, Tamkang University, Taiwan  
Xingang Liu, Yonsei University, Korea  
Kengo Nakajima, University of Tokyo, Japan  
Thomas Rauber, University Bayreuth, Germany  
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Chen Yu, Huazhong University of Science and Technology, China

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### Program Chairs

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Jinjun Chen, Swinburne University of Technology, Australia

### Program Committee

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Jiacun Wang, Monmouth University, USA

Jianwu Wang, San Diego Supercomputer Center, USA

Martijn Warnier, Delft University of Technology, Netherlands

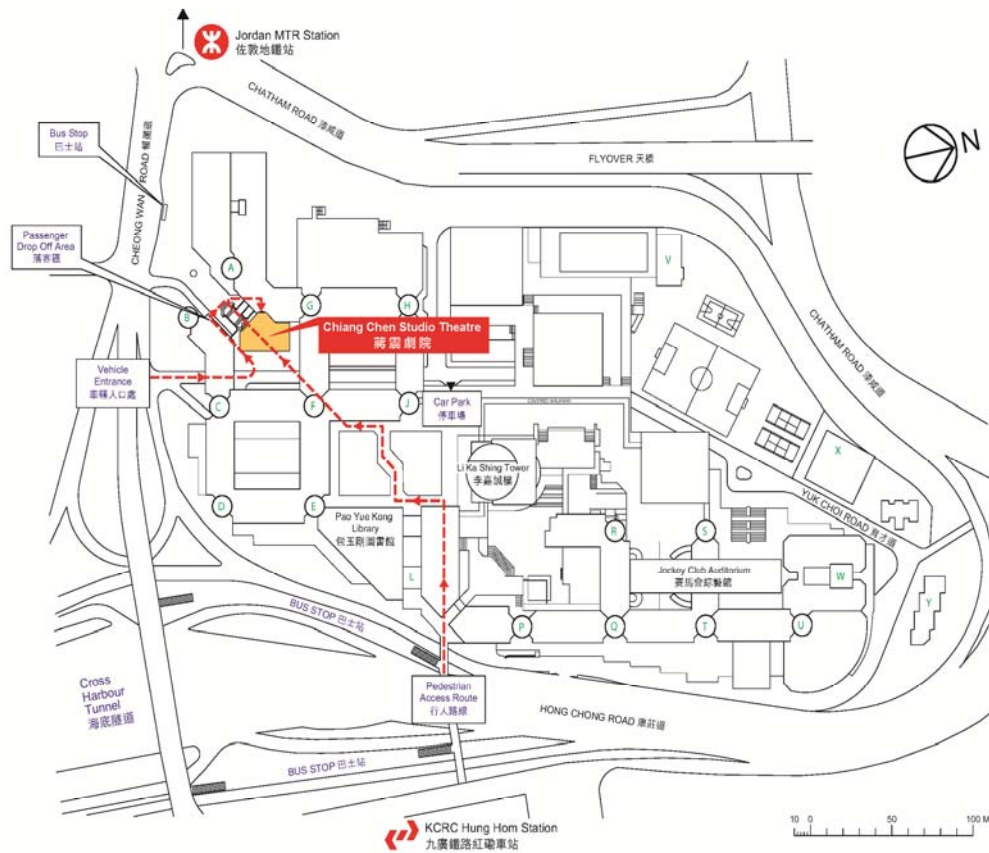
Maggie Minhong Wang, Hong Kong University, China

Lai Xu, Bournemouth University, UK

Yang Yu, Sun Yat-sen University, China



## Location Plan of Chiang Chen Studio Theatre 蔣震劇院位置圖



# How to get to the Conference Venue (The Hong Kong Polytechnic University) ?

By the MTR (Mass Transit Railway 地下鐵路)

The MTR is a commuter railway that runs from Kowloon to the mainland China boundary. Get off at the Hung Hom Station (紅磡站), which is the terminus of the MTR East Rail in the Kowloon side. You may see the university logo on the signs in the station. Follow this symbol and other instructions to get to the bridge connecting between the station and the campus. (The closest exit in the station is Exit A.) When you reach the campus by using the bridge, go straight. Then you can see the lawn as shown in above pictures (set in 1).

The MTR runs along Hong Kong Island's northern coastline and travels beneath the harbor where branches serve Kowloon and Lantau Island (大嶼山). Change at the Kowloon Tong Station (九龍塘站) for the KCR trains to Hung Hom.

By taxi

You can get off at the vehicle entrance near to the Fountain Square (see the pictures in set 2 above), which is in the southern part of the campus (near Cores A, B, and C).

By car

If you drive to the campus and need free parking, contact the registration desk for parking coupons. Overnight parking is not allowed.