The IEEE Fourth International Conference on Networking and Distributed Computing (ICNDC 2013)

Conference Program

Hong Kong , China

December 21-24, 2013

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Welcome from ICNDC 2013 General and Program Co-Chairs

Welcome to Hangzhou and to the IEEE Fourth International Conference on Networking and Distributed Computing (ICNDC2013), held at Hong Kong, China, December 21-24, 2013.

The Networking and Distributed Technologies are the most vital parts of IT technologies in the current days and the future. When the next generation of Internet comes true and mobile systems go to 3G or even 4G in the future, there are trends to transform legacy software into Internet applications. To bring together industrial and academic researchers to discuss hot topics and Trends on Networking and Distributed Computing, with encouraged by successfully organizing the Third International Conference on Networking and Distributed Computing (ICNDC2012) in on October, 21-24, 2012 in Hangzhou, P.R.China, we organize the IEEE Fourth International Conference on Networking and Distributed Computing (ICNDC2013) on December, 21-24, 2013 in Hong Kong, China. ICNDC2013 focuses on (1) distributed computing and distributed systems track including Clusters and Grids, SOA, SAAS,IAAS, Service Composition and Orchestration, Peer-to-Peer Systems, Cloud Computing, etc. (2) Networking track including IP networks, Next generation Internet, wireless network, wireless mesh networks,4G mobile communications and beyond, etc. (3) Distributed Applications track including application systems such as e-business, e-Science as well as application systems in the fields of Management Science and Economics and Education Science, etc.

ICNDC2013 received 120 submissions from over 10 countries and regions. All submitted papers have to go through a rigorous reviewing process. After rejecting parts of papers in the first round quick screen, each of the remainder submissions was reviewed by at least three independent reviewers in a standard peer-review process. After rigorous peer-review, we finally select 37 papers (acceptance rate 30%) for publication.

ICNDC2013 is co-sponsored by City University of Hong Kong，Zhejiang Sci-Tech University, China ; Research Institute of Information Technology, Tsinghua University, China ; Hangzhou Domain Zones Technology Co., Ltd. ICNDC2013 is also technically co-Sponsored by Parallel Computing Centre, Imperial College London, UK; Distributed & Scientific Computing, Cardiff University, UK ; Univ. of Southern California， USA; Purdue University Calumet, USA; IEEE Computer Society; IEEE Computer Society Technical Committee on Scalable Computing (TCSC). Their sponsorships support the success of conference.

ICNDC2013 would not have been successful without the support of many people and organizations. First and foremost, we would like to thank all the authors for submitting their papers to the conference, for their presentations and discussions during the conference. We

would like to express our most sincere gratitude to Program Committee members and our professional reviewers, who carried out the most difficult work by carefully evaluating the submitted papers， especially thanks to Dr. Pavan Balaji (Chair of TCSC) . We would like to give special thanks to the conference sponsors. Last but not least, we would like to thank all conference participants for their contribution and support. We hope that all participants can take this opportunity to share and exchange ideas with one another and enjoy ICNDC2013.

General Co-Chairs of ICNDC2013

Prof. Kin Keung Lai City University of Hong Kong , China
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Prof. Lican Huang Zhejiang Sci-Tech University, China
Prof. Junwei Cao Tsinghua University., China
Prof. Yike Guo Imperial College London, UK
Prof. David W. Walker Cardiff University, UK
Prof. Keyuan Jiang Purdue University Calumet, USA

Program Co-Chairs of ICNDC2013
Prof. Maozhen Li Brunel University, UK

Overview of Schedule and Technical Program

DEC. 21, 2013

8:00-17:30 Registration

8:30-9:00 Opening Session

9:00-9:50 Keynote Speech 1

10:10-11:00 Keynote Speech 2

11:00-11:50 Keynote Speech 3

13:30-18:30 Session talks

Accepted Paper List

Kumiko Kobayashi, I Gusti Bagus Baskara Nugraha and Hiroyoshi Morita. Wall Pass Algorithm in a Geographic Location-Based Distributed Routing System，Kumiko Kobayashi Laboratory， Japan

HaiMing Zhang, JianHui Li, YuanChun Zhou, XueZhi Wang, and BaoPing Yan. Using MODIS Satellite Imagery to Study the Wild Birds' Migration, Chinese Academy of Sciences, China

Qiuluan Li, Guohua Zhan and Zhihua Li. Novel Multi-hop Routing Algorithm Based on Uneven Clustering, Hangzhou Institute of Service Engineering, China

Zhu Yanjun, Wang Binjun and Zhang Wei. SSL VPN System Based on Simulated Virtual NIC, Chinese People's Public Security University, China

Doan B Hoang and Najmeh Kamyabpour. Energy-constrained paths for optimization of energy consumption in Wireless Sensor Networks, University of Technology, Sydney , Australia

Zijing Yang, Junwei Cao, Yanxiang Xu, Huaying Zhang, Peng Yu and Senjing Yao. Data Cleaning for Power Quality Monitoring, Tsinghua University, China

Tian Gao, Junwei Cao, Yanxiang Xu, Huaying Zhang, Peng Yu and Senjing Yao. From Power Quality to Power Experience, Tsinghua University, China

Kai Lei, Qian Yu and Rui Ning. A Device-Similarity-Based Recommendation System in Mobile Terminals, Peking University, China

Xiuqing Lu, Chen Ye, Jian Yu and Yaying Zhang. A Real-Time Distributed Intelligent Traffic Video-surveillance System on Embedded Smart Cameras, Tongji University, China

Willyan Daniel Abilhoa and Leandro Nunes de Castro. Keyword Extraction from Twitter Messages based on Graphs for Text Representation , Mackenzie Presbyterian University, Brazil

Bin Cao, Zhen Chen, Hongjian Liu, Ge Ma, Peng Zhang and Guodong Peng. Black Box Testing for Cloud-based Client Security Software in Network Behaviors, Tsinghua University, China

Yuanjun Yao, Hao Yuan, Feng Xie and Zhen Chen. SOFA: Statistic based Collaborative Filtering Algorithm, Tsinghua University, China

Ge Ma, Zhen Chen, Hongjian Liu and Bin Cao. Large-scale emulation for Content Centric Network, Tsinghua University, China

Ge Ma, Zhen Chen and Kaichen Zhao. A Cache Management Strategy for Content Store in Content Centric Network, Tsinghua University, China

Junwei Cao and Mingbo Yang. Energy Internet - Towards Smart Grid 2.0 , Tsinghua University, China

Songbin Liu, Xiaomeng Huang, Yufang Ni, Haohuan Fu and Guangwen Yang. A Versatile Compression Method for Floating-point Data Stream , Tsinghua University, China

Yubo Jia, Qian Zhang, Qianqian Ding and Danli Liu. An Improved Decision Strategy of Network Routing Based on Ant Colony Algorithm , Zhejiang Sci-Tech University, China

Wanghui Wang, Siping Hu and Jinshan Dai. Research and Analysis of Internet QoS Performance , Wuhan University of Technology, China

Menglu Xu, Pin Lv and Haibo Wang. Predicate Priority Based Event Matching Algorithm in Publish/Subscribe System, Chinese Academy of Sciences ,China

Minzhe Guo and Prabir Bhattacharya. Controller Placement for Improving Resilience of Software-defined Networks, University of Cincinnati ,USA

Xiuna Zhu. Pragmatic Tabular Specification Framework of Interactive Systems, Technische Universit¨at M¨unchen, Germany

Feng Kang, Yonghua Han and Huaxiong Zhang. Video Stabilization Based on Multi-scale Colored Local Invariants, Zhejiang Sci-Tech University, China

Ume-Hani Syed, Fahad Khurshid and Dr. Arif Iqbal Umar. Avoidance of BlackHole Affected Routes in AODV-Based MANET, Hazara University , Pakistan

Rongxian Chen, Yaying Zhang and Dongdong Zhang. Cloud Task Scheduling Algorithm Based on Users' Satisfaction, Tongji University, China

Prachi Saxena and Sini Shibu. A Novel Approach to Design Time Efficient and Secure encryption Algorithm (T-SEA), Bhopal (M.P.), INDIA

Tian Chen, Xie Lanchi and Wang Xingjun. Conbination of DRM and mobile code: A practice to protect TV contents and applications on Android Smartphone, Tsinghua University, China

Ali Makke, Yves Mahéo and Nicolas Le Sommer. Towards Opportunistic Service Provisioning in Intermittently Connected Hybrid Networks, IRISA, France

Hyungjik Lee, Joonyoung Jung, Dongoh Kang and Changseok Bae. Policy-based Dynamic Power Management Architecture for Cluster System, Electronics and Telecommunications Research Institute Daejeon, Korea

Ronghua Liu, Jiahua Wei and Dejun Zhu. A Parallel JPWSPC Algorithm for Hydrodynamic Simulation of River Network, Tsinghua University, China

Yen-Yin Chu, I-Hsuan Peng, Chih-Wei Lai and Addison Y.S. Su. State Dependent Radio Resource Scheduling for Energy Saving in LTE Downlink, Taiwan National Central University

Jin Ho Ahn. Real-time Constrained Causal Order Delivery Ensuring Broadcast Algorithm Providing High Responsiveness, Kyonggi University, Republic of Korea

Kuo-Hsuan Huang, En-Chi Chang and Chen-Lin Chang. Secure File Sharing Scheme for Mobile Devices, Tatung University, Taipei

Kuo-Hsuan Huang and En-Chi Chang. A Patient-Centric Access Control Scheme for Personal Health Record in the Cloud, Tatung University, Taipei,

Lican Huang. Instant Messaging based on Semantic P2P System. China

Lican Huang, Chuane Wu, LiYa Chen,Lian Zhu, Comparisons of Encryption Algorithms in Histogram-equalized Image, Zhejiang Sci-Tech University , China

Lican Huang, Zhilong Li. A Novel Method of Parallel GPU Implementation of KNN Used in Text Classification, Zhejiang Sci-Tech University , China

Kelin Deng, Junwei Cao, Peng Guo and Xingtao Xu, Energy Saving Analysis of Harmonic Suppression in a Distribution Network,Tsinghua University, China

Keynote Speakers

Neural Network Based Models for Value-at-Risk Analysis

Kin Keung Lai

Although the original concept is simple and straightforward, the VaR estimation is in fact a very tough statistical proposition and unfortunately none of the traditional methods has achieved convincing results. The main reason behind this inefficiency is the overlooking of the stylised facts of asset return series and subsequent mis-specification of model assumptions. The primary purpose of this talk is the development and presentation of new methods based on neural networks for VaR estimation with application to financial time series in Asia markets.

黎建强教授简历

黎建强教授,美国密歇根州立大学博士，香港城市大學管理科学讲座教授,曾任香港国泰航空公司的高级运筹分析师以及美商联合炭化公司远东区域经理，负责市场信息系统的建立与运作。

黎教授主要的研究领域包括供应链、运作管理和金融风险分析。黎教授为香港和中国的许多公司和机构实施过多项管理咨询项目，包括运营管理和金融工程等。他是香港运筹学会的创建人，并担任秘书长。亚洲风险与危机协会会长。注冊高級企業風險管理師。香港專業及資深行政人員協會會員与香港董事學會資深會員。曾任亚太工业工程与管理学会的主席与中国湖南大學工商管理學院院長。

2009 年黎教授是美国密歇根州立大学年度杰出国际校友奖得奖者,中國教育部聘為長江學者講座教授。

Bio of Professor Lai Kin Keung

Professor Lai received his PhD at Michigan State University, USA. He is currently the Chair Professor of

Management Science at the City University of Hong Kong. Prior to his current post, he was a Senior Operational Research Analyst for Cathay Pacific Airways and an Area Manager on Marketing Information Systems for Union Carbide Eastern.

Professor Lai's main areas of expertise are operations and supply chain management, financial and business risk analysis. Professor Lai has actively engaged in management consultant projects for corporations and organizations in Hong Kong and China, on operations management and financial engineering. He is the Founding Chairman of the Operational Research Society of Hong Kong which was established in 1979. Currently he is the President of the Asia Association on Risk and Crises Management. He is a Certified Senior Enterprise Risk Manager. He is also a member of the Hong Kong Professionals and Senior Executives Association, a Fellow of the Hong Kong Institute of Directors. He was the President of the Asia Pacific Industrial Engineering and Management Society and the Dean of the College of Business Administration, Hunan University, China.

In 2009, Professor Lai is the recipient of the Joon S. Moon Distinguished International Alumni Award of the Michigan State University and also appointed as the Chang Jiang Scholar Chair Professor by the Ministry of Education, China.

Energy Internet

This talk provides an overview introduction to Energy Internet, including its concept, the state of art, architecture and technical challenges.The merging of energy and information infrastructure is especially described.

Junwei Cao received the PhD degree in computer science from University of Warwick, United Kingdom, in 2001. He received the master's and bachelor's degrees from Tsinghua University in 1998 and 1996, respectively. He is currently a Professor and Deputy Director of the Research Institute of Information Technology, Tsinghua University, China. He is also the Director of the Open Platform & Technology Division, Tsinghua National Laboratory for Information Science and Technology, Beijing, China. His research is focused on distributed computing technology and energy/power applications. Before joining Tsinghua in 2006, he was a research scientist at the Massachusetts Institute of Technology. Before that, he worked as a research scientist at NEC Europe Ltd., Germany. He has published more than 150 academic papers and books with 6000+ citations. He is a senior member of the IEEE Computer Society and a member of the ACM and CCF.

IM Based on Semantic P2P Network

This talk provides framework of Instant message based on Semantic P2P networks and β version and development plan of a company.

Prof. Lican Huang

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Bio

Prof. Huang works on challenges about Cloud Computing and P2P computing. He has worked on e-Science and Grid computing since the beginning of 2000's. He was honored in Marquis Who's Who in the World 2006, Marquis Who's Who in the Science and Engineering 2006-2007, and Marquis Who's Who in Asia 2006-2007 due to his achievement of proposing Virtual and Dynamic Hierarchical Architecture for e-Science and Grid and VIRGO protocols. He serves as program committee member of many international conferences. He has contributed over 100 technical papers to various conferences and refereed journals.

Prof. Huang now is a Director of Network & Distributed Computing at Zhejiang Sci-Tech University (ZSTU). Prior to joining ZSTU, Prof. Huang worked as a Senior Research Associate in the School of Computer Science at Cardiff University since 2004. Before working at Cardiff University, he developed many large software systems in several companies, as technical leader or department manager. He obtained his Ph.D. in Computer Science from Zhejiang University in 2003, Bachelor's From Nanchang University in 1982, and Master's from Hangzhou University in 1984.

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Information for Conference Arrangements

Academic-3 Building, Room 5203

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Tat Chee Ave, Kowloon, Hong Kong

(The campus can be assessed by MTR, Train and Taxi).