



2016

International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery

Conference in Chinese: 第八届网络分布式计算与知识发现国际会议

October 13-15, 2016

Ascott Raffles City Chengdu (成都雅诗阁来福士)

No. 3, Section 4, South Renmin Road, Wuhou District, Chengdu 610041, China

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IEEE Big Data Initiative, IEEE SDN Initiative, Tech Mahindra, Huawei, InfoBeyond

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CyberC 2016

IEEE Big Data Analytics Competition

Call for Participation

Data Science is all about the processes and methods to access and analyze data to gain insights for informed decision making. To promote the awareness and analytic technology of Big Data, the **IEEE Big Data Initiative** (BDI) is organizing a Data Analytics Competition. The competition will be held during CyberC 2016, October 13-14, Chengdu, China.

Competition Dataset and Questions

The competition requires participants to analyze and gain insight from the dataset provided. The dataset and questions will be provided on **Monday, September 19, 2016**. Their file locations will be announced on the CyberC 2016 home page <http://www.cyberc.org/>

Participation

Participation is open to conference registered attendees only. You could be either

CyberC 2016: Registration Form: <http://cyberc.org/page.asp?id=173>, or

Big Data Summit 2016: Ticket at <http://www.cyberc.org/bigdata/> for two days (ticket with Oct. 13 & 14).

You may participate individually or as part of a team. To participate, sign up by **Friday, September 30** by sending an email to Yegin Genç (gencyegin@gmail.com) and Chi-Ming Chen (chimingchen_ieee@yahoo.com) with the following information:

- Name or names if a team
- Affiliation (e.g. name of university or company)
- Email address(es)
- Competition category (professional or student)
- Do you have a paper accepted by CyberC 2016?

Evaluation and Awards

You are expected to present your findings to a judging panel of practitioners. Presentations will be evaluated based on the following criteria:

- Clarity and Relevance of Analysis
- Methodology
- Creative use of data
- Significance of findings
- Delivery of findings

Two awards will be given: 1) one winning professional or professional team will be awarded with US\$1,000; 2) one winning student or student team will be awarded with US\$500.

Timeline

Now – Registration for competition starts

Monday, September 19 – Dataset and questions available

Friday, September 30 – Registration for competition closes

Friday, October 14 – Presentations

Friday, October 14 – Awards presented in CyberC 2016 Banquet

CyberC 2016 Program Committee

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Chi-Ming Chen, AT&T Labs, USA

Chung-Min Chen, Iconectiv, USA

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Organizer: Chi-Ming Chen (陳啟明) PhD, AT&T Labs, USA



Chi-Ming Chen joined AT&T in 1995. He is with the AT&T Labs Architecture organization which defines the AT&T SDN/NFV network architecture and management methodologies. Prior to joining AT&T, Chi-Ming was with Bell Communications Research (Bellcore) from 1985 to 1995. His responsibilities included specification of quality and reliability requirements for various networks and network elements, and supplier product testing and analyses. From 1975 to 1979, Chi-Ming was a faculty member at Tsing Hua University, Taiwan.

He received his Ph.D. in Computer and Information Science from the University of Pennsylvania in 1985; M.S. in Computer Science from the Pennsylvania State University in 1981; M.S. and B.S. in Physics from Tsing Hua University, Taiwan, in 1973 and 1971 respectively.

Chi-Ming is a Life Senior Member of IEEE and Senior Member of the Association for Computing Machinery (ACM). He is an Advisory Board Member of IEEE Communications Society (ComSoc) Technical Committee on Communications Quality & Reliability (CQR), a member of the IEEE GLOBECOM & ICC Management & Strategy (GIMS) Standing Committee, and a member of the Industry Content and Exhibits Committee (ICEC). He has chaired several

GLOBECOM and ICC Industry Forums and served as an IF&E (Industry Forum & Exhibits) Advisor for GLOBECOM 2014, ICC 2015, GLOBECOM 2015.

SDN/NFV Summit Moderator: David Lu (陆惠晨), Vice President, Common Platforms & Technology Services, Technology Development, AT&T Services, Inc. USA



David, Vice President – Common Platform & Technology Services, and Business Solution Development, is responsible for integrated and common software platforms, tools, technology components, and services to enable the AT&T network and systems virtualization and software ecosystem transformation including API, common data frameworks, network management, dispatching, and policy control & orchestration platforms. He leads an organization with more than 5,000 people across the globe.

David is a well-respected leader in software architecture and engineering, network performance and traffic management, business solutions, large DB and big data implementation/mining/analytics, software reliability and quality, and network operations process engineering.

Since joining AT&T Bell Labs in 1987, he has served in various leadership positions at AT&T. He holds 36 patents and has frequently appeared as a guest speaker at technical and leadership seminars and conferences throughout the world. He received numerous industry awards including the 2015 Chairman's Award from IEEE Communication Society for Network and Systems Quality and Reliability. He has been very active in community organizations and activities including AT&T APCA, DFW-CIE, and DFW Asian American Chamber of Commerce. He was recognized by AT&T APCA with the 2015 Corporate Leadership Award.

He was admitted to the world renowned Shanghai Conservatory of Music but came to US to complete his college. He has an undergraduate degree in music, majoring in cello performance and graduate degree in Computer Science.

Organizer: Anup Kumar, Professor, University of Louisville, USA



Anup Kumar (ak@louisville.edu) is currently a Professor of CECS Department at the University of Louisville. He is also the Director of Mobile Information Network and Distributed Systems (MINDS) Lab. He has given tutorials in the past at many IEEE International conferences and at SCC-2005/2006. His research interests include web services, wireless networks, distributed system modelling, and simulation. He has co-edited a book titled, "Handbook of Mobile Systems: Applications and Services" published by CRC press in 2012. He is an Associate Editor of Internal Journal of Web Services Research. He was an Associate Editor of IEEE Transactions on Services Computing from 2008-2012. He was Associate Editor of International Society of Computers and Their Application Journal from 2004-2008 and of International Journal of Engineering Design and Automation from 1995-1998. He was a member of IEEE Distinguished Visitor Program (2006-2008). He was the Chair of IEEE Computer Society Technical committee on Simulation (TCSIM) (2004-2007). He has published and presented over 200 papers. He has served on many conference program and organizing committees such as CyberC-2013-2009, IEEE ISCC 2007, IEEE ICSW-2006, IEEE MASS-2005, IEEE SCC-2005, IEEE ICWS-2005, CIT-2005, IEEE MASCOTS, ADCOM 97 and 98. He has also edited special issues in

IEEE Internet Magazine, and International Journal on Computers and Operations Research.

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Big Data Summit Moderator: Chung-Min Chen (陳仲民) Ph.D. , VP of Data Science, iconectiv, USA



Chung-Min currently leads the exploration of data science techniques for telecom applications that aim at improving mobile user experiences and business intelligence. Previously he was Chief Scientist with Applied Communication Sciences working on data analytics and privacy involving large sets of smart grid, financial, and web data. Prior to that, he was Chief Scientist and Director of Telcordia Technologies, during which he led and contributed to projects in OSS, telematics, and M2M. He also headed Telcordia's applied research center in Taiwan, overseeing R&D, consulting, and customer engagement.

His research interest spans across areas in database systems, machine learning, parallel & distributed computing, mobile data, and mobile ad hoc network. He has published over 50 research papers in journals and conferences including The Journal of the ACM, IEEE Trans. on Knowledge and Data Engineering, ACM Transactions on Sensor Networks, IEEE Trans. on Mobile Computing, IEEE/ACM Trans. on Networking, IEEE J. SAC, INFOCOM, ACM SIGMOD, KDD, EDBT, ICDE, and ICDCS. He received the Newcomer Paper Award of ACM PODS 2002.

Chung-Min was an Adjunct Professor at National Taiwan University (2008-2011) and an invited speaker at the 2001 Data Mining Summer School at Rutgers University. He also served as the Chair of US ANSI expert group to Working Group 17 (Mobile Devices for ITS Applications) of ISO TC-204 (Intelligent Transportation System). He received PhD in Computer

Organizer: Bin Xie(谢彬), CEO of InfoBeyond & NXdrive, USA



Dr. Bin Xie received his M.Sc and Ph.D. degrees in Computer Science and Computer Engineering from the University of Louisville, Kentucky, USA, 2003 and 2006 respectively. He is the author of books titled Handbook/Encyclopedia of Ad Hoc and Ubiquitous Computing (World Scientific: ISBN-10: 981283348X, World Scientific Publisher), Handbook of Applications and Services for Mobile Systems (Auerbach Publication, Taylor and Francis Group, ISBN: 9781439801529, 2012) and Heterogeneous Wireless Networks- Networking Protocol to Security, (VDM Publishing House: ISBN: 3836419270, 2007).

Dr. Xie is the founder of the InfoBeyond and proud of the talent team. InfoBeyond offers NXdrive products for holistic data storage protection. It builds an additional layer over encryption to enable the capabilities for safety-critical confidentiality, privacy protection, data anti-destroyed (unauthorized data deletion), data sabotage (unauthorized data modification), and data thieves. Meanwhile, it defends a variety of cyber-attacks. All these features are not well provided in the traditional data storage, e.g., encryptions. Mobile Apps are published at Google Play and iPhone Store. Dr. Xie has published 70+ papers in the IEEE conferences and journals. His R&D interests are focused on cyber security, wireless communication, big data, and user performance. Previously, Dr. Xie is/was a PI of 21 R&D projects that are financially supported by DoD (Air Force, Navy, and Army), DoE (Department of Energy), DoC (Department of Commerce)/NIST (National Institute of Standards and Technology). Access Control Policy Test (ACPT) security tool is testing for civilian commercialization

under the support of NIST.

Dr. Xie served as a reviewing member of NIH (National Institute of Health) Special Emphasis Panel on System Science and Health in the Behavioral and Social Sciences, ZRG1 HDM-Q (50), 2010-present. He is an editor member of the Journal of International Journal of Information Technology, Communications and Convergence (IJITCC). He was the Guest Edit Chair of Elsevier Future Generation Computer Systems (FGCS) in a special issue on Mobile Computing, 2012. He delivered a number of speeches in the Army, Navy, Air Force, academic, and industrial societies. Dr. Xie is an IEEE senior member.

You are welcome to use NXdrive (www.NXdrive.com) Apps for secure data storage and sharing.

Juncen He, 何俊岑, Deputy Director of the Science and Technology, Electronic Information Control Laboratory (EICL)



Juncen He is deputy director of the Science and Technology of Electronic Information Control Laboratory. He is mainly engaged in the region of smart microwave sensor for electromagnetic environment big data collection. His research interests include integrative antenna, smart ultra-wideband microwave receiver, and electromagnetic environment big data analysis. He has got more than 10 patents about microwave antenna and receiver and published several papers in related region. Now he has been directly funded by three programs of the National High Technology Research and Development Program of China.

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Keynote 1: Mahmoud Daneshmand, PhD, Professor, Stevens Institute of Technology, New Jersey, USA



Biography: Dr. Mahmoud Daneshmand is currently Professor of Business Intelligence & Analytics as well as Computer Science Departments at Stevens Institute of Technology. He is Co-Founder of the new Business Intelligence & Analytics Masters Degree program. In this role, he teaches graduate courses, conducts research and advises PhD students in areas of Big Data and in particular Sensors and Streaming Data. He is co-founder and chair of Steering Committee of the new IEEE Journal of Internet of Things (IoT), and Guest Editor of the IEEE Sensors Journal SI. He is an expert in Big Data Analytics, IoT/Sensors & RFID Data Streams, Data Mining Algorithms, Machine Learning, Probability & Stochastic Processes, and Statistics.

Mahmoud has served as Distinguished Member of Technical Staff (DMTS) at Bell Labs as well as AT&T Shannon Labs-Research; Assistant Chief Scientist of the AT&T Labs; and Executive Director of the AT&T Labs university collaborations program. He has more than 35 years of teaching, research & publications, consultation, and management experience in academia & industry including: Bell Laboratories, AT&T Shannon Labs-Research, University of California at Berkeley, University of Texas at Austin, Sharif University of Technology, University of Tehran, New York University, and Stevens Institute of Technology.

He has published more than 91 Journal and conference papers; authored/co-authored three books; Holds two patents (2009 and 2010). He has been Guest Editor of several IEEE journals; keynote speaker of many IEEE conferences; Executive Committee of GLOBECOM as well as ICC; Chair of Steering Committee of IEEE ISCC; and General Chair and Technical Chair of many IEEE conferences.

He has a PhD and MS in Statistics from the University of California, Berkeley, and MS and BS in Mathematics from the University of Tehran.

Representing the IEEE Big Data Initiative

Topic: Big Data, Internet of Things, Cybersecurity, Stream Analytics & Knowledge Discovery

Extended Abstract: Big Data of early 2000s were generated and recorded by Telecommunications industry. These included: Call Detail Records (CDR); IP Traffic; Cellular Traffic; Audio and Video; etc. Scientists and Engineers of Bell Laboratories and AT&T Shannon Labs were among the first to realize the value of Big Data in Intelligent Network Operations, Network Management; Designing the future Networks; Business Applications and Customers Satisfaction; Creation, Delivery and Operations of New Services; and specifically Fraud & Network Intrusion Detection and Security.

The current, as well as Big Data of the future, are being generated by Internet of Things (IoT), Smart Phones and Mobility Devices, Wearables, etc. i.e., billions of “things” connected to the Internet. This had led to even Bigger Data, and more dynamic than traditional “Static Data”. It is “Data in Flight”, “Data in Motion”, also called “Streaming Data”. Data streams arrive continuously and so rapidly that it is not feasible or useful to store it in a conventional database and then analyze it at the time of our choosing, if it is not processed immediately, then its value is lost forever. For example, detecting a cyber-security attack cannot wait for data warehouse style processing. The Nature of Data Analytics has changed.

The Biggest Challenge of the current IoT and Cybersecurity is: Management and Mining of ever-increasing Streams of data. “Analytics Are a Key Part of Value Creation in IoT”, says Pankaj Patel, EVP of Cisco. “The challenge of IoT today is making sense of all the data we’re creating and capturing”, says Ginni Rometty, chairman, president and CEO of IBM. “We have moved from data mining to information mining to knowledge mining and from big data analytics to real-time streaming analytics which most people now called Business Intelligence”, writes Dr. Hossein Eslambolchi, Executive Chairman - CYBEFLOW Analytics on Tech Predictions 2016.

This talk will focus on challenges of the emerging Big Data Streams Analytics & Knowledge Discovery. Emphasize will be on end-to-end Big Data Stream Analytics including: data acquisition, data communications & networking, data quality & reliability, data security, fog/edge and cloud computing, and stream data analytics technologies. Applications to Cybersecurity will be presented. Future academia & industry challenges including research directions and opportunities emerging from disruptive technologies of: IoT, Mobility Devices, Cybersecurity, and near real-time large-scale Big Data Streams Analytics will be covered.

International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery (CyberC 2016)

Keynote 2: Naresh Sadhnani, Head of BI Big Data and Analytics for the South East and North Asia (SENA) Re-



Biography: Naresh Sadhnani is Head of BI Big Data and Analytics for the ASEAN Region at Tech Mahindra. He has a total of 20 years IT industry experience with over 16 years within the APJ region. Over the years Naresh has worked across the Data Warehousing and Big Data technology space developing significant technical & business acumen geared to creating positive change across an enterprise. He has achieved corporate objectives through passion and commitment to integrating Big Data technologies and advanced enterprise analytics. He is also a recognized thought leader within the Big Data community in the region. As a Head for Big Data Strategy and Solutions (ASEAN) at Tech Mahindra, Naresh has successfully contributed in the following areas:

- ◇ Evangelize the benefits of Big Data Services to customers around the region
- ◇ Create thought leadership in Big Data as a trusted adviser to senior IT leaders and the CXO suite
- ◇ Cultivate and take to market unique Big Data solutions
- ◇ Possess broad current industry knowledge of all technologies and trends related to Big Data
- ◇ An agile, enthusiastic professional who takes pride in being on top of the technology leading edge.
- ◇ Strong influencer, capable of connecting customers to the "right solution at the right time" resulting in

excitement and real business ROI

Topic: Data as a Strategic Asset

Abstract:

Big data and analytics have become a prime focus of organizations in this decade. Together both promise to transform the way business is done and delivering high performance gains. In the last decade and 1990s organizations focused on their core processes. But as these organizations mature in their process driven approach they realize an importance for a data-driven strategies to provide them with competitive differentiation.

In this presentation we will provide a view on how executives should focus on targeted efforts to source data, build models, and transform organizational culture.

“The old way of doing data management, where you’re looking at things very tactically, is not going to cut it in the future. Organizations need to evolve from a tactical perspective to a more strategic, holistic approach with their data”

Mark Troester, IT/CIO thought leader

Keynote 3: Xiaolong Xu 徐小龙, PhD, Professor, Nanjing University of Posts & Telecommunications, China



Biography: Dr. Xu is currently a professor in College of Computer, Nanjing University of Posts & Telecommunications. He received his B.S. in computer and its applications, M.S. in computer software and theories and Ph.D. degree in communications and information systems, in 1999, 2002 and 2008, respectively. He is a senior member of China Computer Federation. He teaches graduate courses and conducts research in areas of Cloud Computing, Big Data, Information Security and Novel Network Computing Technologies.

As the leader of project teams, he has successfully completed a number of high-level research projects, including the projects sponsored by the National Science Fund of China and the project sponsored by the Doctoral Fund of Ministry of education of China, etc.

He has published more than 60 Journal and conference papers as the first author and co-authored three books. He is authorized 21 patents by the State Intellectual Property Office of China as the first inventor.

He was rated as excellent young professor of Jiangsu Province in 2014, selected as the high-level creative talents of Jiangsu province in 2015, and won the title of outstanding expert in the area of computer science and technology.

Topic: Green Cloud Computing - Process and Storage Infrastructure for Big Data

Abstract

High-energy consumption in cloud data centres and its effects to the environment raised widespread concerns around the world. The reasons for the high-energy consumption are because of the unorganized distribution of energy, low efficient managements of resources, and less organized tasks executions. Our objectives are to establish an energy-consumption model and a green cloud computing model based on detailed analysis of operations of data centres and energy consumption owing to the operation, develop algorithms to allocate resources, schedule tasks execution, and distribute and aggregate data towards green cloud computing, and thus make the operation of components of cloud system orderly, reduction of energy consumption efficiently and reasonably under the guarantee of system QoS and Service Level Agreement (SLA). The exclusive research efforts in modelling green cloud computing and resource allocation and tasks execution scheduling will play an important role in reducing energy consumption and emission of gases to the globe.

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Keynote 4: Prof. Yegin Genc, Pace University, New York, USA



Biography: Yegin Genc is an Assistant Professor at Seidenberg School of Computer Science and Information Systems at Pace University. He received his Ph.D. in Information Management from Howe Business School at Stevens Institute of Technology in 2014. His research draws from exploratory search, information retrieval, and text analysis with a particular focus on semantic transforms with collaborative knowledge bases such as Wikipedia. Previously, he was the Director of Professional Services at Interneer Inc. He holds an M.Sc. in Information Technology from University of Central Missouri and a B.Sc. in Mechanical Engineering from Istanbul Technical University.

Topic: Data Mining: Tools and Practices

Abstract:

We have been generating an unimaginably large amount of data, which is getting ever larger at an increasing rate. Following the trend, there have seen many valuable application types and a number of available tools, both commercial and open source, to make use of the data that is available. Having access to data and such toolsets opens up possibilities to do many things that previously could not be done. So it is important to have a good understanding of these techniques and the tools that are available. In this talk, we will look at some of the state of the art analytical processes and toolsets for data mining.

Keynote 5: Dr. Chih-Lin I 易芝玲, Chief Scientist, Wireless Technologies, China Mobile Research Institute



Biography: Chih-Lin I received her Ph.D. degree in electrical engineering from Stanford University. She has been working at multiple world-class companies and research institutes leading the R&D, including AT&T Bell Labs; Director of AT&T HQ, Director of ITRI Taiwan, and VPGD of ASTRI Hong Kong. She received the IEEE Trans. COM Stephen Rice Best Paper Award, is a winner of the CCCP National 1000 Talent Program, and has won the 2015 Industrial Innovation Award of IEEE Communication Society for Leadership and Innovation in Next-Generation Cellular Wireless Networks.

In 2011, she joined China Mobile as its Chief Scientist of wireless technologies, established the Green Communications Research Center, and launched the 5G Key Technologies R&D. She is spearheading major initiatives including 5G, C-RAN, high energy efficiency system architectures, technologies and devices; and green energy. She was an Area Editor of IEEE/ACM Trans. NET, an elected Board Member of IEEE ComSoc, Chair of the ComSoc Meetings and Conferences Board, and Founding Chair of the IEEE WCNC Steering Committee.

She was a Professor at NCTU, an Adjunct Professor at NTU, and currently an Adjunct Professor at BUPT. She is the Chair of FuTURE 5G SIG, an Executive Board Member of GreenTouch, a Network Operator Council Founding Member of ETSI NFV, a Steering Board Member of

WWRF, a member of IEEE ComSoc SDB, SPC, and CSCN-SC, and a Scientific Advisory Board Member of Singapore NRF. Her current research interests center around “Green, Soft, and Open”.

Topic: Mid-Point Perspective of the 5G Journey

Abstract: After several years’ of worldwide pursuit of 5G solutions, the campaign on 5G standards has already started, with intensive discussions on network architecture, protocol stack and physical layer technologies. At this mid-point of 5G journey, we need to make sure the soon-to-be partially specified 5G standards are on the right track to satisfy the challenging demands of mobile communication in various scenarios in 2020s or even earlier.

Towards a “Soft, Green and Super-Fast” 5G, CMCC’s 5G R&D activities followed several innovative R&D themes: 1) Rethinking Shannon to start a green journey on wireless systems; 2) Rethinking Ring & Young for no more “cells”; 3) Rethinking signaling & control to make network applications- and load-aware; 4) Rethinking antennas to make Base Stations invisible via SmartTiles; 5) Rethinking spectrum & air interface to enable wireless signals to “dress for the occasion”; 6) Rethinking fronthaul to enable Soft RAN via next generation fronthaul interface (NGFI); and 7) Rethinking the protocol stack for flexible configurations of diversified access points and optimal baseband function split between the BBU pool and the remote radio systems.

This talk will give an overview of CMCC’s 5G solutions, standardization roadmap, spectrum strategy, prototyping and field trial plans, with the focus on the 7 rethinking and their impact on 3GPP 5G new radio (NR) standardization.

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Keynote 6: Dr. James Won-Ki Hong, Dean of Graduate School of Information Technology and Professor of Computer Science and Engineering, Pohang University of Science and Technology (POSTECH), Korea



Biography: Dr. James Won-Ki Hong, Dean of Graduate School of Information Technology and Professor of Computer Science and Engineering, Pohang University of Science and Technology (POSTECH), Korea. James Won-Ki Hong is Dean of Graduate School of Information Technology and Professor in the Dept. of Computer Science and Engineering at POSTECH, Pohang, Korea. James worked as CTO and Senior Executive Vice President for KT from March 2012 to Feb. 2014, where he was responsible for leading the R&D effort of KT and its 50 subsidiary companies, and where he initiated R&D on SDN. He was Chairman of National Intelligence Communication Enterprise Association, and Chairman of Telecommunications Technology Association (TTA) Standardization Board in Korea. He co-founded SDN/NFV Forum in Korea in Oct. 2014 and has been leading it as Executive Director. His interests include network innovation (such as SDN and NFV), cloud computing, fog computing, mobile payments, Smart IPTV, and ICT convergence (such as Smart Home, Smart Grid, e-Health). He was co-founder and CTO of Netstech, a Palo Alto, USA-based startup developing network integrated ultra-dense, blade servers from 2000 to 2002. Over the past 20 years, James has been an active volunteer in various committees in IEEE, ComSoc, and KICS. He has served as Steering Committee Chair of IEEE NOMS, IM and APNOMS, as well as Chair of CNOM and KNOM. He has also been serving as EiC of Wiley's International Journal of Network Management (IJNM, <http://www.ijnm-journal.org>) as well as an editorial member of the IEEE TNSM, JNSM and JCN. He was the General Chair of IEEE NetSoft 2016.

James received his HBSc and MSc degrees in Computer Science from the University of Western Ontario, Canada in 1983 and 1985, respectively, and the Ph.D degree in Computer Science from University of Waterloo, Canada in 1991.

Representing the IEEE SDN Initiative

Topic: SDN/NFV & Open Networking Ecosystem

Abstract:

Software-defined networking (SDN) and Network Function Virtualization (NFV) are promising, emerging networking technologies for reducing CAPEX and OPEX, and for providing flexible and agile service infrastructure for network operators. Open networking systems encompass SDN, NFV and open source networking and system software needed for network softwarization. This talk will start with the motivation and need for SDN, NFV and open source networking. It will then present 'Open Networking Reference Model' and 'Open Networking Ecosystem' that covers open source projects and software for bare metal switches and servers, virtual switches, open network operating systems, controllers, orchestration, and network applications. It will also provide latest standardization efforts by SDOs as well as the latest uses cases by telcos around the world.

Keynote 7: Dr. Hao Li, senior engineer in Science and Technology, Electronic Information Control Laboratory, Chengdu, China



Biography: Dr. Hao Li received the Ph.D degree from the Department of Electronic Engineering, Shanghai Jiao Tong University, Shanghai, China, in 2009.

He is currently a senior engineer in Science and Technology of Electronic Information Control Laboratory, Chengdu, China. His research interests include wireless communication, Cyber security and data mining. He has directed several projects funded by the National High Technology Research and Development Program of China (863 Program) and published more than 10 journal and conference papers.

Topic: Cyber Threat Detection and Application Analysis

Abstract:

With the security situation in Cyberspace constantly becoming worse, Cyber threat detection has attracted a lot of researching attentions. In this keynote, existing detection technologies are firstly reviewed. Secondly, a framework of capturing the abnormal traffic of botnets is proposed. Major modules and key detection techniques are presented at the same time. The hidden threat detection in physically isolated network is also discussed in this keynote, and a detection system capable of detecting and locating hidden malicious programs is proposed and validated by experiments. Conclusions and future researching suggestions are given finally.

International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery (CyberC 2016)

Keynote 8: Charles (Zhegyu) Liu 刘征宇, CEO of AVIC CZ (Shanghai) IOV CO., Ltd



Biography: Mr. Charles (Zhegyu) Liu has over 30 years executive experiences in telecommunication, mobile, software and cloud service industries, from North America to Asia Pacific. He is currently CEO of AVIC CZ (Shanghai) IOV CO., Ltd, which is focusing on hardware, software development and platform operation for best-in-class Internet Of Vehicle services. Before his current post, he was CEO of Sky Tech, a CISCO-TCL JV company which provides Internet based multimedia collaboration services in China from 2015 to 2016. Mr. Liu also served as SVP and CTO of Appconomy, a location-based O2O cloud service company from 2013-2014. He is still a senior adviser of Appconomy.

From 2006 to 2013, he was in senior positions of RIM (maker of BlackBerry): Chairman of RIM China, GM of RIM China, Chief Rep of RIM Greater China. He built the China team and expanded business of BlackBerry mobile devices and services into China. From 2000 to 2006, Mr. Liu served in several senior positions of Entrust Inc, a global leading security company as Business director of Asia Pacific, Greater China technical director, Greater China country manager, Chief Rep of Beijing rep office.

Beside his business activities, Mr. Liu started his MNC career in Nortel Networks/Bell Northern Research as a software developer and software development manager of digital switching and security solutions in Canada.

Mr. Liu was a lecturer of Shanghai University of Science & Technology, China, and visiting scholar of University of Ottawa, Canada. He obtained M.Sc from University of Ottawa and B.Sc from Shanghai University of Science and Technology. He also studies in Guanghua Management School of Beijing University. Mr. Liu is also involved in many voluntary social activities, He served as a board Director of CCBC Beijing section, VP of Canada branch of WRSA, President of China Alumni of University of Ottawa; Visiting professor/teacher of Beijing University of Post and Telecom, Chongqing University of Post and Telecom, Neusoft University, Shanghai University, New Huadu Business School; Advisor of IT Weekly, Center for China and Globalization, etc.

Topic: Security Practice on Internet of Vehicle Service

Abstract: With the increase of connected things (e.g. cars), there is no surprise that security is one of top concerns. This presentation will summarize the needs of IOV security from both technical and operation perspectives. Its practical business impact severity will be analyzed. Finally, a best practice of all parties (e.g. service provider, users) will be shared for discussion.

Keynote 9: Alok Srivastava, Lead Architect, Microsoft Corporation, USA



Biography: Alok Srivastava is a lead architect with Microsoft services focusing on Internet of Things global scale architecture. He is focused on data ingestion from devices, in-flight analytics and scale models for machine learning with security, performance and distributed intelligence models that drive the modern IOT implementations. Alok has worked as CTO in Microsoft services and established CTO office that focuses on in-operation solution lifecycle. He was CTO for ISV team at Microsoft where he was responsible for working with Microsoft partners on scale architecture that can absorb emerging technology trends. Alok has worked as technology and business advisor to a number medium and large businesses enabling them to bring successful products to their respective markets.

Prior to joining Microsoft, Alok worked for Sybase and Oracle Corporation, leading product development and R&D teams. His played a key role in distributed replication management systems, database extensibility, multi-media management in relational databases, location based services, formalization of web services, service-oriented architecture and collaboration platform. Alok worked as CTO with his startup focusing on sales process optimization and automation. His research interest include distributed high performance and scale computing, internet of things (M2M architectures), cloud computing, service oriented architectures, complex high scale knowledge systems, data architecture and business intelligence.

Alok graduated from University of Louisville in 1994 after getting his bachelor's degree from Indian Institute of Technology, Kanpur in 1991. Alok is a seasoned technology executive, accomplished presenter and innovator with several patents. He has strong background in distributed large scale computing systems, transaction processing, data management, internet of things as well as complex system architectures.

Topic: Internet of Things: The world ahead

Abstract: By now all of us have been touched by the internet of things whether we know it or not. Some of us know how these things work, what it takes to deploy them, manage them, connect them, instrument them, discover with them and change how we think about our world today. But the ultimate change these things of Internet are driving are far beyond what many of us can imagine. These are destined to change the way we think, we work, we learn, we live and the way we do anything and everything. This keynote is focused on the future of us driven by internet of things, knowledge they generate and impact they create. We are going to get a view into the vision of near future, we will peek into the next wave of changes coming our way and understand how the emerging trends are leading us on a path that will eventually define the future of us. This journey is not 1, 3 or 5-year journey, it is something that is likely to span a generation or two. We will take a peek into emerging trends and go beyond to discuss a vision of future where human and technology collaborate harmoniously for new things to exist.

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Keynote 10: Dr. Shuo-Yen Robert Li (Bob Li) 李硕彦, Distinguished University Professor, University of Electronic Science and Technology of China (UESTC)



Biography: Professor Bob Li received PhD in Math from UC Berkeley in 1974. He taught Applied Math at MIT in 1974-76 and Math/Statistics/CS at UI Chicago in 1976-79. Subsequently he worked at Bell Labs/Bellcore for a decade. In 1989-2014 he was a chair professor at The Chinese University of Hong Kong (CUHK). Since 2014, he has been Distinguished University Professor at UESTC. He is a Professor Emeritus of CUHK and a lifetime Honorary Professor at Xidian University, Harbin Engineering University, UESTC, Southwest Jiaotong University, and Xiamen University. He also serves as the Great Master of Science for a BUPT base of the “111 IGAT Program” of China.

Prof. Li's expertise is in bridging mathematics and engineering. This includes, in particular, his pioneering work in network coding theory, algebraic switching theory, and stochastic processes. In 1997, Prof. Li constructed the “Butterfly Network” example and generalized it into network coding theory in linear algebra, which is now a popular field. These findings appeared in a 1998 conference paper and later in the award-winning article “Linear Network Coding,” where he was joined by two co-authors. Prof. Li also started the field of algebraic switching. The algebraic switching fabric was adopted by the major project “Metro Switch” of ITRI. His application of Fermat’s Little Theorem to TSPS Switching System and saved the Bell System US\$48M. “Martingale of patterns” represents Prof. Li contribution to the field of stochastic

processes. It engenders a research area with applications to various fields and has been extensively quoted by the textbook “Stochastic Processes” of Ross and other books. Prof. Li holds 33 US patents and is a winner of IEEE Sumner Award.

Topic: Network Coding -- Applications and Basics

Abstract: Network coding (NC) brings a paradigm shift in the data transport mode from the traditional store-and-forward. The linear-algebraic theory of NC structures data units as a finite field, and the fundamental theorem guarantees the best possible throughput. Linearity makes the hardware/software implementation feasibly fast for practical applications, including wireless communications, redundant storage, P2P content delivery, IC layout, security, optical communications, sensor networks, etc. All these applications are under different contexts. Luckily the Butterfly Network provides an example that is comprehensible to people in all walks of life and, at the same time, is generalizable into elegant mathematics.

The wide applicability has generated interest in multi-disciplinary research among computer science, information/coding theory, matrix theory, networking, operations research, and switching. NC is now one of the most active fields in information technology. Since 2003, the NC literature

Keynote 11: Jia Zeng, PhD, Senior Researcher, Huawei Noah's Ark Lab, Hong Kong



Biography: Dr. Jia Zeng received the B.Eng. degree from the Wuhan University of Technology, Wuhan, China, in 2002, and the Ph.D. degree from the City University of Hong Kong, Hong Kong, in 2007. He is a senior researcher at Huawei Noah's Ark Lab, Hong Kong. His research interests are machine learning and spatiotemporal big data mining applications. His major contributions include probabilistic graphical models and telco big data applications. He has co-authored one book and published more than 60 papers in top journals and conferences such as IEEE TPAMI, TKDE, TFS, ACM TIST, CIKM, JMLR, SIGMOD, VLDB, WWW and ICDM. He is a member of the CCF, the ACM and a senior member of the IEEE.

Topic: Telco Big Data

Abstract: Big data have been improving steadily user experience and productivity. Telco big data come from the telecommunication (telco) platform composed of the BSS (Business Supporting System) and OSS (Operations Supporting System) systems, which accumulate billions of customers’ 7-dimensional (7D) data including 1D for real ID (basic information), 1D for customer behavior data (communication, internet, consumption, complaint, network experience and recommendation feedback), 1D for social network, 1D for time series and 3D for spatial information (outdoor base station and indoor small cell localization). Telco big data platform can support modeling of 7D customer data, which enables three business upgrades: customer insight, network insight and data openness. This talk will describe and discuss some

Keynote 12: Anup Kumar, Professor, University of Louisville, USA

Biography: See Page 5.

Topic: A Framework for Next Generation Cloud Data Storage

Abstract: This talk will discuss characteristics of current cloud storage options. Compare various features provided by different vendors, and identify weaknesses of current mechanisms. It will highlight the need for a more comprehensive storage mechanism that takes into the security, reliability, theft prevention and protection from modification. In addition the storage structures should be proactive in identification if some type of data theft or modification is in progress. It will provide a comprehensive solution for such a cloud storage mechanism.

Keynote Chair: Bin Xie(谢彬), CEO of InfoBeyond & NXdrive, USA

Biography: See Page 6.

International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery (CyberC 2016)

Registration 注册: 16:00— 18:00 —October 12 or October 13 Morning and Afternoon
(Location: see on-site notice)

Program Schedule (会议安排)

Welcome Party (CyberC & Big Data Social Venue): 18:00— 20:00, October 12, 2016 (38 楼特味轩)

Date and Location (时间和地点): October 13, 2016 – Main Conference Room (东坡厅)

Main Conference Room (东坡厅)

Time	Speaker	Topic
8:00 – 8:20	Anup Kumar and Bin Xie	Conference Opening Ceremony and Logistics
8:20 – 9: 00	Prof. Mahmoud Daneshmand, Stevens Institute of Technology, USA	Big Data, Internet of Things, Cybersecurity, Stream Analytics & Knowledge Discovery
9:00 – 9:40	Naresh Sadhnani, Head of BI Big Data and Analytics, SENA Region, Tech Mahindra	Data as a Strategic Asset
9:40 – 9:50		Break
9:50 – 10:30	Dr. Jia Zeng, Senior Researcher, Huawei Noah's Ark Lab, Hong Kong	Telco Big Data
10:30 – 11:10	Prof. Xiaolong Xu 徐小龙, Nanjing University of Posts & Telecommunications, China	Green Cloud Computing - Process and Storage Infrastructure for Big Data
10:10 – 11:40	Prof. Yegin Genc, Pace University, New York, USA	Data Mining: Tools and Practices
11:40 – 12:10	Dr. Chung-Min Chen, 陳仲民, VP of Data Science, iconectiv, USA	Big Data Summit Summary/Q&A
12:10 – 13:00	Lunch Buffet 自助餐 (38 楼特味轩—38th floor)	

Important notes for CyberC paper authors:

- ◆ Congratulation & Welcomes! — Please register yourself at the CyberC onsite to retrieve your conference material.
- ◆ The conference schedule may be adjusted by program organizers according to actual situations.
- ◆ All papers have to be presented with PPT.
- ◆ The time slots — minimal time: 10 minutes, and maximal time:20 minutes.
- ◆ Each session will have a Session Chair. Extra time is permitted under the control of Session Chair and the ending time is extendable to 19:00 PM.
- ◆ For your presentation, you can use your computer or the computer from Session Chair which is the window system.
- ◆ The session number is consistent with those in the CyberC Proceeding. Please check your paper schedule carefully.
- ◆ Please take care of your belongs all the time and enjoy the conference.

International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery (CyberC 2016)

Registration 注册: 16:00— 18:00 —October 12 or October 13 Morning and Afternoon
(Location: see on-site notice)

Program Schedule (会议安排)

Date and Location (时间和地点): October 13, 2016

Main Conference Room (东坡厅)			Conference Room B (乐天厅)
Time	Speaker	Topic	13:00 — 15:20
13:00 – 13:40	Dr. Chih-Lin I 易芝玲, Chief Scientist, Wireless Technologies, China Mobile Research	Mid-Point Perspective of the 5G Journey	Session 1: Security, Privacy, and Protection (乐天厅)
13:40 – 14:20	Prof. James Won-Ki Hong, Dean of Graduate School of IT, POSTECH, Korea	SDN/NFV & Open Networking Ecosystem	
14:20 – 15:00	Dr. Hao Li, senior engineer, Electronic Information Con- trol Lab, Chengdu, China	Cyber Threat Detection and Appli- cation Analysis	
15:00 – 15:20	Break		15:30 — 18:00
15:20 – 16:00	Charles (Zhegnyu) Liu. CEO of AVIC CZ (Shanghai) IOV CO, China	Security Practice on Internet of Ve- hicle Service	Session 2: Access Control, Au- thentication, Key, Privacy and Security (乐天厅)
16:00 – 16:40	Alok Srivastava, Lead Archi- tect, Microsoft Corporation, USA	Internet of Things: The world ahead	
16:40 – 17:20	David Lu 陆惠晨, Vice President, Business Solutions Development, AT&T, USA	SDN/NFV Summit Summary/Q&A	
17:20 – 18:00	Networking and Dialog with Speakers (东坡厅)		
18:30 – 20:00	Dinner Buffet 自助餐 (38 楼特味轩—38th floor)		

International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery (CyberC 2016)

Program Schedule (会议程序)

Date and Location (时间和地点): October 14, 2016

Main Conference Room (东坡厅)				
8:00 – 8:20	Bin Xie and Xiaolong Xu	Conference Logistic Announcement		
8:20 – 9:00	Dr. Shuo-Yen Robert Li 李碩彥, Distinguished University Professor, UESTC, China	Network Coding -- Applications and Basics		
9:00 – 9:40	Dr. Anup Kumar, Professor, University of Louisville, Kentucky, USA	A Framework for Next Generation Cloud Data Storage		
9:40 – 10:00	Break			
	Main Conference Room A(东坡厅)			
10:00 – 12:00	IEEE Big Data Analytics Competition Presentations			
12:00 – 13:00	Lunch Buffet 自助餐 (38 楼特味轩—38th floor)			
	Conference Room B(乐天厅)	Conference Room C(宽窄厅)	Conference Room D (春熙厅)	Conference Room E(合江厅)
13:00 – 15:20	Session 3: Algorithm, Mobile Services, Distributed System, and Scalability	Session 5: Big Data and Machine Learning	Session 7: Resource, Monitoring, Control, and Performance	Session 9: Wireless Communications and Mobile Computing
15:20 – 15:30	Break			
15:30 – 18:00	Session 4: Protocols, Analysis, Social Networks, and Theory	Session 6: Big Data and Cloud Computing	Session 8: Smart Sensor Networks	Session 10: SDN/NFV and Cognitive Networks
18:00 –	Banquet (Best Paper and Big Data Competition Winner Announcement) (春熙&锦里)			

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Session 1: Security, Privacy, and Protection

Session Chair: Xiaolong Xu, Nanjing University of Posts and Telecommunications, China

(Conference Room B (乐天厅) 13:00 — 15:20, October 13)

Authors (包括演讲人)	Titles (报告主题)
Zhang Yujia,Pang Jianmin	A New Compile-time Obfuscation Scheme for Software Protection
Xiaolong Xu, Guangpei Liu, Jie Zhu	Cloud data security and integrity protection model based on distributed virtual machine agents
Jing Liu, Yuan Wang, Yongjun Wang	Inferring Phylogenetic Networks of Malware Families from API Sequences
Xiaolong Xu, Fuqiang Wan, Yanfei Sun	Privacy Protection of data attributes in cloud environment
Min Huang, Kai Bu, Hanlin Wang, Kaiwen Zhu	Reviving Android Malware with DroidRide: And How Not To
Mladen Vukašinić	Software System For Automatic Reaction To Network Anomalies And In Real Time Data Capturing Necessary For Investigation Of Digital Forensics
Xinling Kong, Yonghong Chen, Hui Tian, Tian Wang, Yiqiao Cai, Xin Chen	A Novel Botnet Detection Method Based on Preprocessing Data Packet by Graph Structure Clustering
Shuangmao Yang, Ji Wang,Jing Zhang, Hao Li	Cyber Threat Detection and Application Analysis

Session 2: Access Control, Authentication, Key, Privacy and Security

Session Chair: TBD

(Conference Room B (乐天厅) 15:30 — 18:00, October 13)

Authors (包括演讲人)	Titles (报告主题)
Shuai Chen,Bing Li	A Dynamic Reseeding DRBG Based on SRAM PUFs
Yingjun Zhang , Kai Chen, Yuling Liu, Yifeng Lian	A Lattice-based Access Control Model for Social Networks
Jinjiang YANG, Dongming ZHANG, Yu Gong, Bo LIU	A Novel Design of Pipeline MDC-FFT Processor Based on Various Memory Access Mechanism
Hui Qi, Xiong Luo, Xiaoqiang Di, Jinqing Li, Huamin Yang, Zhengang Jiang	Access Control Model Based on Role and Attribute and Its Implementation
Weifeng Lu,Siguang Chen	A LEAP PLUS Key Management Scheme with Sliding Time Interval
Han Dao-jun	A Dynamic Access Control Policy Based on Hierarchical Description
Haitao Yang,Jian Zhang	Network Boundary and Protection
Zhijun Wu, Jun Jiang, Meng Yue	A Particle Filter-based Approach for Effectively Detecting Low-rate Denial of Service Attacks

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Session 3: Algorithm, Mobile Services, Distributed System, and Scalability

Session Chair: TBD

(Conference Room B (乐天厅) 13:00 — 15:20, October 14)

Authors (包括演讲人)	Titles (报告主题)
Qin Qibing, Tan Long	An Effective Hybrid Algorithm for Fast Mining Frequent Itemsets
Yirong Wang, Wenwei Chen, Runze Wu, Zili Liu	FIM Algorithm for Multi-source Heterogeneous Information in Power Grid Intelligent Dispatching
Hyeunjee Kim, Hoonha Choi, Young-woo Kim, Jaechun No	MS2 : NAND-Flash SSD-Based Multi-layered Storage Management System
Shulong Wang, Yibin Hou, Fang Gao, Songsong Ma	Ontology-based Resource Description Model for Internet of Things
Fengcai Qiao, Kedi Chen	Predicting Protest Events with Hidden Markov Models
Tuo Shi	Mass Incidents Prediction Based on ID3-SMOTE Algorithm
Xiaolei Yang, Xuejun Zhao, Xiujiu Yuan	Distributed Air Traffic Flow Management at Terminal Control Area
Pan Ying, Li Guan-Yu, Lu Zhong-Jun	Community Division-Based SWoT Ontology Directory Service
LU Zhong-Jun, LI Guan-yu, PAN Ying	A Method of Meta-Context Ontology Modeling and Uncertainty Reasoning in SWoT
WANG Yong-an, ZHU Bin, LI Guan-yu	GATEWAY-BASED SEMANTIC COLLABORATION METHOD IN SWoT

Session 4: Protocols, Analysis, Social Networks, and Theory

Session Chair - TBD

(Conference Room B (乐天厅) 15:30 — 18:00, October 14)

Authors (包括演讲人)	Titles (报告主题)
Fang Gao, Zhangqin Huang, Shulong Wang, Xinrong Ji	A Scalable Object Detection Framework Based on Embedded Manycore Cluster
Peng Zhang, Sandeep Neema, Ted Bapty	A Study of Collaborative Efforts and Proposed Visualizations in Domain-Specific Modeling Environment
Leilei Chang; Xiaowei Ma; Liuying Wang; Xiaodong Ling	Comparative Ananalysis on the Conjunctive and Disjunctive Assumptions for the Belief Rule Base
Xinlei Wei, Jinyao Yan, Zheng Chen, Tuo Shi	Analysis of Crime Rate Distribution Based on TPML-WMA
Juan Shi, Gang Chen, Kin Keung Lai	Factors Dominating Individuals' Retweeting Decisions
Yinglong Diao, Ke-yan Liu, Lijuan Hu, Dongli Jia, Weijie Dong	Classification of Massive User Load Characteristics in Distribution Network based on Agglomerative Hierarchical Algorithm
Cangzhou Yuan, Shenhong Wei, Yutong Wang, Yue You, ShangGuan, ZiLiang	Android Applications Categorization Using Bayesian Classification
Honglei Niu, Zhiyong Liu	Spatial Panel Data Analysis on the Effect of Urbanization on Energy Consumption in China
Xinran Wang, Xi Feng, Jianping Chai	The Influence of Film IP Features on the Box Office
LIU XIA, YANG JIE, CHEN LEI, CHEN MING-RUI	Prediction for Air Route Passenger Flow Based on a Grey Prediction Model

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Session 5: Big Data and Machine Learning Session Chair – TBD

(Conference Room C (宽窄厅) 13:00 — 15:20, October 14)

Authors (包括演讲人)	Titles (报告主题)
Xiaoli Lin, Wei Huangfu, Fei Wang, Liyuan Liu, Keping Long	A breast cancer risk classification model based on the features selected by novel F-score index for the imbalanced multi-feature dataset
Kaixia Shao, Xiaofeng Zhou	An Improved Classification Algorithm Based on Exposure Pattern
Amal Babour, Javed I. Khan,, Fatema Nafa	Deepening Prose Comprehension by Incremental Free text Conceptual Graph Mining and Knowledge
Jingyu Sun, Xiaomei Zhang, Quan Liu, Liang Ju, Zhengying Li	Entity Hierarchy Construction for Repair Request Records
Yifan Jia, Li Qu	Improve the Performance of Link Prediction Methods in Citation Network by using H-index
Fatema Nafa, Javed I. Khan, Salem Othman, Amal Babour	Discovering Bloom Taxonomic Relationships between Knowledge Units Using Semantic Graph Triangularity Mining
Xing Li, Guolin Li, Rick Fishbune	A Novel Missing-Rate-Oriented Selective Algorithm for Handling Missing Data by Minimizing Imputation
Wengang Chen, Ruijie Wang, Runze Wu, Liangrui Tang, Junli Fan	Multi-source and Heterogeneous Data Integration Model for Big Data Analytics in Power DCS

Session 6: Big Data and Cloud Computing Session Chair – TBD

(Conference Room C (宽窄厅) 15:30 — 18:00, October 14)

Authors (包括演讲人)	Titles (报告主题)
Yiming Tong, Zeyu Zheng, Dianzheng Fu, Yang Fu, Shuai Li	A Cloud Computing Platform for Data Analysis based on R Cluster
Shuo Lei, Zexi Li, Binglin Wu, Haiquan Wang	Research on Multi-objective Bus Route Planning Model Based on Taxi GPS Data
Chengxu, ZHANG YU-Shi	Research Service Discovery Mechanism Based on Route Optimization of Big Data Service
Sajid Bashir	Machine Learning Techniques for SIM Box Fraud Detection
Yue Zhou, Jinyao Yan	A Logistic Regression Based Approach for Software Test Management
Guidong Sun, Xin Guan	Research on Hybrid Multi-attribute Decision-Making
Chen Guo, Yong Chai, Cong Wang	Multi-source heterogeneous data recognition based on linguistic labels
Xianwen He, Gaoming Huang, Gaoqi Dou, Jun Gao	Semi-Blind Channel Estimation and Symbol Detection Using Combined Superimposed Training
Wei Yang	An Electronic Seal System Based on Cloud Computing
Shengxin Zhu, Tongxiang Gu, Xiaowen Xu, Zeyao Mo	Information Splitting For Big Data Analytics

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Session 7: Resource, Monitoring, Control, and Performance Session Chair- TBD

(Conference Room D (春熙厅) 13:00 — 15:20, October 14)

Authors (包括演讲人)	Titles (报告主题)
Liang Xu, Yuming Mao, Supeng Leng, Guanhua Qiao, Quanxin Zhao	A Cluster-based Resource Allocation Strategy with Energy Harvesting in Dense Small-cell Networks
Nie Qingbin, Li Pinghua	An Improved Ant Colony Optimization Algorithm for Improving Cloud Resource Utilization
Peng Tang, Anping Song, Zhixiang Liu, Wu Zhang	A Implementation and Optimization of Lattice Boltzmann Method based on the Multi-node CPU+MIC Heterogeneous Architecture
Minhui Lv, Wei Xiong	Cache-aware Spatial Indices on Chip Multi-processors: Limitations and Opportunities
ZhiHua Gan, Mingquan Zhang, Zhimin Gu, Jizan Zhang	Minimizing Energy Consumption for Embedded Multicore Systems Using Cache Configuration and Task Mapping
Chnhui Yuan, Hongli Zhao	Implementing VoIP Voice Communication System based on Soft-switch Technology
Lijuan HU, Ke-yan LIU, Yinglong DIAO, Xiaoli MENG, Wanxing SHENG	Operational Reliability Evaluation Method Based on Big Data Technology
Luo Yong, Gao Jun	A Complex Shortwave Transmitting Equipment Monitoring System Based on Completeness
Xianlian Zhang, Minhui Wang	Real-time Vehicle Wireless Remote Positioning and Monitoring System Based on GPRS Network and Beidou
Huayu Zhou Zhihua Li	An Intelligent Parking Management System based on RS485 and RFID
Yongbin Liu, Xuwei Piao, Chaojun Hou, Kai Lei	A CUBIC-Based Explicit Congestion Control Mechanism in Named Data Networking

Session 8: Smart Sensor Networks

Session Chairs- Chi-Tsun (Ben) Cheng, The Hong Kong Polytechnic University, Hong Kong
Zhihai Rong, University of Electronic Science and Technology of China, China
Xinzhixu, State Grid Information and Telecommunication Branch

(Conference Room D (春熙厅) 15:30 — 18:00, October 14)

Authors (包括演讲人)	Titles (报告主题)
Chao Fan, Junxuan Huang, Dan Yang, Zhihai Rong	Modeling POI transition network of human mobility
Xinzhixu, Guochun Li, Qiaomu Wang, Zhou Yuan, Mingbao Fan	A Quasi-dynamic video conference resource backup strategy based on cloud
Zelang Wang, Guochu Shou, Yihong Hu, Zhigang Guo	Research and Implementation of Resource Scheduling Mechanisms Based On Software Defined Security
Zhou Yuan, Guochun Li, Qiaomu Wang, Xinzhixu, Tao Wen	Research and Implementation of Hierarchical Control of Large Scale Video Conference based on Conference Management System
Kai-Yin Fok, Chi-Tsun Cheng, Chi K. Tse, Nuwan Ganganath	A Relaxation Scheme for TSP-based 3D Printing Path Optimizer
Nuwan Ganganath, Chi-Tsun Cheng, Chi K. Tse	Rapidly Replanning A*
Qinyin Chen, Y Hu, Zhe Chen	Node localization Algorithm of Wireless Sensor Networks for Large Electrical Equipment Monitoring Application
Jing V. WANG, Chi-Tsun Cheng, Chi K. Tse	Effects of Correlation-based VM Allocation Criteria to Cloud Data Centers
Yue Zhang, Xiangyu Bai, Junli She, Zhichao Song	Congestion Control Balancing Mechanism Based on Energy-Constraint in Mobile Delay Tolerant Network
Alexander Basan, Elena Basan, Oleg Makarevich	Methodology of Countering Attacks for Wireless Sensor Networks Based on Trust
Aiguo Li, Yongwei Li	Portable RFID Location System in Security Field
LI XingGuo, WANG JunFeng, Bai LinLin	LEACH Protocol and its Improved Algorithm in Wireless Sensor Network

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Session 9: Wireless Communications and Mobile Computing

Session Chair- TBD

(Conference Room E (合江厅) 13:00 — 15:20, October 14)

Authors (包括演讲人)	Titles (报告主题)
Guihua Kang, Hongbo Kang	A new quasi periodic triggering mechanism of handover under a High Speed Mobile Environment
Xiaokai Zhang,Gang Wu,Bangning Zhang,Daoxing Guo,Kefeng Guo	Blind Recognition of RS Codes Based on Galois Field Fourier Transform
Bo Jiao, Xuejun Yuan, Fei Huang, Xunlong Pang, Yican Jin, Zhe Han	Performance of two normalized Laplacian spectral features on sampling algorithms
Bin Yang, Xinyu Li	Secure Transmission of Amplify-and-Forward Relay System with Hybrid Sending Signals
Liu Jian-min;Xiang Yu;Liu Jian-bin	Analysis of the Propagation Characteristics of Generalized Ridge Waveguides Using 2-D Finite Difference Frequency Domain Method with Sub-regions Division
Geng, Xiongfei	Ship Scheduling in Inland Waterway Networks Based on Cellular Automata Graph
Wang Yongbin, Li, Lihua, Li, Renshen, Fu, Tianhui	An Improvement Method of Frequency Offset Estimation Performance in Communication System Carrier Synchronization
Dongli Jia	Study on Evaluation of Voltage Sag Exposed Areas in Large Scale Complex Distribution Network
JIANG Lei;SHEN Ye;FENG Jing	Joint Behavior Detection in Wireless Sensing Networks
Ren Duan,Dingyi Fang,Chengui Zhao	A QoS Opportunistic Routing based on Directional Transmission for Wireless Sensor Networks

Session 10: SDN/NFV and Cognitive Networks

Session Chair- TBD

(Conference Room E (合江厅) 15:30 — 18:00, October 14)

Authors (包括演讲人)	Titles (报告主题)
Xingwei Wang, Lianbo Ma, Min Huang	Optimal Controller Placement Problem in Internet-oriented Software Defined Network
Chunfeng Wang,Xiaosong Yu	Application of Virtualization and Software Defined Network in Satellite Network
Jianglong Wang, Guochu Shou, Yihong Hu, Zhigang Guo	A Multi-Domain SDN Scalability Architecture implementation based on the Coordinate Controller
Kean Yu, Cong Yu, Tingting Wang, Jiang Fan, Yan Li	Application of Software-Defined Network with Software-based Architecture in Enterprise Data Center
Ihab AbdelWahab Ali	Overview of Software Defined Networks: Current Status and Future Trends
Hui Ren,Xiaoming Li,Junjie Geng,Jinyao Yan	A SDN-based Dynamic Traffic Scheduling Algorithm