2017 International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery/Big Data Summit

(Name in Chinese: 第九届网络分布式计算与知识发现国际会议/大数据峰会)

October 12-14, 2017

Sofitel Nanjing Galaxy (南京索菲特银河大酒店)

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Co-hosted by: Nanjing University of Posts & Telecommunications, Jiangsu Computer Society, University of Louisville

Welcome

It is our greatest pleasure to welcome you to CyberC (International Conference on Cyber-enabled distributed computing and knowledge discovery). Thanks are first expressed to your participation. CyberC is an international conference on cyber-enabled technology. This conference covers the R&D topics of cyber-networks, machine learning, cyber security, wireless communications, smart sensor network, and Internet of Things, and other cyber-related research. CyberC started in 2009 as a forum for presentation and discussion of innovative cyber-enabled technologies.

Thanks for the supports from the IEEE Big Data, IEEE SDN, IEEE communication society, and IEEE computer society. We also sincerely express our appreciation to Huawei, Tech Mahindra, Pivotal/EMC, HP Enterprise, RainStor, Teradata, Samsung, Microsoft, Comrise, and InfoBeyond.

CyberC is impossible without these sponsorships and participations from these companies.

Enjoy the conference!

CyberC 2017/Big Data Summit Chairs
September 30, 2017

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- Please register yourself at the CyberC onsite to retrieve your conference material.
- The conference schedule may be adjusted by program organizers without prior notification.
- All papers have to be presented with PPT.
- The time slots — minimal time: 12 minutes, and maximal time: 20 minutes.
- Each session will have a Session Chair. Extra time is permitted under the control of Session Chair.
- For your presentation, you can use your computer or the computer from Session Chair which is the window system.
- Please take care of your belongings all the time and enjoy the conference.
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International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery

CyberC 2017 Summits Co-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.

Chi-Ming is a Steering Committee member of the IEEE SDN Initiative. In addition to CyberC, he also organizes the annual IEEE Emerging Technology Reliability Roundtable (ETR-RT) since 2014.

SDN/NFV Summit Moderator: David Lu(陆惠晨), Vice President, D2 Platform and Systems Development, 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.

CyberC 2017 Summits Co-Organizer: Tzyh-Jong (TJ) Wang, PhD, AT&T, USA

Dr. TJ Wang is currently with AT&T since 2008. He is a system engineer for mobility operations support systems focusing on mobility network end-to-end performance and reliability.

Prior to joining AT&T, TJ was with DEC, Bellcore, Lucent Technologies and UTStarcom between 1987 and 2008.

He received his Ph.D. in Industrial Engineering from the University of Wisconsin-Madison in 1987; and B.S. in Industrial Engineering from Tsing Hua University, Taiwan, in 1978.

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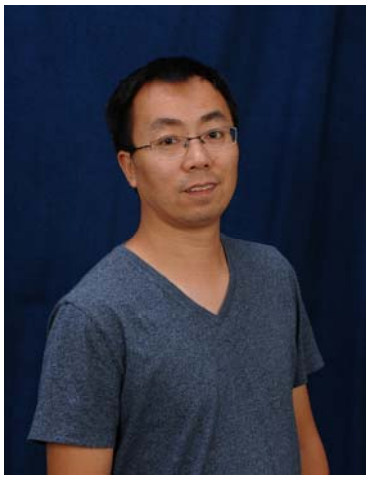
Big Data Summit Moderator: Chung-Min Chen (陳仲民） Ph.D. , VP of Data Science, iconectiv, USA

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 Science from University of Maryland at College Park and B.S. in Computer Science from National Taiwan University.

Program Cochair: Bin Xie (谢彬), CEO & Funder, InfoBeyond Technology LLC (www.InfoBeyondtech.com),



Dr. 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 founder & CEO of the InfoBeyond. InfoBeyond currently offers two security products (i) NXdrive for data security against data breach, and (ii) Security Policy Tool (www.securitypolicytool.com) for access control cyber security. InfoBeyond is a team that 60% of them are Ph.D. and the business grows 35% per year averagely.

Dr. Xie has published 70+ papers in the IEEE conferences and journals. His publications has more than 2000 citations. His research interests are focused on cyber security, wireless communication, big data, and networking and user performance. He is/was the Principal Investigator of 20+ R&D projects that are supported by Department of Defense (Army, Navy, Air Force, Missile Defense), Department of Energy, National Institute of Standards and Technology, Department of Transportation, Department of Commerce, and Kentucky State. Dr. Xie has been the Principal Investigator of 6+ millions of research funding in the last few years.

Dr. Xie 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 severed as a member of NIH Special Emphasis Panel on System Science and Health in the Behavioral and Social Sciences, ZRG1 HDM-Q (50), 2012-2017. 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.

Read more about our news on: https://securitypolicytool.com/news and follow me at https://www.linkedin.com/company/3724084/. Dr. Xie likes fishing and planting.

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.

Prof. Anup Kumar 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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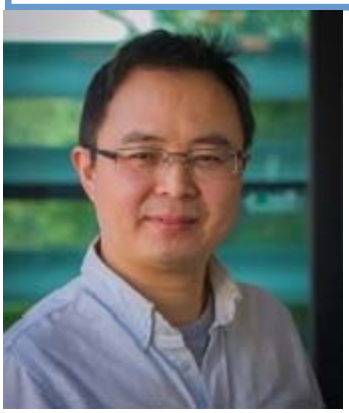
Program Co-chair: Xiaolong Xu 徐小龙， PhD, Professor, Nanjing University of Posts & Telecommunications,

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.

Keynote 1: Dr. Shui Yu (余水), Deakin University, Australia



Biography: Shui Yu received his B.Eng (Electronic Engineering) and M.Eng (Computer Science) degree from University of Electronic Science and Technology of China , P. R. China in 1993 and 1999, respectively. He also obtained an Associate Degree in Mathematics from the same university in 1993. He received his PhD (Computer Science) from Deakin University in 2004. He is currently a Senior Lecturer of School of Information Technology, Deakin University, Melbourne, Australia. Before joining Deakin University , Dr.Yu was a Lecturer of Computer College in University of Electronic Science and Technology of China. He has a good experience of industry, especially in network design and software development organization and implementation. His research interests include Big Data Theory and Application, Networking Theory and Application, and Mathematical Modelling. He dedicates himself in advance human understanding of networks and information, including their measurement, representation, analysis, and application. As a semi-mathematician, he targets on narrowing the gap between theory and application using mathematical tools.

Dr Yu is a Guest Professor of South West University of China, an overseas expert of the national 111 project at Beijing Jiaotong University. Dr. Yu is a Member of AAAS, ACM, and a Senior Member of IEEE. Shui Yu is a Senior Member of IEEE, and a member of AAAS and ACM, the Vice Chair of Technical Subcommittee on Big Data Processing, Analytics, and Networking of IEEE Communication Society, and a member of IEEE Big Data Standardization Committee.

Dr Yu's research interest includes Security and Privacy in Networking, Big Data, and Cyberspace, and mathematical modelling. He has published two monographs and edited two books, more than 150 technical papers, including top journals and top conferences, such as IEEE TPDS, IEEE TC, IEEE TIFS, IEEE TMC, IEEE TKDE, IEEE TETC, and IEEE INFOCOM. Dr Yu initiated the research field of networking for big data in 2013. His h-index is 22.

Dr Yu actively serves his research communities in various roles. He is currently serving the editorial boards of IEEE Communications Surveys and Tutorials, IEEE Access, IEEE Journal of Internet of Things, IEEE Communications Magazine, and a number of other international journals. He has served more than 70 international conferences as a member of organizing committee, such as publication chair for IEEE Globecom 2015 and 2017, IEEE INFOCOM 2016 and 2017, TPC co-chair for IEEE Big Data Service 2015, IEEE ATNAC 2014, IEEE ITNAC 2015; Executive general chair for ACSW2017.

More information of Dr Yu can be found at http://www.deakin.edu.au/~syu/

Topic: Networking for Big Data: Challenges and Opportunities

Abstract: Big Data is one of the hottest topics in our communities, and networking is an indispensable corner stone for the fancy big data applications. As a result, there is an emerging research branch, Networking for Big Data (NBD), in networking and communication fields. In this talk, we will firstly overview the current landscape of this energetic area, and then present the unprecedented challenges in this new domain, and finally discuss the current research directions in the main topics in networking for big data. We humbly hope this talk will shed light for forthcoming researchers to further explore the uncharted part of this promising land.

Keynote 2: Anirban Bhattacharya, Tech Mahindra, India

Biography: Anirban Bhattacharya currently leads the Data & Analytics Consulting & Pre-sales initiatives for Asia-Pacific and India for Tech Mahindra's Communications and Media & Entertainment verticals. With an experience spanning circa 15 years in core BI, Big Data & Analytics, Anirban has been through the diverse journeys of Classical DW & BI, Data Warehouse Appliances and Big Data Analytics. His experiences span across different geographies, various customers, diverse delivery models and a wide variety of technologies and platform in this space.

Having been associated with Tech Mahindra for around 14.5 years, he has played a wide variety of roles in this space including BI / Big Data Consulting, EDW Delivery & Design assurance, Hybrid BI platform implementation, Analytics Transformation Roadmap and BI / Analytics Architecture Review. His domain acumen lies primarily in Communications along with Banking & Financial services and Sales & Distribution. Anirban has worked and interfaced avidly with customers across diverse geographies that include Europe, United Kingdom, Asia Pacific, Africa, India and the Middle-East and his technology skills span across the BI / Analytics value-chain including Databases and DW Appliances, Data Integration & ETL, Data Exploitation and Big Data. His current interests primarily include Machine Learning, Artificial Intelligence and Cognitive Computing.

Topic: Data and Analytics – Transforming into a Cognitive and Convergent space

Abstract: The talk will cover the following topics: (i) Data explosion – the peril and the opportunity, (ii) The radical business shifts, (iv) Today's Big Data Analytics Business asks (v) Cognitive – the notion and significance, (vi) Moving towards a "Converged" BI landscape. The session would focus on salient aspects of today's Data & Analytics space and its potential to enable business-value for global enterprises through insights and intelligence. The key points of the discussion would include the Data explosion of today and the associated opportunities, the observed business-shifts in today's world and how that has triggered fundamental changes in the business-asks. It would also feature a section on Data Wrangling and how it helps accelerate the realization of Data-Value. The session would conclude with an outline of the BI & Analytics journey over the years to its current 'converged' state in.

Keynote 3: Dongfeng Yuan 袁东风, Shandong University, China

Biography: Dongfeng Yuan, Ph.D., is a full professor and doctoral supervisor in the School of Information Science and Engineering with Shandong University, Jinan, China.

Professor Dongfeng Yuan received his M. S. degree from Shandong University in 1988 in electrical engineering and got his Ph.D. degree in electrical engineering from Tsinghua University in China in January 2000. Now, he is the director and chief scientist of Collaborative Innovation Center of China Rainbow Project, director of Shandong Provincial Key Laboratory of Wireless Communication Technologies, vice-dean of Institutes of Advanced Information Technology of Shandong University, and also the chairman of IEEE Shandong section. He is the Principal Investigator (PI) of more than 10 national scientific research projects and more than 20 provincial projects in recent years. Till now, he has published more than 400 high level academic papers, including top journals and top conferences, such as IEEE JSAC, IEEE TWC, IEEE TCOM, IEEE TVT, IEEE GLOBECOM, IEEE ICC. He has applied for more than 110 national invention patents (54 patents have been granted, 1 patent has been successfully exploited in industrial products). He has won the second prize of State Natural Science Award of China, the first prize of Science and Technology Progress Award of Shandong Province, the second prize of Natural Science Award of Shandong Province, respectively.

He has been engaging in research on the new generation of information technologies, such as cloud computing, big data analysis and wireless communications..

Topic: Wireless Big Data Analysis: A Machine Learning Perspective

Abstract: With the development of advanced wireless communication technologies and the prevalence of mobile devices, we humans has moved into an area of big data. Big data has become a significant area and got huge attentions in both research communities and industries. Wireless big data, which denotes the data generated from wireless devices and networks (cellular networks, mobile phones, sensor networks, etc.), has brought many challenges to current wireless communication systems, from network architecture to transmission technology and application level resource optimization. By analyzing the massive volume and high velocity wireless big data, we can obtain valuable insights into the behavior patterns of mobile users and functional mechanisms of wireless systems, which can improve the performance of wireless networks. How to leverage the power of machine learning techniques, such as deep learning, reinforcement learning and ensemble learning, to improve the efficiency of wireless networks is a critical research point.

In this talk, we will give a survey of wireless big data related techniques and describe a possible network architecture for future wireless communications. Then we will introduce several specific examples in data driven wireless communications from a machine learning perspective. In the first example, based on the data obtained from wireless channel measurements, we analyze wireless channels using convolutional neural networks. In the second example, we study the clustering-based methods to reduce the number of data transmission. Lastly, we propose a spatial-temporal traffic prediction method using DenseNet in cellular networks.

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Keynote 4: Dr. Chang Tan 谭昶, Vice Director. Research Institute of iFlyTech, China

Biography: Dr. Chang Tan received his Ph.D. in Computer Science from the he University of Science and Technology of China (USTC), Hefei, China, in 2014. He has founded Anhui RongData Co., Ltd. (national high-tech enterprises). He is currently Deputy Dean of iFLYTEK Bigdata Research Institute, responsible for bigdata technology research and application in the field of Smart City, Computing Advertising and Recommender System, etc.

Dr. Tan is mainly engaged in research and application of data mining and recommendation system technology. He has many years of research and practical experience in bigdata technology and personalized recommendation, with a focus on bigdata platform construction, user behavior analysis, mobile data analysis.

Dr. Tan has participated in more than 10 national research projects such as 863, National Natural Science Foundation of China. He has published prolifically in refereed journals and conference proceedings, such as ACM TIST, IEEE ICDM and ACM CIKM. He led the R&D team to complete a number of technical cooperation projects for Alibaba, China Mobile, China Telecom, Beijing Railway Bureau and other well-known domestic enterprises. For his outstanding contributions to data mining, he was elected an expert committee of China Computer Federation Task Force on Big Data in 2016.

Topic: Big Data Practice at the iFLYTEK

Abstract: Characterized by Big Data and Artificial Intelligence, the new generation of Information Technology is changing every corners of our human society to provide fast growing information service that is highly precise and intelligent. As the leading enterprise of Artificial Intelligence and Internet technologies with 90 millions of users, we at the iFLYTEK are repeatedly explore, practice and thinking on how to apply the Artificial Intelligence to dig deeper for values from the sea of Big Data and closely integrate Big Data Analytics with Artificial Intelligence technologies.

Keynote 5: Guangxia Xu 徐光侠, Chongqing Univ. of Posts and Telecommunications

Biography: Guangxia Xu received the Ph.D. degree in Computer Science and Technology from Chongqing University(CQU), Chongqing, China. She is a professor in the School of Software Engineering, Chongqing University of Posts and Telecommunications (CQUPT), Chongqing, China. She is Research Vice Director of Network and Information Security Engineering Center, Chongqing, China and Research Director of Big Data Security and Intelligence Analytics Technology Innovation Team of CQUPT, Chongqing, China. She is currently Expert of National Natural Science Foundation, China, Reviewer of ACM Computing Surveys, Member of the editorial board of Journal of Chongqing University of Posts and Telecommunications (Natural Science Edition). She is also a member of China Computer Federation (CCF) and Association for Computing Machinery (ACM). In recent five years, she has taken charge of National Natural Science Foundation of China, National Science and Technology Support Projects, Information Security Projects of National Development and Reform Commission, etc. Her research mainly focuses on Big Data Analytics, Machine Learning, Information Security and Privacy, Internet of Things Security, especially in feature selection for Business Intelligence Analytics, Big Data Security, etc. She has two scholarly monographs published, five textbooks published, nine patents authorized and more than thirty papers published in IEEE Trans, IEEE International Conference, etc. She won the first prize (in 2013) and the second prize (in 2016) of Science and Technology Progress Award from Chongqing City Government.

Topic: Big Data & Artificial Intelligence: How to Achieve Accurate Sales

Abstract: "Big Data + Artificial Intelligence" is more and more mature at various industries. The widespread use of this model can facilitate people's lives and bring profits to companies. In this presentation, we will introduce some technologies of "Big Data + Artificial Intelligence" used in the sales industry, we will analyze the data and find the association of the data for achieving accurate sales to customers. There are many other industries to use this technology. we will also discuss other industries, such as the application events in the Medical and Financial and the change in technology to industries.

Keynote 6: 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: SDN/NFV via SBA&CUDU

Abstract: From Green to Soft, the revolutionary path towards future 5G has been charted out. Since its proposal in 2012, SDN/NFV has been viewed as an essential element towards this end. In this talk we will share CMCC's endeavor on the path towards SOFT 5G. In particular, it will be presented how the philosophy of SDN/NFV has been adopted and implemented in our networks, from SBA-based core network to CU-DU-based radio access networks. In fact, C-RAN, which has been proposed by CMCC in 2009, has conceived the NFV idea since its birth. The achievements at the earlier stage will be introduced, including the deployment of centralization, trials on CoMP, some pioneering work on RAN virtualization. Then, the latest progress on RAN cloudification/virtualization will be detailed from various perspectives such as hypervisor, HW platform and MANO systems. Finally other key 5G components such as big data analytics, mobile edge computing etc. will also be touched.

Keynote 7: Jiang-Hua Zhou 周敬华, NFV Architect, Huawei Technology, China

Biography: Jinghua Zhou received his master degree from Wuhan University in 2000 in computer science and then joined Huawei company. In Huawei at first he was responsible for the design and development of the signaling system of voice solution, then from 2005 he was responsible for the architecture, design and development of the mobile Softswitch solution, interworking solution, and VoLTE solution in core network product line. These products and solutions had been proved to be very competitive and achieved great commercial success in the market. He has a lot of experiences in product architecture design and system design, as well as commercial deployment. From 2015 he has focused on the research of NFV in core network domain and now he is NFV architect of the core network product line. .

Topic: Towards CloudNative, Embrace the future of all cloud

Abstract: NFV is approaching maturity , it has been widely practiced and commercialized by global operators. Standards, ecology, deployment and operation and maintenance, and many other challenges are being gradually overcome. NFV's original intention is to reduce the TCO, but more and more operators want to introduce CloudNative technology and philosophy to achieve agile new business development for the future network . However, the implementation of CloudNative in the field of telecommunications is also facing many challenges. NFV practice needs to towards CloudNative, at the same time fully consider service scenarios, market demand, business model and other demands, and gradually build the agile and autonomous network, to enable quick launching of new business in enterprises and other new markets, thereby gradually achieve commercial success.

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Keynote 8: David Lu 陆惠晨 VP, AT&T, USA

Biography: 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.

Topic: AT&T Technology Transformation – Building the Network of the Future

Abstract: Software is changing the world, and networks too. Software Defined Network (SDN) and Network Functional Virtualization (NFV) are the key enablers to transform communication industry for more agility to serve their customers with a better customer experience and a lower cost. This talk will provide a holistic view of how AT&T has transformed its core infrastructure from hardware based to largely software based with smarter, faster, and more flexible innovative approach.

This talk will cover the industry evolution, the latest technology trends and convergence, and focus on AT&T's technology transformation journey in massive scale moving to digitalization and software defined and controlled everything. The talk will also highlight the architecture framework of the open ECOMP (Enhanced Control Orchestration Management Platform) and its pivotal role in making the network of the future more reliable, scalable, and secure.

Keynote 9: Anup Kumar, Professor, University of Louisville, Kentucky, USA

Biography: Anup Kumar (ak@louisville.edu) completed his Ph.D. from North Carolina State University and 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. 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 ands Services" published by CRC press in 2012. He is an Associate Editor of IEEE Transactions on Services Computing. He is also the Associate Editor of Internal Journal of Web Services Research and International Society of Computers and Their Application Journal. He is 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 150 papers. Some of his papers have appeared in ACM Multimedia Systems Journal, several IEEE Transactions, Wireless Communication and Mobile Computing, Journal of Parallel and Distributed Computing, IEEE Journal on Selected Areas in Communications etc. He was the Associate Editor of International Journal of Engineering Design and Automation 1995-1998. He has served on many conference program and organizing committees such as 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. He is a Senior Member of IEEE.

Topic: Access Control Security—Why and How Access Control Policies are Tested and Verified?

Abstract: SDN/NFV, cloud, and many other online systems relies Access control (AC) to protect the secret financial, enterprise, organization, healthcare, defense, and various IT resources/services. In order to protect the classified resources, the security specialist needs to compose a set of AC policies (e.g., in XACML policies) to prevent unintended access. However, the current AC policies are composed and deployed into an AC system without comprehensive security tests and verifications. This results in many AC flaws (e.g., information or service leaks) in the systems and these AC flaws are normally hidden from us until observable damages (e.g., secret data leakage) are caused. This paves the way for cybersecurity hackers or insiders to steal the IT assets by exploring the access control weakness.

Recently NIST has released several specifications in order to help government and enterprises to enhance the nation's critical access control security, such as NIST SP 800-192: Verification and Test Methods for Access Control Policies/Models. As stated by NIST, many of the access control incidents (e.g., data breaches, insiders) are caused by misconfigured access control policies. These specifications describe the AC security requirements to avoid these incidents and recommend to thoroughly and automatically check the syntactic and semantic faults of AC policies before deploying them for operation.

In this talk, we will explore the state-of-art access control policy testing and verification approaches. Examples are (i) Access Control Polity Tool and (ii) Security Policy Tool, which respectively delivers a solution for testing, analyzing, inspecting, and correcting the access control flaws. The talk will demonstrate several typical access control flaws as security issues in the online systems. Research are conducted in order to instill the confidence that classified assets in the SDN/VFV, Big Data, Cloud, IoT, Cybersecurity, and other access control systems are protected at the level your organization intends them to be. Primary information can be found at http://csrc.nist.gov/groups/SNS/acpt/acpt-beta.html and https://securitypolicytool.com/ .

Keynote 10: Yun Li 李云, Nanjing University of Posts and Telecommunications, China

Biography: Yun Li received the Ph.D. degree in Computer Science from Chongqing University, Chongqing, China. He is a professor in the School of Computer Science, Nanjing University of Posts and Telecommunications, China. Prior to that, he was the postdoctoral fellow in Department of Computer Science and Engineering, Shanghai Jiao Tong University, China. He is the Principal Investigator (PI) of several national scientific research projects and provincial projects in recent years. His research mainly focuses on machine learning, data mining and parallel computing, especially in feature selection for big data, ensemble learning, security in AI and their applications in Parkinson severity analysis, network traffic classification, etc. He has published more than 50 refereed research papers in AAAI, ECML, ICASSP, PAKDD, ICPR, ICONIP, IEEE Trans. Neural Networks and Learning Systems, Pattern Recognition, Knowledge and Information Systems, Neurocomputing and IET Signal Processing, etc. He is the member of ACM and IEEE. Prof. Li has served international conferences, such as program chair for ISKE2017, publication chair for ICONIP 2011, TPC member for AAAI 2017 and KDD2017. Prof. Li has also served international journals as guest editor for some special issues, such as IJCIS.

Topic: Adversarial Feature Selection in Secure Machine Learning

Abstract: Advances in machine learning in recent years have enabled a dizzying array of applications such as data analytics, autonomous systems, and security diagnostics. Most existing learning schemes assume that the environment they settle in is benign. However this is not always true in the real adversarial decision-making situations where the future data sets and the training data set are no longer from the same distribution, because of the transformations employed by the adversaries. So it is urgent to consider the security of machine learning system. In this speech, the secure machine learning will be briefly introduced. Moreover, as feature selection has been widely used in machine learning for security applications to improve generalization and computational efficiency, then the framework of adversarial feature selection is also analyzed in detailed, and some typical adversarial feature selection algorithms are presented, especially for privacy-preserving feature selection based on local learning.

Keynote 11: Prof. Yang Yang 杨旸, Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences

Biography: Dr. Yang Yang is currently a professor with Shanghai Institute of Microsystem and Information Technology (SIMIT), Chinese Academy of Sciences, serving as the Director of CAS Key Laboratory of Wireless Sensor Network and Communication, and the Director of Shanghai Research Center for Wireless Communications (WiCO). He is also a Distinguished Adjunct Professor with the School of Information Science and Technology, ShanghaiTech University. Prior to that, he has held faculty positions at The Chinese University of Hong Kong, Brunel University, and University College London (UCL).

Yang is a member of the Chief Technical Committee of the National Science and Technology Major Project "New Generation Mobile Wireless Broadband Communication Networks" (2008-2020), which is funded by the Ministry of Industry and Information Technology (MIIT) of China. In addition, he is on the Chief Technical Committee for the National 863 Hi-Tech R&D Program "5G System R&D Major Projects", which is funded by the Ministry of Science and Technology (MOST) of China. Since January 2017, he has been serving the OpenFog Consortium as the Director for Greater China Region.

Yang's current research interests include wireless sensor networks, Internet of Things, Fog computing, Open 5G, and advanced wireless testbeds. He has published more than 150 papers and filed over 80 technical patents in wireless communications.

Topic: Fog Computing for 5G/IoT Development

Abstract: Fog computing has recently attracted a lot of attentions from communication, computing and control communities. Different from traditional telecom manufacturers, Google, Intel and Facebook actively announced their disruptive approaches for 5G/IoT services based on generic hardware and customized software. In this talk, we will give an introduction of a fog-enabled 5G/IoT R&D platform, which applies SDN and NFV techniques to realize the key functions of a telecom operator according to the 3GPP standard on general CPU/GPU computing platform. It is very adaptive and flexible for supporting a variety of internet of things (IoT) applications in vertical industries. New technical challenges and potential applications of this open platform in delay-sensitive control areas will be fully discussed.

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Keynote 12: 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.

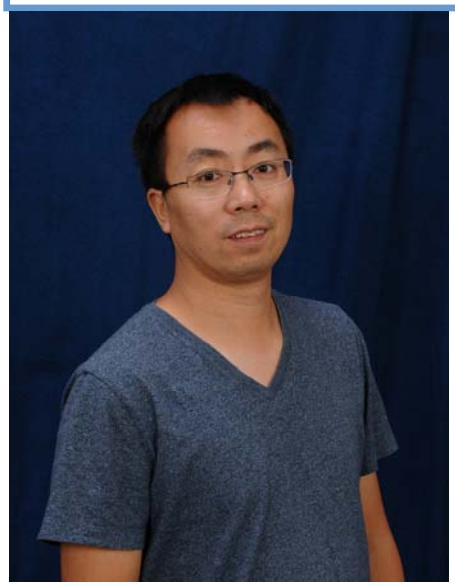
Prior to joining Microsoft, Alok worked for Sybase and Oracle Corporation, leading product development and R&D teams. His played a key role in distributed replication management systems, database extensibility, multi-media management in relational databases, location based services, formalization of 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: Shaping of Digital Planet

Abstract: There isn't a day go by when you do not hear about how digital transformation is gripping all parts of our society and our economy. Traditional business processes are threatened continuously, and every business now need to assess what it means to them. Exploding sensor networks, ubiquitous connectivity and ever-expanding bandwidth is creating more data than we as humans know how to handle and use effectively. That is what is giving rise to new ways of analyzing data and using data and visualizing it. So much so that we are now able to take humans out of the equation to impact a lot of this that impact us. Artificial Intelligence is becoming a key part of our day to day life. Reality is being morphed into Augmented or Virtual reality and sometimes the only good way to visualize our digital world. In this keynote, we are going to look at trends that are shaping how we are going to live and work in the future and bringing us a step close to the idea of Digital Planet.

Keynote 13: Bin Xie, CEO, InfoBeyond Technology, USA



Biography: Bin Xie is the CEO/Funder of the InfoBeyond Technology which is a R&D-oriented company: Delivering state-of-the-art solutions for wireless and satellite communications, big data streaming analytics, data security, and cyber dependability - one of the 50 Fastest Growing Tech Companies, - the Silicon Review. (See Page 6 for a short Bio).

Topic: The Quickest Defending Approach against False Data Injection Attacks in a Smart Grid

Abstract: A smart grid is an electrical grid that consists of a variety of operational and energy measures, including smart meters, smart appliances, renewable energy resources, and energy efficient resources. As a safety critical system, cybersecurity has to be carefully addressed to provide the grid reliability and stability for utility services. In this talk, we will address false data injection attacks and stealth attaches in attempt to provide the quickest detection schemes against these two attacks. Specifically, a CUSUM (Cumulative sum control chart)-based strategy is proposed to defending against the false data injection attack in smart grid networks. Compared to classical approaches, the proposed CUSUM-based defense mechanism gives technically and business benefits:

◊ It is able to tackle the unknown parameters in the probability density function of post-change distribution via the low complexity approach,

◊ The decision-making of the proposed scheme for detecting the attack is based on using multiple online samples/observations rather than using a single observation while maintaining a certain level of decision accuracy, and

◊ A Markov chain based approach is developed to analyze the proposed approach for performance guarantee.

The accuracy of the analytical model and detection with performance guarantee are also discussed. Note: The research is conducted by Dr. Yi Huang who is a research scientist at InfoBeyond.

Keynote 14: Prof. Feifei Gao, Tsinghua University, Beijing, China

Biography: Feifei Gao received the B.Eng. degree from Xi'an Jiaotong University, Xi'an, China in 2002, the M.Sc. degree from McMaster University, Hamilton, ON, Canada in 2004, and the Ph.D. degree from National University of Singapore, Singapore in 2007. He was a Research Fellow with the Institute for Infocomm Research (I2R), A*STAR, Singapore in 2008 and an Assistant Professor with the School of Engineering and Science, Jacobs University, Bremen, Germany from 2009 to 2010. In 2011, he joined the Department of Automation, Tsinghua University, Beijing, China, where he is currently an Associate Professor.

Prof. Gao's research areas include communication theory, signal processing for communications, array signal processing, and convex optimizations, with particular interests in MIMO techniques, multi-carrier communications, cooperative communication, and cognitive radio networks. He has authored/ coauthored more than 100 refereed IEEE journal papers and more than 100 IEEE conference proceeding papers, which have been cited more than 4000 times from Google Scholar.

Prof. Gao has served as an Editor of IEEE Transactions on Wireless Communications, IEEE Communications Letters, IEEE Signal Processing Letters, IEEE Wireless Communications Letters, International Journal on Antennas and Propagations, and China Communications. He has also served as the symposium co-chair for 2015 IEEE Conference on Communications (ICC), 2014 IEEE Global Communications Conference (GLOBECOM), 2014 IEEE Vehicular Technology Conference Fall (VTC), as well as Technical Committee Members for many other IEEE conferences.

Topic: Backscatter Communications: A Green Paradigm for Future Internet of Things

Abstract: Internet of Things (IoT) has attracted extensive interest from both academia and industries, and is recognized as an ultimate infrastructure to connect everything at anytime and anywhere. The implementation of IoT generally faces the challenges from energy constraint and implementation cost. In this talk, we will introduce a new green communication paradigm, the ambient backscatter (AmBC), that could utilize the environmental wireless signals for both powering a tiny-cost device and backscattering the information symbols. Specifically, we will present the basic principles of AmBC, analyze its features and advantages, suggest its open problems, and predict its potential applications for the future IoT.

International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery

Registration 注册: 16:00— 18:00 —October 11 or October 12 Morning and Afternoon (Location: see on-site notice)

Program Schedule (会议安排)

Welcome Party（CyberC）: 18:00— 20:00, October 11, 2017 (7楼自助餐厅—7th Floor Buffet)

CyberC & Big Data Summit Date and Location (时间和地点)

8:00-13:00, Oct. 12, 2017 – Diamond Conf. Room (8楼钻石厅C)

Main Conference Room (8th Floor Conf. Room C —8楼钻石厅C)		
Time	Speaker	Topic
8:00 – 8:20	Anup Kumar, Xiaolong Xu, and Bin Xie	Conference Opening Ceremony and Logistics
8:20 – 9: 00	Dr. Shui Yu 余水, Deakin University, Australia	Networking for Big Data: Challenges and Opportunities
9:00 – 9:40	Anirban Bhattacharya, Tech Mahindra, India	Data and Analytics – Transforming into a Cognitive and Convergent space
9:40 – 10:00		Break
10:00 – 10:40	Prof. Dongfeng Yuan 袁东风, Shandong University, China	Wireless Big Data Analysis: A Machine Learning Perspective
10:40 – 11:20	Dr. Chang Tan 谭昶, Vice Director. Research Institute of iFlyTech, China	Big Data Practice at the iFLYTEK
11:20 – 12:00	Prof. Guangxia Xu 徐光侠, Chongqing Univ. of Posts and Telecommunications	Big Data & Artificial Intelligence: How to Achieve Accurate Sales
12:00 – 13:00	Lunch Buffet 自助餐 (7楼锦厨西餐厅 —7th floor)	

International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery

CyberC & Big Data Summit Date and Location (时间和地点)

13: 00—20:00, October 12, 2017, (8楼钻石厅C)

Main Conference Room (8th Floor Conf. Room C —8楼钻石厅C)		
Time	Speaker	Topic
13:00 – 13:40	Dr. Chih-Lin I 易芝玲, Chief Scientist, Wireless Technologies, China Mobile Research	SDN/NFV via SBA&CUDU
13:40 – 14:20	Jiang-Hua Zhou 周敬华, Huawei	Towards CloudNative, Embrace the future of all cloud
14:20 – 15:00	David Lu 陆惠晨 VP, AT&T, USA	AT&T Technology Transformation – Building the Network of the Future
15:00 – 15:20	Break	
15:20 – 16:00	Chi-Ming Chen, AT&T; IEEE SDN Initiative	IEEE SDN Initiative's Accomplishments and Future Plan
16:00 – 16:40	Anup Kumar, Professor, University of Louisville, Kentucky, USA	Access Control Security – Why and How Access Control Policies are Tested and Verified?
16:40 – 17:20	David Lu 陆惠晨, Vice President, Business Solutions Development, AT&T, US; Chung-Min Chen, 陳仲民, VP of Data Science, iconectiv, USA	Big Data & SDN/NFV Summit Summary/Q&A
17:20 – 18:00	Networking and Dialog with Speakers	
18:30 – 20:00	Dinner Buffet 自助餐 （7楼锦厨西餐厅 —7th floor)	

International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery

Program Schedule (会议程序)

CyberC & Big Data Summit Date and Location (时间和地点): October 13, 2017

Main Conference Room (8楼VIP1厅—8th floor VIP 1 Room)					
8:00 – 8:20	Bin Xie and Xiaolong Xu		Conference Logistic Announcement		
8:20 – 9:00	Prof. Yun Li 李云, Nanjing Univ. of Posts and Telecommunications, China		Adversarial Feature Selection in Secure Machine Learning		
9:00 – 9:40	Prof. Yang Yang 杨旸, Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences		Fog Computing for 5G/IoT Development		
9:40 – 10:00	Break				
10:00 – 10:40	Bin Xie		The Quickest Defending Approach against False Data Injection Attacks in a Smart Grid		
10:40– 11:20	Alok Srivastava, Lead Architect, Microsoft Corporation, USA		Shaping of Digital Planet		
12:00 – 13:00	Lunch Buffet 自助餐 （7楼锦厨西餐厅 —7th floor)				
	Conference Room 1 (8楼VIP1厅)	Conference Room 2 (8楼水晶A ）	Conference Room 3(8楼水晶B)	Conference Room 4 (8楼水晶C)	Conference Room 5(8楼玛瑙厅)
13:00 — 15:10	Session 1: Security, Privacy, and Protection	Session 3: Images, Video, Positioning, and Systems	Session 5: Cloud Computing and System Implementation	Session 7: Internet of Things and RFID Sensors	Session 9: Wireless Communications
15:10 – 15:15	Break				
15:15 – 17:30	Session 2: Networking, Protocol, and Performance	Session 4: Big Data and Data Analytics	Session 6: Machine Learning and Analytics	Session 8: Network and Smart Sensor Networks	Session 10: SDN and Resource
17:30 –	Banquet (Best Paper Announcement) (8楼 钻石C厅—8th floor, Diamond room ）				

October 14, 2017— 5 G Summit (CyberC and Big Data Registers are free to attend).

南京上秦淮假日酒店 (Holiday Inn Nanjing Qinhuai South), 中国江苏省南京市江宁区秣周东路21号

No.21, Mozhou East Road, Jiangning District Nanjing, Jiangsu Province, P.R. China

International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery

Session 1: Security, Privacy, and Protection

Session Chair: Anup Kumar, Professor, University of Louisville, USA

(Conference Room 1 (8楼VIP1厅) 13:00 — 15:10, October 13)

Authors (包括演讲人）	Titles （报告主题）
Xin Hu, Gang Wang, Hongtao Qin, Runnian Ma	SIRS model and stability based on open cyber ecosystem
Yingying Huangfu, Liang Zhou, Chenming Yang	Routing the Cyber-Attack Path with the Bayesian Network Deducing Approach
LI Li-xin, DING Yong-shan, WANG Jia-yan	Differential Privacy Data Protection Method Based on Clustering
Han Jin, Zhao Rongcai, Shan Zhen, Liu Fudong, Zhao Bingling, Meng Xi	Analyzing and Recognizing Android Malware via Semantic-based Malware Gene
Hao Zeng, Baosheng Wang, Wenping Deng, Xianming Gao	CENTRA: CENtrally Trusted Routing vAlidation for IGP
LiuXiangyu, LiQiuyang, Sonali Chandel	Social Engineering and Insider Threats
Yajuan Shi,Chunhui Piao,Lijuan Zheng	Differential-Privacy-Based Correlation Analysis in Railway Freight Service Applications
Rishabh Dudheria	Evaluating Features and Effectiveness of Secure QR Code Scanners
Wenyan Liu, Fucai Chen, Hongchao Hu, Guozhen Cheng, Shumin Huo, Hao liang	A Novel Framework for Zero-Day Attacks Detection and Response with Cyberspace Mimic Defense Architecture
Jingwen Wang, Jie Yang, Jingan Liao	Resist the Database Intrusion Caused by Functional Dependency
Vahid Amin Ghafari, Honggang Hu	A New Chosen IV Statistical Attack on Grain-128a cipher

Session 2: Networking, Protocol, and Performance

Session Chair: TBD

(Conference Room 1 (8楼VIP1厅) 15:15 – 17:30, October 13)

Authors (包括演讲人）	Titles （报告主题）
Yuanyi Zhao	Performance analysis of Turbo code and trellis BICM-ID on PNC over impulsive channel
Xiao Xiaojun&, Luo Wanming	An IPv6-based load balancing strategy for ecological monitoring network
Xiao Xiaojun&, Luo Wanming	6LoWPAN Hierarchical Cluster Routing Protocol
Gao Xiang, Li Guanghui	Design and implementation of the prototype of high-available distributed communication system
Lanhua Xiang , Hongbin Chen	Energy-Efficient and Fair Power Allocation Approach for NOMA in Ultra-Dense Heterogeneous Networks
Wuxinyu	P&D Graph Cube: Model and Parallel Materialization for Multidimensional Heterogeneous Network
Hao Zeng, Baosheng Wang, Wenping Deng, Weiqi Zhang	Measurement and Evaluation for Docker Container Networking
Hao Zeng, Xianming Gao, Baosheng Wang	POPBrick: A High-elasticity, Reconfigurable Network Infrastructure to Support POP Applications
Zhang Wei-wei1, He Jia-feng Gao Guo-wang， Ren Li-li， ShenXuan-jing	Spatial-Temporal Multi-Channel Allocation Based on the Greedy Algorithm for Wireless Mesh Networks

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Session 3: Images, Video, Positioning, and Systems

Session Chair: Yingzhou Zhang, Head of the Computer Department , Professor, Nanjing University of Posts and Telecommunications

Conference Room 2 (8楼水晶A) 13:00 — 15:10, October 13)

Authors (包括演讲人)	Titles （报告主题 ）
Masoud Attarifar, Mohammadamin Baniasadi	JPEG IMAGE SECURITY BY BLOCK SIZE ESTIMATION AND QUALITY FACTOR CLASSIFICATION
Lian Zhao, Yingzhou Zhang, Xing Wang,Xinghao Chen	Image Hiding Algorithm Based on Secure Steganography Mechanism
Zhenghua Shu , Guodong Liu, Zhihua Xie	Real Time Target Tracking Scale Adaptive Based on LBP Operator and Nonlinear Meanshift
Xiaolong Xu, Licheng Lin	Geomagnetic Fingerprint Maps for Indoor Positioning
Md Ahsanul Hoque	Implementing a Real Time Production Monitoring System: a Web design incorporating the Google
Xiaokun Wu, Yongfeng Huang	SigRA: A New Similarity Computation Method in Recommendation System
Xing Wang, Yingzhou Zhang, Lian Zhao, Xinghao Chen	Dead Code Detection Method Based on Program Slicing

Session 4: Big Data and Data Analytics

Session Chair - Jia Xu, Professor, School of Computer Science, Nanjing University of Posts and Telecommunications

(Conference Room 2 (8楼水晶A) 15:15 – 17:30, October 13)

Authors (包括演讲人)	Titles（报告主题 ）
Yiwei Xu, Yonggen Gu, Duc Minh Quan Do, Hongtianchen Xie, Lunke Qing	A Faster Without Scarifying Accuracy Online Decomposition Approach For Higher-Order Tensors
Yangjun Chen, Yujia Wu	Searching BWT against Pattern Matching Machine to Find Multiple String Matches
Ha Jinbing, Yu Yunping	Fault Data Diagnosis of Energy Consumption Equipment for Urban Rail Transit Based on ART2 Model
Taihao Li, Jianshe Zhou, Naren Tuya, Cuifen Du, Zhiqiang Chen, Shupeng Liu	Recognize facial expression using active appearance model and neural network
Feng Liu, Jun Zhang, Er-zhou Zhu	Test-suite Reduction Based on K-medoids Clustering Algorithm
Peng Sun, Lihua Wang, Qianchen Xia	The Keyword Extraction of Chinese Medical Web Page Based on WF-TF-IDF Algorithm
Po Yang,Xuebin Ma	Selection Strategy of Nodes with the Greatest Influence on Community Structure
Jinhong Liu, Juan Yang	Multi-label Classification using Random Walk with Restart
Jiake Ni,Weitao Weng,Jiayu Chen,Kai Lei	Internet Traffic Analysis Using Community Detection and Apache Spark

International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery

Session 5: Cloud Computing and System Implementation

Session Chair – Bin Xie, InfoBeyond Technology, USA

(Conference Room 3 (8楼水晶B) 13:00 — 15:10, October 13)

Authors (包括演讲人)	Titles （ 报告主题 ）
Du Qingfeng,Tian Yue,Xie Tiandi,Yin Kanglin,Qiu Juan	A method of building fault repository for cloud infrastructure
Sun Lei, Su Hang, Zhu Zhiqiang, Li Zuohui	A Novel Attribute based Keyword Search Scheme for Mobile Cloud Storage
Zhang Jianhong, Xiao Hao	Public Auditing Scheme of Dynamic Data Sharing Suiting for Cloud-based EHR System
Naseer Amara, Huang Zhiqui, Awais Ali	Cloud Computing Security Threats and Attacks with their Mitigation Techniques
Zhichao Song, Xiangyu Bai, Haodong Bian	Implementation of Subject Recommendation and Practice System For Mobile Terminal Users
Du Qingfeng, Li Huan, YIN Kanglin, QIU Juan	VM Reliability Modeling and Analysis for IaaS Cloud
Liang Cao, Yufeng Wang, Qun Jin, Jianhua Ma	ActiRecognizer: Design and implementation of a real-time human activity recognition system

Session 6: Machine Learning and Analytics

Session Chair – TBD

(Conference Room 3 (8楼水晶B) 15:15 – 17:30, October 13)

Authors (包括演讲人)	Titles （ 报告主题 ）
Xi Meng, Zhen Shan, Fudong Liu, Bingling Zhao, Jin Han, Hongyan Wang, Jing Wang	MCSMGS: Malware Classification Model Based on Deep Learning
Meng Yingjie, Liu Huiran, Shang tong, Teng Xiaoyu	A Zero-Watermarking Scheme for Prose Writings
Xiaolong Xu, Wen Chen	Implementation and performance optimization of dynamic random forest
Lihua Wang, Zijun Zhou	Congestion Prediction for Urban Areas by Spatiotemporal Data Mining
Xia Liu, Xia Huang, Lei Chen, Zhao Qiu, Mingrui Chen	Improving the Forecasting Accuracy of Civil Aviation Passengers Based on Machine Learning Models
Jun Gu, Bin Gao, Yuanpeng Chen, Long Jiang, Zhao Gao, Xiaole Ma, Yong Ma, W.L. Woo	Wearable Social Sensing and its application in anxiety Assessment
Juan Qiu, Qingfeng Du, Wei Wang, Kanglin Yin, ChangSheng Lin, ChongShu Qian	Topic Crawler for OpenStack QA Knowledge Base
Dongchen, Miao	A Recommendation System Based on Text Mining
Sunyan, Gu	A Chinese text corrector based on seq2seq model
Xiu Yin, Yingzhou Zhang, Xinghao Chen	A Binary-Classification Method Based on Dictionary Learning and ADMM For Network Intrusion Detection

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Session 7: Internet of Things and RFID Sensors
Session Chair– Ning Cao, Qingdao Binhai University, China

(Conference Room 4 (8楼水晶C) 13:00 — 15:10, October 13)

Authors (包括演讲人)	Titles （ 报告主题 ）
Wenjing Sun, Song Jin, Ruide Li, Yangyang Li, Qianru Yang, Ning Cao	Research on Correlation Models between QoS and Application Layer QoE in IoT-NDN Environment
Sanju Lokuhitige, Suzana brown	Forecasting Maturity of IoT Technologies in Top 5 Countries Using Bibliometrics and Patent Analysis
Junshe Wang, Han Wang, Hongbin Zhang, Ning Cao	Trust and Attribute-based Dynamic Access Control Model For Internet of Things
Zhiqing Zhang, Hideya Ochiai, Hiroshi Esaki	An IoT Application-Layer Protocol Modem: A Case Study on Interfacing IEEE 1888 with AT Commands
Huiyang Sun, Hongjun Li, Yuanyuan Zhang, Wanmin Zhang	A Study on Smart Monitoring and Management of Track Running Self-Testing System Based on Internet of Things
Jie Wan, Xiang Gu, Liang Chen, Jin Wang	Internet of Things for Ambient Assisted Living: Challenges and Future Opportunities
Wenjin Yu, Yixiang Jiang	Mobile RFID Mutual Authentication Protocol Based on Hash Function
Hao Zhang , Xinpeng Li , Huan Song, Yongzheng Mu, Qingxuan Jia, Xin Gao, Bin Chen	Power Dispatching Asset Management System Based on RFID Technology

Session 8: Network and Smart Sensor Networks

Session Chairs– Weifeng Lu, Associate Professor, Ph.D, School of Computer Science, Nanjing University of Posts and Telecommunications

(Conference Room 4 (8楼水晶C) 15:15 – 17:30, October 13)

Authors (包括演讲人)	Titles （ 报告主题 ）
Alexander Basan, Elena Basan, Oleg Makarevich	Trust evaluation method for active attack counteraction in wireless sensor networks
Haitao Zhao, Kaiqiang Gao,Mengkang Zhang,Dapeng Li,Hongbo Zhu	A Demand-Aware Transmission Optimization Control Scheme Based On Multichannel Coordination
Junyan Ma, Jin Wang, Te Zhang	A Survey of Recent Achievements for Wireless Sensor Networks Testbeds
Na Dang, Xiangyu Bai, Haodong Bian	Content Delivery Routing Strategy Based on Energy Constraint in MDTN-CCN Integrated Network
Chunqiang Liu,Haijie Pang,Ning Cao	Research on Time Synchronization Technology of Wireless Sensor Network
Yufang Huang, Yi Lin, Rongzhen Miao	An Auxiliary Blind Guide System based on Multi-sensor Data Fusion
Ning Cao, Yuanyuan Zhang, Yan Li, Bin Xue, Hua Yu, Yingying Wang, Yuyan Shen, Na Li	Analysis of the Approach to Predict Different Routing Protocols in WSNs
Deng Yi-wei, Zhong Cheng, Yu Jun, Shao Su-Jie, Qiu Xue-song	An energy-saving clustering strategy of hybrid network of sensors and mobile CR nodes
Qi Xie, Qiang Wang, Ning Cao, Shuqing Gao, Guang Liang, Tong Zhang, Yanbing Chen, Yi Zhai, Na Li	A Survey of Wireless Sensor Technique Applications for Medical Care
Mario Rivero, Gerardo Rubino	Transmission Probability Strategies for Cluster-based Event-Driven Wireless Sensor Networks
Anwar Ahmed Khan, Mohammad Shoaib Jamal, Shama Siddiqui	Dynamic Duty-Cycle Control for Wireless Sensor Networks using Artificial Neural Network (ANN)
Shama Siddiqui, Anwar Ahmed Khan, Dr. Sayeed Ghani	DPR-MAC: Dynamic Polling for Rare Events in Wireless Sensor Networks

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Session 9: Wireless Communications and Mobile Computing

Session Chair– Prof. Lanhua Xiang, Guilin University of Electronic Technology, China

(Conference Room 5 (8楼玛瑙厅）13:00 — 15:10, October 13)

Authors (包括演讲人）	Titles （报告主题）
Zhen Wang, Hai Qin, Yu Gong, Bo Liu	Implementation and Verification of A High-Throughput Reconfigurable MIMO Detector
ZhanZhen Wei, Feng Wang, Zhaobin Li	Loop-free Forwarding in Hierarchical Location-based Routing
Shun-Ping Chen, Jens Gebert	Investigations of 5G Multiple Radio Access Technology Performance and Resource Selection Behavior
Tao Ma	A Bit Sampled Wake-Up Receiver with Logarithmic Detector Architecture
Weifeng Lu,Weijun Lin, Lijun Yang, Siguang Chen	A Heuristic D2D Communication Mode Selection Algorithm
Zukui Wang, Liusheng Huang, Wei Yang, Zhiqiang He	A Classifier Method for Detection of Covert Channels over LTE
Guihua Kang, Kaiyue Xu, Hongbo Kang, Kun-bei Pan	The Limited Feedback Precoding Based on the Triplex Codebooks
La'ning Ma, Zhonghua Liang, Danli Liu	Performance of Polarized Channel Coding In TRPC-UWB Communication Systems
Tingting Jia, Caihong Li, Anping He	Modeling and Verification of Circuit with Stable-event
Zhang Wei-wei1, He Jia-feng Gao Guo-wang，Ren Li-li，ShenXuan-jing	Multi-channel Allocation Algorithm Based on AODV Protocol in Wireless Mesh Networks

Session 10: SDN/NFV and Cognitive Networks

Session Chair- TBD

(Conference Room 5 (8楼玛瑙厅) 15:15 – 17:30, October 13)

Authors (包括演讲人）	Titles（报告主题）
Kun Li, Qinghai OU, Hong Chen, Baoping Zou	Controller Cluster-based Interconnecting for Multi-domain SDN Networks
JianhuiZhang, Tao Hu, Wei Zhao, Dan Qiao	DDS: Distributed Decision Strategy Based on Switch Migration Towards SDN Control Plane
Gang Zhang, Xiaofeng Qiu, Wei Chang	Scheduling of Security Resources in Software Defined Security Architecture
Xiaolong Xu, Liuyun Hu	A software defined security scheme based on SDN environment
Xuyuhua, sunzhe, sunzhixin	SDN-Based Architecture for Big Data Network
Xiaoyong Lin, Pengwei Yin, Yun Xia, Yang Yu, Tingting Qiu, Xiaoming Wang, Lixiang Li	MPLB: a Load Balance Scheme of Joint Resource Scheduling in Heterogeneous Wireless Network