# **Conference Abstract**

# 2018 18th IEEE International Conference on Communication Technology (IEEE ICCT 2018)

Oct. 8-11, 2018

Chongqing, China

# Conference Venue / 会议地址



RADISSON BLU HOTEL CHONGQING SHA PING BA
No. 8 Hui Quan Road, Sha Ping Ba District, Chongqing 400030, China
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Welcome Remarks

Based on the great success of previous 17 ICCTs, 2018 18th IEEE International Conference on

Communication Technology (ICCT 2018) is co-sponsored by College of Communication

Engineering, Chongqing University, China and IEEE and will be held in Chongqing, China during

October 8-11, 2018.

Aiming to provide international academic exchange and international cooperation, ICCT 2018

promotes information exchange on communication technology, and brings academic scientists,

engineers, and researchers together to exchange and share their experiences and latest

research results in both theory and application of communication technologies.

All papers in the conference proceedings have undergone intensive and strict review process

performed by international technical committee, and only accepted papers are included. These

papers are the representative works of the new research results of all over the world. This

conference is attended by over 250 participants from over 10 countries and regions.

We would like to extend our great appreciation to all contributors for the devotion of their

precious time, advice and hard work for the success of this conference. It is with sincere

gratitude that we thank the organizing committee, keynote speakers, session chairs, authors,

participants, and ICCT Staff for making the 18th-ICCT a valuable and unforgettable experience.

Wish you all enjoy your stay in Chongqing.

Prof. Xiaoheng Tan,

Chongqing University, China

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#### **Useful Information**

#### **Room Reservation in Conference Hotel**

Romm RATE: 450 RMB per night (Single Room) / 500 RMB per night (Double Room)

Reservation Telephone: +86-23-88669999, then turn to extension number 3500

Contact Email: cqspb.rez@radisson.com

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#### Average Temperature in October in Chongqing

Average daily minimum temperature

Average daily maximum temperature

**16**℃

22°C

#### **Bank and Foreign Exchange**

The Currency is Chinese Yuan here. You can exchange foreign currency 24hours at the airport.

#### **Emergency Numbers**

Medical Emergency: 120 Police: 110 Fire: 119

# **Instructions for Workshop**

**Note:** The following time arrangement is for reference only. In case any absence or some presentations are less than 15 minutes, please come before your session starts.

\*An excellent oral presentation will be selected from each session which will be announced and awarded an excellent oral presentation certificate at dinner.

#### **Devices Provided by the Conference Organizer**

- ♦ Laptops (with MS-Office & Adobe Reader)
- ♦ Projectors & Screen
- ♦ Laser Sticks

#### **Materials Provided by the Presenters**

- ♦ Oral Presentation: PowerPoint or PDF files. Please copy your slide file to the desktop before session starts
- ♦ Poster Presentation: A1 Size, Portrait Direction. During your poster session, the author should stay by your poster paper to explain and discuss your paper within visiting.

#### **Duration of Each Presentation**

- ♦ Regular Oral Session: about 15 Minutes of Presentation including Q&A.
- ♦ Poster Session: about 30 Minutes of Presentation including Q&A.
- ♦ Keynote Speech: 40 Minutes of Presentation including Q&A.

#### **About Dress Code**

- ♦ All participants are required to dress formally. Casual wear is unacceptable.
- ♦ National formal dress is acceptable.

#### **Conference Speakers**



#### **Speech Title: Digital Healthcare Security**

Prof. Abdennour El Rhalibi (IEEE Fellow) Liverpool John Moores University, UK 10:00-10:40, Oct. 9, Gele Ballroom

**Abstract:** Healthcare is an essential part of the national critical infrastructure network. Of the four critical infrastructures (safety, mission, business and security), hospital infrastructures are a mission-critical infrastructure. Damage to network communications and the loss of patient data would have a detrimental impact on the health provision. Additionally, many lifesaving medical devices, used by health care infrastructures, are vulnerable to attacks from the digital domain. Pacemakers for example, are calibrated wireless and have none or very little security in place. Medical devices are often limited in their computational and communication capabilities. Such devices are not built to accommodate computationally exhaustive operations. Similarly, most medical devices have low on-device memory, leading to the challenge that they are not able to execute complicated security protocols. Wireless links and open connections, present on medical devices, can also be compromised by attackers. Adversaries can manipulate the data transmitted and received by the device, alter dosages, and even turn devices off, putting patients' lives at risk. However, a notable concern is that a successful attack on such device, presents an opportunity for an attacker to gain backdoor access into a healthcare infrastructure. This essentially allows attackers to bypass the network authentication infrastructure required to access systems containing sensitive personal data. In this talk Prof. Abdennour El Rhalibi will present challenges and solutions in digital healthcare security techniques relying on machine learning, visualisation techniques and IDS. The presentation will also include an overview of the research carried out at the Protect Centre.

Bio: Abdennour El Rhalibi is Professor of Entertainment Computing and Head of Strategic Projects at Liverpool John Moores University. He is Head of Computer Games Research Lab at the Protect Research Centre. He has over 24 years' experience doing research and teaching in Computer Sciences. Abdennour has worked as lead researcher in three EU projects in France and in UK. His current research involves Game Technologies and Applied Artificial intelligence. Abdennour has been leading for six years several projects in Entertainment Computing funded by the BBC and UK based games companies, involving cross-platform development tools for games, 3D Web-Based Game Middleware Development, State Synchronisation in Multiplayer Online Games, Peer-to-Peer MMOG and 3D Character Animation. Abdennour has published over 180 publications in these areas. Abdennour serves in many journal editorial boards including ACM Computer in Entertainment and the International Journal of Computer Games Technologies. He has served as chair and IPC member in over 100 conferences on Computer Entertainment, AI and VR. Abdennour is member of many International Research Committees in AI and Entertainment Computing, including IEEE MMTC IG: 3D Rendering, Processing and Communications (3DRPCIG), IEEE Task Force on Computational Intelligence in Video Games and IFIP WG 14.4 Games and Entertainment Computing.



# Speech Title: Incorporating Intelligence at Wireless Network Edge

Prof. Gang Feng
University of Electronic Science and Technology of China, China
10:40-11:20, Oct. 9, Gele Ballroom

**Abstract:** The ever-increasingly complicated configuration issues and blossoming new service requirements will pose great challenges to wireless networks. Recent breakthroughs in artificial intelligence (AI), especially machine learning (ML), and the availability of powerful computing platforms provide us with technologies to address these challenges by performing tasks once seemed impossible. Therefore, we expect that AI can provide many new and unprecedented opportunities in addressing challenging issues in radio access network (RAN), such as access control and handoff policy design, resource allocation and scheduling, interference coordination, coordination among base stations, etc. In this talk, I will first discuss the opportunities and challenges to exploit AI at the edge of wireless networks. Next, I will provide three case studies of exploiting AI to solve RAN issues: online learning based Discontinuous Reception (DRX) mechanism for machine-type communications, intelligent resource scheduling for 5G RAN slicing, and smart handoff policy for HetNets. These case studies with numerical results demonstrate the effectiveness and advantages of AI based technologies for improving network performance with reasonable signaling overhead for future wireless networks.

Bio: Dr. Gang Feng (M'01, SM'06) received his BEng. and MEng degrees in Electronic Engineering from the University of Electronic Science and Technology of China (UESTC), in 1986 and 1989, respectively, and the Ph.D. degrees in Information Engineering from The Chinese University of Hong Kong in 1998. He joined the School of Electric and Electronic Engineering, Nanyang Technological University in December 2000 as an assistant professor and became an associate professor in October 2005. At present he is a professor with the National Laboratory of Science and Technologies on Communications, UESTC. Dr. Feng has extensive research experience and has published widely in computer networking and wireless networking research, with contributions to SDN/NFV based wireless network architecture, AI-enabled wireless access control and handoff policy, content caching and distribution in wireless networks, etc. Many of his papers are listed as ESI highly cited papers and the total number of cites reaches nearly 3000 (google scholar). His research interests include next generation mobile networks, mobile cloud computing, big data analytics for wireless networking, etc. Dr. Feng is a senior member of IEEE.



#### **Speech Title: Mobile Edge Computing for Internet of Vehicles**

Prof. Yan Zhang
University of Oslo, Norway
11:20-12:00, Oct. 9, Gele Ballroom

**Abstract:** The concept of "connected vehicles" is driving the evolution of traditional transport systems into the era of Internet of Vehicles (IoV). In this emerging paradigm, we may envision that high computation and low-latency content requirement. This talk mainly includes three parts. In the first part, we introduce the key concepts and architectures in the IoV scenario. Then, we focus on several unprecedented challenges and potential solutions when we explore mobile edge computing for IoV. These challenges are related to new vehicle edge computing scenarios, optimal resource management in computation offloading and edge caching.

**Bio:** Prof. Yan Zhang is Full Professor at the Department of Informatics, University of Oslo, Norway. He received a PhD degree in School of Electrical & Electronics Engineering, Nanyang Technological University, Singapore.

He serves as an Associate Technical Editor of IEEE Communications Magazine, an Editor of IEEE Transactions on Green Communications and Networking, an Editor of IEEE Communications Surveys & Tutorials, an Editor of IEEE Internet of Things Journal, an Editor of Vehicular Technology Magazine, and an Associate Editor of IEEE Access. He serves as chair positions in a number of conferences, including IEEE GLOBECOM 2017, IEEE PIMRC 2016, and IEEE SmartGridComm 2015. He is IEEE VTS (Vehicular Technology Society) Distinguished Lecturer. He serves as IEEE TCGCC Vice Chair. His current research interests include: next-generation wireless networks leading to 5G, reliable and secure cyber-physical systems (e.g., smart grid, transport, and healthcare).



#### **Speech Title: Optical Fiber Sensors and Applications**

Prof. Shum Ping (OSA Fellow & SPIE Fellow) Nanyang Technological University, Singapore 9:00-9:40, Oct. 10, Xiangshan Ballroom

**Abstract:** Optical fiber-based devices have been widely deployed in recent years. There are many advantages of using fiber as a sensor. These include electrically-passive operation, light weight, immunity to radio frequency interference and electromagnetic interference, high sensitivity, compact size, corrosion resistance, easily multiplexing and potentially low cost. Several novel fiber-based sensors and technologies developed are presented here, including fiber Bragg grating (FBG) based sensors, photonic crystal fiber (PCF) based sensors, specialty fiber-based sensors and distributed fiber sensing systems. FBGs as instinctive sensors, are ingeniously designed as two-dimensional (2D) tilt sensors, displacement sensors, accelerometers and corrosion sensors here; PCF based evanescent field absorption sensor, PCF induced Mach-Zehnder interferometer and Fabry-Perot refractometer for temperature and refractive index sensing are presented; based on localized surface Plasmon resonant (LSPR) effect, nano-sized fiber tip with gold nanoparticles are demonstrated for live cell index

bio-sensing applications.

**Bio:** Prof Shum received his PhD degree in Electronic and Electrical Engineering from the University of Birmingham, UK, in 1995. In 1999, he joined the School of Electrical and Electronic Engineering, NTU. Since 2014, he has been appointed as the Director of Centre for Optical Fibre Technology and was the chair, committee member and international advisor of many international conferences. He was also the founding member of IEEE Photonics Society Singapore Chapter (formerly IEEE LEOS). He is currently the chairman of OSA Singapore Chapter. Prof Shum has published more than 500 journal and conference papers with his research interests being in the areas of speciality fibres and fibre-based devices. His H-index is 38. In recent few years, his publications have been cited about 500-800 times per year. He is SPIE Fellow and OSA Fellow.



# Speech Title: Cognitive Industrial Internet of Things and 5G MTC's Role

Dr. Sumei Sun (IEEE Fellow)

Head, Communications and Networks Cluster at Institute for Infocomm Research, Lead PI, Industrial Internet of Things Research Program, A\*STAR, Singapore

10:10-10:50, Oct. 10, Xiangshan Ballroom

**Abstract:** Industrial internet of things (IIoT), by providing connectivity to machines, robots, and sensors, etc, enables data intelligence-assisted information technology (IT) and operation technology (OT) convergence. In IIoT, multi-disciplinary research on communications, storage, computing and data analysis, control and management, and security, as well as cross-disciplinary system-level design optimization is needed, with built-in autonomous learning and adaptation capabilities.

In this talk, we will start with a brief introduction to IIoT, and then share the IIoT research and design challenges. A design approach will then be proposed to overcome these challenges, under the theme of cognitive IIoT in which the device and the network will build up learning capabilities for context-aware resource, interference, and mobility management, automated fault detection and recovery, and robust connectivity; multi-modal security detection capability is incorporated into the device and network for real-time anomaly and security detection and management. The interactive and cooperative edge-cloud analytics will also be introduced to enable low-latency real-time actionable insight and robust feature engineering. Finally, the 5G's role, especially the 5G machine-type communications (MTC), from both the massive MTC aspect, and the ultra-reliable low latency communications (uRLLC) aspect, will be discussed.

**Bio:** Sumei SUN has been with the Institute for Infocomm Research (I2R) since 1995. She is now Head of the Communications and Networks Cluster, and the lead principal investigator of the Industrial IoT Research Program at the Agency for Science, Technology, and Research (A\*STAR) in Singapore, working toward developing competitive solutions to bridge gaps from research to industry in the digital transformation journey.

Dr Sun has authored and co-authored more than three hundred technical papers in prestigious IEEE journals and conferences. She's inventor and co-inventor of thirty granted patents and over thirty patent applications, many of which have been licensed to industry. She is a Fellow

of the IEEE, a Distinguished Speaker in the IEEE Vehicular Technology Society, and Vice Director of IEEE ComSoc Asia Pacific Board (2016-2019). She's also the Wireless Systems Work Group Chair of Singapore Infocomm Media Development Authority's Telecommunications Standards Advisory Committee (TSAC) during 2015 – 2018, and Services and Digital Economy Technology Roadmap Workgroup Chair for Future Communications and Internet of Things.



# Speech Title: Virtual Full-Duplex Quantize-Map-Forward Relaying for Cooperative Communications

Prof. Jianqing LI

Macau University of Science and Technology, China
10:50-11:30, Oct. 10, Xiangshan Ballroom

**Abstract:** The exponential growth in demand for higher spectral efficiency in cooperative communications has motivated the use of virtual full-duplex relaying. The problem discussed in this talk is the development of quantize-map-forward (QMF) to achieve the gains provided by the virtual full-duplex relaying, in terms of both a lower outage probability and a higher throughput. We focus on multiple wireless environments, in which the channel is modeled as Rayleigh block fading and the channel knowledge among different relays is available for each destination. Several modified virtual full-duplex QMF relaying schemes tailored for different cooperative communication systems are investigated.

**Bio:** Jianqing LI received the Ph.D. degree from Beijing University of Posts and Telecommunications, Beijing, China, in April 1999. From 2000 to 2002, he was a visiting professor of Information and Communications University, Daejeon, Korea. From 2002 to 2004, he was a research fellow of Nanyang Technological University, Singapore. He joined the Macau University of Science and Technology in August 2004. Currently, he is a professor. His research interests are computer networks, wireless communication, fiber sensors and Internet of Things. He was the chair of Macau section of the Institute of Electrical and Electronics Engineers (IEEE) from 2016 to 2017.

# **DAY 1, MONDAY, OCT. 8, 2018**

9:30-17:30

Venue: Hotel Lobby, 1st Floor

签到地点:酒店大堂,1楼

RADISSON BLU HOTEL CHONGQING SHA PING BA No. 8 Hui Quan Road, Sha Ping Ba District, Chongqing 400030, China 中国重庆市沙坪坝区汇泉路8号• 重庆融汇丽笙酒店

#### **Arrival Registration and Collect Conference Materials**

The first day is all about registration. Participants are supposed to sign in at the conference venue and collect all the conference materials at the registration counter on this day. However, the registration is still open on the 2nd day of the conference.

If you wish to join one day tour but haven't reserved, please register onsite on Oct. 8.

# Conference Host:

College of Communication Engineering, Chongqing University

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		Venue: 3F, Gele Ballroom / 歌乐厅
Time	Activity	Representative
9:00-9:10	Welcome Message	<b>Prof. Dan Yang</b> Executive Vice President of Chongqing University
9:10-9:15	Opening Remarks	Prof. Tan Xiaoheng Executive Vice Dean of College of Communication Engineering, Chongqing University
9:15-9:25	Conference Introduction	Prof. Fengchun Tian College of Communication Engineering, Chongqing University, China
9:25-10:00	Grou	up Photo and Coffee Break
10:00-10:40	Keynote Speech I	Speech Title: Digital Healthcare Security  Prof. Abdennour El Rhalibi (IEEE Fellow) Liverpool John Moores University, UK
10:40-11:20	Keynote Speech II	Speech Title: Incorporating Intelligence at Wireless Network Edge  Prof. Gang Feng University of Electronic Science and Technology of China, China
11:20-12:00	Keynote Speech III	Speech Title: Mobile Edge Computing for Internet of Vehicles  Prof. Yan Zhang University of Oslo, Norway
12:00-13:30	17F, Flow <i>A</i>	Lunch Asian Bistro & Bar/ 泉籁特色餐厅

# SESSION 1 Communication Theory and Technology Venue: 3F, Xianhui Room/贤汇厅

Session Cha	air: Assoc.	Prof. Hongyuan Gao, Harbin Engineering University, China
13:45-14:00	CT17	Paper Title: Design of a Ka Band High integration Receiver Module Authors: Hairan Shi, Lu Zhang, Zhanchun Fan, Xin Xue, Tao Zhang, Dong Zhou Presenter: Hairan Shi, Beijing Institute of Spacecraft System Engineering, China
14:00-14:15	СТ89	Paper Title: Opportunistic Relay Selection for Physical Layer Security Enhancement in Internet of Things Authors: Guangna Zhang, Yuanyuan Gao, Huadong Luo, Nan Sha and Shijie Wang Presenter: Guangna Zhang, Graduate School of PLA Army Engineering University, China
14:15-14:30	CT129	Paper Title: A Novel Route Randomization Approach for Moving Target Defense Authors: Shaolei Wang, Ying Zhou, Ronghua Guo, Jing Du, Jiawei Du Presenter: Shaolei Wang, Luoyang Electronic Equipment Test Center of China, China
14:30-14:45	CT198	Paper Title: Lightweight group key distribution method based on high similar wireless channel characteristics Authors: Liangjun Hu, Guyue Li, Aiqun Hu, Congcong Cao Presenter: Congcong Cao, Southeast University, China
14:45-15:00	СТ309	Paper Title: A Novel SM-Based Indoor VLC System with Index Modulation Authors: Bing'an Ren, Zhiquan Bai, Yingchao Yang, Ke Pang, Shangqian Sun, Tao Han, Kyungsup Kwak Presenter: Bing'an Ren, School of information science and Engineering, Shandong University P.R. China
15:00-15:15	СТ326	Paper Title: Comparison Between Generalized Integrated Interleaved Codes and Generalized Error Location Codes Authors: Wenjie Li, Jun Lin, and Zhongfeng Wang Presenter: Wenjie Li, Nanjing University, China
15:15-15:30	CT1007	Paper Title: Design and Experimental Verification of the Digital Array Calibration Authors: Zhanchun Fan, Hailong Du, Hairan Shi, Yang Si Presenter: Zhanchun Fan, Beijing Institute of Spacecraft System Engineering, China
15:30-15:45	CT2044	Paper Title: Key Factors Analysis and Design Optimization of RF Direct Sampling Receiver Authors: Wang Xiaoya, Zheng Jianshu, Zhang Haiying Presenter: Xiaoya Wang, Beijing University of Posts and Telecommunications, China; The 54th Research Institute of CETC, China

15:45-16:00	CT2050	Paper Title: The Performance of Physical Layer Security over K Fading SIMO Channel Authors: Linna Zhou and Yang Cao Presenter: Yang Cao, University of International Relations, China
16:00-16:15	CT2058	Paper Title: A Novel Multiple Access Scheme with Physical Layer Security Authors: Xuanbo Shao, Zhanji Wu Presenter: Xuanbo Shao, Beijing University of Posts and Telecommunications, Beijing, China
16:15-16:30		Session Group Photo & Coffee Breaks

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	SESSION 2		
		Computer Network and Engineering	
		Venue: 3F, Jiehui Room/杰汇厅	
Session Cha	ir: Prof. Y	aw-Chung Chen, National Chiao Tung University, China	
13:45-14:00	CT182	Paper Title: Linear erasure block codes over either a field of rational numbers Q or an algebraic structure Ψq Authors: Yehor Savchenko Presenter: Yehor Savchenko, Beihang University, China	
14:00-14:15	CT52	Paper Title: Time-Sensitive Influence Maximization in Social Networks Authors: Min Hu, Qin Liu, Hejiao Huang, Xiaohua Jia Presenter: Min Hu, Harbin Institute of Technology, Shenzhen, China	
14:15-14:30	CT132	Paper Title: Multi-objective Route Planning Based on Improved K-means Algorithm Authors: Zhenning Wu, Xinxin Wan, Rongheng Lin Presenter: Rongheng Lin, Beijing University of Posts and Telecommunications, China	
14:30-14:45	CT139	Paper Title: SHERPA : A SDN Multipath Approach to Eliminate Resilience Impact on Video Streams Authors: Constant Colombo, Francis Lepage, René Kopp and Eric Gnaedinger Presenter: Constant Colombo, Université de Lorraine, France	
14:45-15:00	CT236	Paper Title: Rumor Spreading Model Considering Iterative Spread on Social Networks Authors: Qiyi Han, Fang Miao, Lei You Presenter: Qiyi Han, Chengdu University, China	
15:00-15:15	CT249	Paper Title: Selective Encryption of H.264/AVC Based on Block Weight Model Authors: Mengdie Huang, Cheng Yang, Yuan Zhang Presenter: Mengdie Huang, Communication University of China, China	
15:15-15:30	CT250	Paper Title: Unsupervised Ego-Motion and Dense Depth Estimation with Monocular Video Authors: Yufan Xu, Yan Wang and Lei Guo Presenter: Yufan Xu, Beihang University, China	

15:30-15:45	СТ297	Paper Title: Research and Design of Interface for Reassigned Mobile Numbers Authors: Shuo Li, Kai Liu, Ran Meng Presenter: Shuo Li, China Academy of Information and Communications Technology, China
15:45-16:00	CT304	Paper Title: Sparsity Based Hybrid Prediction Model for Film Scoring Authors: Ziting Gao, Jun Zhang, Yana Zhang, Cheng Yang Presenter: Ziting Gao, Communication University of China, China
16:00-16:15		Session Group Photo & Coffee Breaks

# SESSION 3

# Channel Coding and Channel Estimation Venue: 3F, Zunhui Room/尊汇厅

Session Chair: Prof. Rong Shi, Science and Technology on Electronic Information Control Laboratory, China

Control Edboratory, China		
13:45-14:00	CT16	Paper Title: Correct Undetected Errors with Context List Decoding in ARQ Error-control Systems Authors: Jingzhao Wang, Yuan Luo Presenter: Jingzhao Wang, Shanghai Jiao Tong University, China
14:00-14:15	CT75	Paper Title: Outage Probability and Throughput Analysis of SWIPT System with Two-Way Relay over Log-normal Fading Channels Authors: Yingting Liu, Ruyi Xiao, Chunman Yan, Hongwu Yang, Xiaojuan Bai, Li Cong Presenter: Yingting Liu, Northwest Normal University, China
14:15-14:30	CT199	Paper Title: Angle-Domain Channel Tracking for High Speed Railway Communications with Massive ULA Authors: Zhexian Shen, Kui Xu, Yurong Wang, Wei Xie Presenter: Zhexian Shen, Army Engineering University of PLA, China
14:30-14:45	CT200	Paper Title: Polar Codes Construction for Fading Channels Authors: Qingping Yu, Zhiping Shi, Yiming Li Presenter: Qingping Yu, National Key Lab of Sci. and Tech. on Communications, UESTC, China
14:45-15:00	CT275	Paper Title: Retrospective Interference Neutralization for the Two-Cell MIMO InterferingMultiple Access Channel Authors: Kang Liu, Wei Tang, Xinhui Zhong, Lu Liu, Wenjiang Feng, Ji Shi Presenter: Xinhui Zhong, Chongqing University, China
15:00-15:15	CT279	Paper Title: OFDM-CPFSK Modulated Physical-layer Network Coding over Frequency Selective Fading Channels Authors: Nan Sha, Mingxi Guo, Yuanyuan Gao Presenter: Mingxi Guo, Graduate School of PLA Army Engineering University, China

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15:15-15:30	CT320	Paper Title: Noise Suppression Threshold Channel Estimation Method Using RC and SRRC Filters in OFDM Systems Authors: Mingtong Zhang, Xiao Zhou, Chengyou Wang Presenter: Mingtong Zhang, Shandong University, China
15:30-15:45	СТЗ49	Paper Title: Construction of Polar Codes with Physical Layer Security on Impulsive Noise Channels Authors: Huan Cao, Zhen Mei, Martin Johnston and Stephane Le Goff Presenter: Huan Cao, Newcastle University, UK
15:45-16:00	СТ367	Paper Title: Channel estimation based on orthogonal factor tensor decomposition for 3D MIMO systems Authors: Qiuyu Zou, Yunchao Song Presenter: Qiuyu Zou, Nanjing University of Posts and Telecommunications, China
16:00-16:15	;	Session Group Photo & Coffee Breaks

Session Cha China	SESSION 4 Information Security and Key Technologies Venue: 3F, Fenghui Room/峰汇厅 Session Chair: Prof. Enji Sun, China Academy of Safety Science and Technology, China		
13:45-14:00	CT07	Paper Title: Semi-supervised Event Message Identification System for Targeted Domain Authors: San San Nwe, Dr. Nang Saing Moon Kham Presenter: San San New, University of Computer Studies, Yangon, Myanmar	
14:00-14:15	CT51	Paper Title: A Service Function Chain Deployment Scheme Based on Heterogeneous Backup Authors: Jichao Xie, Peng Yi, Zhen Zhang, Chuanhao Zhang and Yunjie Gu Presenter: Jichao Xie, National Digital Switching System Engineering & Technological Research Center(NDSC), China	
14:15-14:30	CT137	Paper Title: Research on Key Technologies of Space Integrated Information Network Authors: Jirui Zhang, Shibing Zhu, Changqing Li Presenter: Jirui Zhang, Space Engineering University, China	
14:30-14:45	CT141	Paper Title: Research on Backup Bethod of Service Function Chain Based on Security Classification Authors: Sun Zhiyong, Ji Xinsheng, Tang Hongbo, You Wei, Liu Zhengming Presenter: Sun Zhiyong, National Digital Exchange System Engineering Technology Research Center, China	
14:45-15:00	CT283	Paper Title: Architecture for multilevel secure system design Authors: Yubing Duan, Zhiwei Cui, Yuan Liu Presenter: Yubing Duan, China Academy of Engineering Physics, China	

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15:00-15:15	CT291	Paper Title: Deep Learning Intrusion Detection Model Based On Optimized Imbalanced Network Data Authors: Yan Zhang, Hongmei Zhang, Xiangli Zhang, Dongsheng Qi Presenter: Yan Zhang, Guilin University of Electronic Technology, China
15:15-15:30	СТ336	Paper Title: A Static Analysis Model for Implicit Information Leakage in Android Application Authors: Hongsheng Cao, Jian Jiao, Denghui Li Presenter: Hongsheng Cao, Beijing Information Science and Technology University, China
15:30-15:45	СТ358	Paper Title: Deep Neural Network Based on Android Mobile Malware Detection System Using Opcode Sequences Authors: Lichao Zhao, Dan Li, Guangcong Zheng, Wenbo Shi Presenter: Lichao Zhao, Northeastern University, China
15:45-16:00		Session Group Photo & Coffee Breaks

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SESSION 5		
		Modern Signal Theory and Processing
		Venue: 3F, Yinghui Room/英汇厅
Session Cha	air: Prof. Fe	engchun Tian, Chongqing University, China
13:45-14:00	CT121	Paper Title: A Novel Carrier loop Based On Unscented Kalman Filter Methods For Tracking High Dynamic GPS Signals Authors: Zhiyong Tu, Tiejun Lu, Qiliang Chen Presenter: Zhiyong Tu, Beijing Microelectronics Technology Institute, China
14:00-14:15	CT128	Paper Title: GPS Signal Acquisition Based on Compressive Sensing Authors: Guodong He, Maozhong Song, Peng Song Presenter: Guodong He, Nanjing University of Aeronautics and Astronautics, China
14:15-14:30	CT136	Paper Title: Automatic Modulation Recognition of Digital Signal Based on Auto-encoding Network in MIMO System Authors: Mengchuan Wei, Zaixue Wei, Jianyi Yang, Lin Sang Presenter: Mengchuan Wei, Beijing University of Posts and Telecommunications, China
14:30-14:45	CT158	Paper Title: A Sparse Representation of Array Covariance Vectors for DOA Estimation with Unknown Mutual Coupling Authors: Dandan Meng, Xianpeng Wang, Mengxing Huang, Chong Shen, Yuehao Guo Presenter: Dandan Meng, Hainan University, China
14:45-15:00	CT176	Paper Title: Beidou Weak Signal Acquisition Algorithm Based On Envelope Replaced Differentially Coherent Integration Authors: Jihang Zhou, Manxi Wang, Xiaofan Yang, Minglei Li Presenter: Jihang Zhou, State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, China

15:00-15:15	CT194	Paper Title: Dice Coefficient Matching-Based Sparsity Adaptive Matching Pursuit Algorithm for the Digital Predistortion Model Pruning Authors: MingDong Zhu, Mingyu Li, Zhen Geng, Zhiqiang Yu, Weiliang Jiang, Yi Jin, Ni Dang Presenter: MingDong Zhu, Chongqing University, China
15:15-15:30	CT243	Paper Title: A Direct Frequency Synthesis Chain with Low Phase Noise for a High-performance Cesium Beam Atomic Clock Authors: Guangkun Guo, Dong Hou, Ke Liu, Yindong Xiao, Zaiming Fu and Jie Ma Presenter: Guangkun Guo, University of Electronic Science and Technology of China, China
15:30-15:45	СТ28	Paper Title: Throat Microphone Speech Enhancement via Progressive Learning of SpectralMapping based on LSTM-RNN Authors: Changyan Zheng, Xiongwei Zhang, Meng Sun, Yibo Xing, Huawen Shi Presenter: Changyan Zheng, Army Engineering University, China
15:45-16:00	CT281	Paper Title: Vehicles to Pedestrians Signal Transmissions Based on Cloud Computing Authors: Zhiyi Huang, Junliang Ye, Jiaqi Chen, Xiaohu Ge, Yonghui Li Presenter: Jing Yang, Huazhong University of Science and Technology, China
16:00-16:15		Session Group Photo & Coffee Breaks

SESSION 6 Mobile Communication Network Venue: 3F, Xianhui Room/贤汇厅			
Session Co-Chairs: Assoc. Prof. Yifan Hu, Qilu University of Technology(Shandong Academy of Sciences), China Assoc. Prof. Bo Li, Ningxia University, China			
16:30-16:45	CT38	Paper Title: A Route Maintenance Method for Maritme Mobile Sensor Network Based on RingBroadcast Mechanism Authors: Yifan Hu, Yi Zheng and Hailin Liu Presenter: Yifan Hu, Qilu University of Technology(Shandong Academy of Sciences), China	
16:45-17:00	CT45	Paper Title: A Study of Caprock Integrity in Geological CO2 Sequestration by using Passive Seismic Monitoring System based on 5G network Authors: Enji Sun and Erik Westman Presenter: Enji Sun, China Academy of Safety Science and Technology, China	
17:00-17:15	CT73	Paper Title: Design and Development of Revolved 5G Core Networks Based on Lower-Layer Software-Defined and Upper-Layer Virtualized Approaches Authors: Wen-Kang Jia, Yaw-Chung Chen, Yun Zheng, Ruolan Ying Presenter: Yaw-Chung Chen, National Chiao Tung University, China	

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17:15-17:30	CT146	Paper Title: Research on Non-cooperative Topology Inference Method based on Node Location Information Authors: Zhao Niu, Qiang Li, Tao Ma, Lin Jiang Presenter: Zhao Niu, National University of Defense Technology, China		
17:30-17:45	CT196	Paper Title: A Two-Stage Detector for Cognitive Radio Networks With Correlated Multiple Antennas Over Dynamic Channel Environment Authors: An-Zhi Chen, Zhi-Ping Shi, Keli Huang and Hongxia Sun Presenter: An-Zhi Chen, National Key Laboratory of Science and Technology on Communications, University of Electronic Science and Technology of China, China		
17:45-18:00	CT258	Paper Title: Performance Analysis of SM-Index Modulation Based Cooperative Wireless Communication System Authors: Yingchao Yang, Zhiquan Bai, Ke Pang, Shangqian Sun, Tao Han, Kyungsup Kwak Presenter: Yingchao Yang, Shandong University, China		
18:00-18:15	CT229	Paper Title: Downlink Energy Efficiency Modeling and Optimization for Ultra Cellular HetNet Authors: Bo Li, Xiaoguang Zhang, Jitao Huang, Chao Ma, Xiyuan Wang Presenter: Bo Li, Ningxia University, China		
18:15-18:30	CT2040	Paper Title: Network Slicing Based Mobility Management for Software-Defined 5G Networks Authors: Ruihan Wen, Gang Feng, Jianhong Zhou, Shuang Qin Presenter: Ruihan Wen, UESTC, China		
18:30-18:35	Ses	sion Group Photo		
19:00-20:30	Din	19:00-20:30 Dinner Banquet and Excellent Oral Presentation Certificate Awarding		

SESSION 7 Network Resource Management and Optimization Venue: 3F, Jiehui Room/杰汇厅 Session Chair: Prof. Huaxi Gu, Xidian University, China			
16:15-16:30	CT31	Paper Title: User Association for On-grid Energy Minimizing in HetNets with Hybrid Energy Supplies Authors: Fengli Shi, Kai Sun, Wei Huang, Yongfeng Wei Presenter: Fengli Shi, Inner Mongolia University, China	
16:30-16:45	CT37	Paper Title: DCI-Free based Downlink Prescheduling Scheme for Ultra-Reliable and LowLatency Communications Authors: Man Dai, Ce Sun, Xinyi Wang, Ting Liu Presenter: Man Dai, Beijing Institute of Technology, Beijing, China	
Paper Title: An Online Adaptive Modulation Scheme for Energy Harvestin Nodes Using Bayesian Decision Theory Authors: Kang Liu, Qi Zhu, Han Hu Presenter: Kang Liu, Jiangsu Key Lab of Wireless Communications Nanjin University of Posts and Telecommunication, China			

#### **DAY 2. TUESDAY. OCT. 9. 2018**

DAY 2, TUESDAY, OCT. 9, 2018				
17:00-17:15	CT230	Paper Title: A Scheme of Multi-Domain Cooperative Cost Resource Management in Outdoor+Indoor Het-Net Authors: Bo Li, Xiaoguang Zhang, Jitao Huang, Chao Ma, Guoche Qin Presenter: Bo Li, Ningxia University, China		
17:15-17:30	CT259	Paper Title: Towards Performance Optimization of Network Service Chains with Multi-Ingress and Single-Egress Authors: Yuanhao Li, Yunkai Wei, Yuming Mao Presenter: Yuanhao Li, University of Electronic Science and Technology of China, China		
17:30-17:45	CT285	Paper Title: An Optimal Resource Allocation Algorithm Based on Sum Rate Maximization for Uplink SCMA System Authors: Guan Xiong, Jun Sun Presenter: Guan Xiong, Nanjing University of Posts and Telecommunications, China		
17:45-18:00	CT317	Paper Title: A Load Balance Routing Method with Escape Network for Network-on-Chip Authors: Xing Li, Hui Li, Bowen Zhang Presenter: Xing Li, Xidian University, China		
18:00-18:15	CT344	Paper Title: Interference Analysis and Resource Allocation of Burst Scenario in Massive Machine-Type Communications Authors: Xinpeng Hu, Jun Sun Presenter: Xinpeng Hu, Nanjing University of Posts and Telecommunications, China		
18:15-18:30	СТ2002	Paper Title: Improved Data-aided Joint Carrier Frequency Offset and Time Offset Estimation Method for OFDM/OQAM System Authors: Lunsheng XUE, Shangfei QIU, Peng WU, Ming LIU Presenter: Shangfei Qiu, Air Force Engineering University, China		
18:30-18:35 19:00-20:30		sion Group Photo		
19:00-20:30	ווע	ner Banquet and Excellent Oral Presentation Certificate Awarding		

SESSION 8 Wireless Communication and Transmission Technology Venue: 3F, Zunhui Room/尊汇厅 Session Chair: Prof. Ching-Nung Yang, National Dong Hwa University, Taiwan		
16:15-16:30	CT30	Paper Title: Cost Effective Hash Chain Based Key Pre-Distribution Scheme for Wireless Sensor Network Authors: Ching-Nung Yang, Ting-Ju Lin, Song-Yu Wu, Shin-Shang Lin, and Wei Bi Presenter: Ching-Nung Yang, National Dong Hwa University, Taiwan
16:30-16:45	CT160	Paper Title: Radio Classify Generative Adversarial Networks: A Semi-Supervised Method for Modulation Recognition Authors: Li Mingxuan, Liu Guangyi, Li Shuntao and Wu Yifan Presenter: Mingxuan Li, National Digital Switching System Engineering and Technology Research Center, China

DAY 2, TUESDAY, OCT. 9, 2018			
16:45-17:00	CT173	Paper Title: An Optimal Time Reversal Waveform Based on Sequential Convex Programming for Wireless Power Transmission Authors: Zhi-Wu Lin, Bin-Jie Hu, Zong-Heng Wei, Peng Liao Presenter: Zhiwu Lin, South China University of Technology, China	
17:00-17:15	CT206	Paper Title: Dynamic Spectrum Assignment based on Quantum Harmony Search Algorithm for Cognitive Heterogeneous Wireless Networks Authors: Hongyuan Gao, Yansong Liang, Menghan Chen, Yanan Du, Xiaotong Zhang Presenter: Hongyuan Gao, Harbin Engineering University, China	
17:15-17:30	CT223	Paper Title: Sensor On/Off Based Polling Algorithm for Intelligent Transportation Wireless Sensor Networks Authors: Zhuoxuan Ju, Weiheng Jiang, Bibo Wu, Xiaogang Wu and Hengdong Ye Presenter: Zhuoxuan Ju, Chongqing University, China	
17:30-17:45	CT273	Paper Title: A Dynamic Packet Scheduling Method for Multipath TCP in Heterogeneous Wireless Networks Authors: Guannan Xie, Huifang Chen, Lei Xie, Kuang Wang Presenter: Guannan Xie, Zhejiang University, China	
17:45-18:00	CT288	Paper Title: Wireless Device Identification Based on Improved Convolutional Neural Network Model Authors: Yangxin Yuan, Linning Peng Presenter: Congcong Cao, Southeast University, China	
18:00-18:15	CT331	Paper Title: Adaptive Unequal Clustering Using an Improved LEACH Protocol with Energy Balance Authors: Qiang Li, Jia Sun, Daogang Lu Presenter: Qiang Li, Southwest University of Science and Technology, China	
18:15-18:30	CT371	Paper Title: A Heterogeneous SoC for SoftCast Wireless Video Transmission Authors: Fengxiang Gao, Haoqi Ren, Zhifeng Zhang, Jun Wu, Wei Yu and Jing Shen Presenter: Fengxiang Gao, Tongji University, China	
18:30-18:45	CT372	Paper Title: Indoor Localization Design and Implementation Based on Software Defined Radio Authors: Weiwei Xu, Jun Wu, Xiaonian Gong, Haoqi Ren, Lifan Niu Presenter: Weiwei Xu, Tongji University, China	
18:45-18:50 19:00-20:30		sion Group Photo ner Banquet and Excellent Oral Presentation Certificate Awarding	

# SESSION 9 Network Security and Information Network Venue: 3F, Fenghui Room/峰汇厅

#### Session Chair: Dr. Lei Zhang, Chongqing University, China

Session Chair: Dr. Lei Zhang, Chongqing University, China			
16:00-16:15	CT08	Paper Title: Efficient Detection of Phishing Attacks with Hybrid Neural Networks Authors: Xiaoqing Zhang, Dongge Shi, Hongpo Zhang, Wei Liu, Runzhi Li Presenter: Xiaoqing Zhang, Collaborative Innovation Center of Internet Healthcare, Zhengzhou University, China	
16:15-16:30	CT39	Paper Title: A Software-defined Intranet Dynamic Defense System Authors: Yang Chen, Hongchao Hu, Guozhen Cheng Presenter: Yang Chen, National Digital Switching System Engineering & Technological R&D Center, China	
16:30-16:45	CT86	Paper Title: Items Selection Strategy of Cyber Security CD-CAT Based on Collaborative Filtering Authors: Bin Qi, Hongxia Zou, Yu Wang, Jixing Li Presenter: Bin Qi, Space Engineering University, China	
16:45-17:00	CT112	Paper Title: Framework of Raising Cyber Security Awareness Authors: Yu Wang, Bin Qi, Hong-xia Zou, Ji-xing Li Presenter: Yu Wang, Space Engineering University, China	
17:00-17:15	CT117	Paper Title: Network Intrusion Detection Based on Kernel Principal Component Analysis and Extreme Learning Machine Authors: Yuan Zhou, Le Yu, Mingshan Liu, Yuanyuan Zhang and Helin Li Presenter: Le Yu, Jilin University, China	
17:15-17:30	CT138	Paper Title: Cyber Security Knowledge Graph based Cyber Attack Attribution Framework for Space-ground Integration Information Network Authors: Zheng Zhu, Rong Jiang, Yan Jia, Jinghu Xu, Aiping Li Presenter: Zheng Zhu, National University of Defense Technology, China	
17:30-17:45	CT234	Paper Title: Detecting Hidden User Behavior for Network Data Stream Authors: Aiping Zhou, Lijun Liu, Huisheng Zhu, Jinhai Li, Chengang Zhu Presenter: Aiping Zhou, Taizhou University, China	
17:45-18:00	CT253	Paper Title: A New Timing Steganography Algorithm in Real-Time Transmission Devices Authors: Moses Okello Presenter: Moses Okello, Jiangsu University of Science and Technology, China	
18:00-18:15	CT274	Paper Title: Towards Multi-Factor Mutual Authentication with Privacy Protection in Opportunistic Networks Authors: Cossi Blaise Avoussoukpo, Chunxiang Xu and Marius Tchenagnon Presenter: Cossi Blaise Avoussoukpo, University of Electronic Science and Technology of China, China	

18:15-18:30	CT2037	Paper Title: Study on a Decision Method for Reconfiguration of Network Security Functions Based on Privilege Transition Graph Authors: Jialin Wang, Wen Yu Presenter: Jialin Wang, Beijing University of Posts and Telecommunications, China	
18:30-18:35 Session Group Photo 19:00-20:30 Dinner Banquet and Excellent Oral Presentation Certificate Awarding			

SESSION 10					
	Coding Theory and Technology				
		Venue: 3F, Yinghui Room/英汇厅			
Session Cha	air: Dr.	Yueping Cai, Chongqing University, China			
16:15-16:30	CT113	Paper Title: Performance and Implementation of Enhanced Multi CRC-LSC Polar Codes Authors: Liyun Dai, Junhui Wang, Shiyuan Dong Presenter: Junhui Wang, Jiangxi University of Finance and Economics, China			
16:30-16:45	CT192	Paper Title: Physical-layer Network Coding for Two-Way Relaying with Partial Response CPM Authors: Nan Sha, Mingxi Guo, Yuanyuan Gao Presenter: Mingxi Guo, Graduate School of PLA Army Engineering University, China			
16:45-17:00	CT203	Paper Title: Anti-burst PEG Algorithm for P-LDPC Codes with Short-to-medium Length Authors: Li Deng, Zhiping Shi, Yanxia Li, Rui Tang Presenter: Li Deng, National Key Laboratory of Science and Technology on Communications, UESTC, China			
17:00-17:15	CT204	Paper Title: MIMO Radar Precoding Design with Practical Constraints: A Low-Complexity Approach Authors: Chenglin Ren, Fan Liu, Jianming Zhou Presenter: Chenglin Ren, Beijing Institute of Technology, China			
17:15-17:30	CT319	Paper Title: A Low-Complexity Decoder for Turbo Product Codes Based on Extended Hamming Codes Authors: Yaqi Wang, Jun Lin, and Zhongfeng Wang Presenter: Yaqi Wang, Nanjing University, China			
17:30-17:45	CT338	Paper Title: Network Orchestrated Coding: A Practical Way to Excavate the Network Transmission Capability Authors: Yunkai Wei, Yue Tao and Daogui Liu Presenter: Yue Tao, University of Electronic Science and Technology of China, China			
17:45-18:00	СТ356	Paper Title: An Improved Variable-Node-Based BP Decoding Algorithm for NAND Flash Memory Authors: Guojun Yang, Xingcheng Liu, Xuechen Chen, Zhongfeng Wang Presenter: Guojun Yang, Sun Yat-sen University, China			

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18:00-18:15	CT368	Paper Title: Energy-Efficient Network Coding Scheme for Two-Way Relay Visible Light Communications Authors: Zhen-Yu Wang, Hong-Yi Yu, Da-Ming Wang Presenter: Zhen-Yu Wang, National Digital Switching System Engineering and Technological Research Center, China	
18:15-18:30	СТ373	Paper Title: An Algebraic Construction of Quasi-Cyclic LDPC Codes Based on the Conjugates of Primitive Elements over Finite Fields Authors: Muhammad Asif, Wuyang Zhou, Juma Saidi Ally, Nauman Ali Khan, and Zain ul Abiden Akhtar Presenter: Muhammad Asif, University of Science and Technology of China, China	
18:30-18:35 19:00-20:30		Session Group Photo Dinner Banquet and Excellent Oral Presentation Certificate Awarding	

# **Dinner Banquet**

7pm, Gele Ballroom (歌乐厅), 3rd Floor

Banquet Host: Dr. Zhengchuan Chen, Chongqing University

#### **Charming Chongqing Show and Awarding**

Face-Changing is an ancient Chinese dramatic art that is part of the more general Sichuan opera. Performers wear brightly colored costumes and move to quick, dramatic music. They also wear vividly colored masks, typically depicting well known characters from the opera, which they change from one face to another almost instantaneously with the swipe of a fan, a movement of the head, or wave of the hand.



Acrobatics is the performance of extraordinary human feats of balance, agility, and motor coordination. It can be found in many of the performing arts, sports (sporting) events, and martial arts. Acrobatics is most often associated with activities that make extensive use of gymnastic elements, such as acro dance, circus, and gymnastics, but many other athletic activities — such as ballet and diving — may also employ acrobatics.



# **DAY 3, WEDNESDAY, OCT. 10, 2018**

Conference Host: Prof. Yunjian Jia, College of Communication Engineering, Chongqing University Venue: 3F, Xiangshan Ballroom / 香山厅			
Time	Activity	Representative	
9:00-9:40	Keynote Speech I	Speech Title: Optical Fiber Sensors and Applications  Prof. Shum Ping (OSA Fellow & SPIE Fellow)  Nanyang Technological University, Singapore	
9:40-10:10	Group Photo and Coffee Break		
10:10-10:50	Keynote Speech II	Speech Title: Cognitive Industrial Internet of Things and 5G MTC's Role  Dr. Sumei Sun (IEEE Fellow) Head, Communications and Networks Cluster at Institute for Infocomm Research, Lead PI, Industrial Internet of Things Research Program, A*STAR, Singapore	
10:50-11:30	Keynote Speech III	Speech Title: Virtual Full-Duplex Quantize-Map-Forward Relaying for Cooperative Communications  Prof. Jianqing LI Macau University of Science and Technology, China	
11:30-12:00	Poster Session 2		
12:00-13:30	17F,	Lunch Flow Asian Bistro&Bar/泉籁特色餐厅	

# SESSION 11 Communication and Information System Venue: 3F, Jiehui Room/杰汇厅

Session Chair: Prof. Qiang Li , Southwest University of Science and Technology, China

China		
13:30-13:45	CT99	Paper Title: NLOS Detection and Mitigation for UWB/IMU Fusion System based on EKF and CIR Authors: Zhuoqi Zeng, Steven Liu, Lei Wang Presenter: Zhuoqi Zeng, Bosch (China) Investment Ltd., China
13:45-14:00	CT111	Paper Title: Low Power Design of Handheld Terminal of Independent and Controllable Satellite Mobile Communication Authors: Yeping Tong Zhenwen Gui Bo Chen Yungang Chen Presenter: Yeping Tong, China Electronics Technology Group Corporation, China
14:00-14:15	CT164	Paper Title: On the Performance of Multiuser CDMA System using Separate Channel Streams Authors: Sabahat Sherien, Muhammad Zeeshan Presenter: Sabahat Sherien, NUST, Pakistan
14:15-14:30	CT180	Paper Title: Doppler Compensation of Underwater Acoustic OFDM Based on Parallel Search in Time and Frequency Domain and FPGA Implementation Authors: Jun Wang, Zhe Xie, Junsheng Jiao Presenter: Jun Wang, Hangzhou Applied Acoustics Research Institute, Hangzhou, China
14:30-14:45	CT187	Paper Title: Atmospheric Absorption Loss Estimation of Terahertz Wave Band Satellite Ground Detection Authors: Xiaofan Yang, Minglei Li, Yahua Wang, Yonghu Zeng Presenter: Jihang Zhou, State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, China
14:45-15:00	CT191	Paper Title: Modulation Analysis for Long Distance Underwater VLC Systems Under Dead Time Limit Authors: Yawei Ji, Guofeng Wu, Shaoguang Wang Presenter: Yawe Ji, National Digital Switching System Engineering & Technology Research Center, China
15:00-15:15	СТ293	Paper Title: Uplink Pilot-to-Data Power Ratio Design Based onUser Joint Optimization Algorithm in Multi-cellMassive MIMO System Authors: Yasong Zhu, Hairong Wang Presenter: Yasong Zhu, Nanjing University of Posts and Telecommunications, China
15:15-15:30	СТ298	Paper Title: A Real-Time Distributed Algorithm for Satellite Constellation Routing Authors: Chenyu Liu, Yongjian Liu Presenter: Chenyu Liu, University of Electronic Science and Technology of China, China

# **DAY 3, WEDNESDAY, OCT. 10, 2018**

15:30-15:45	CT315	Paper Title: Uplink Asynchronous Fractional Pilots Scheduling in Massive MIMO System Authors: Ruifeng Zhou, Youhua Fu, Hairong Wang Presenter: Ruifeng Zhou, Nanjing University of Posts and Telecommunications, China
15:45-16:00	CT366	Paper Title: Inter-layer Topology Design for IGSO/MEO Double-Layered Satellite Network with the Consideration of Beam Coverage Authors: Hongcheng Yan, Yahang Zhang, Rui Zhang, Lianlian Zeng and Weisong Jia Presenter: Hongcheng Yan, Institute of Spacecraft System Engineering, China Academy of Space Technology, China
16:00-16:15	CT2008	Paper Title: Agglomerative Group Scheduling for MmWave Massive MIMO under Hybrid Beamforming Architecture Authors: Huazheng Xu, Shibing Zhu, Denglong Lv, Jiang Zhao Presenter: Huazheng Xu, Space Engineering University, China
16:15-16:30 Session Group Photo & Coffee Breaks		

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	SESSION 12		
IOV Communication and System			
		Venue: 3F, Zunhui Room/尊汇厅	
Session Cha	air: Dr. Mir	ngchun Tang, Chongqing University, China	
		Paper Title: Communication, Caching and Computing for Internet of	
	Invited	Vehicles Authors: Ke Zhang	
13:30-13:50	Talk	Presenter: Ke Zhang, University of Electronic Science and Technology of	
	7 (1111	China, China	
		Paper Title: Review of TDMA-Based MAC Protocols for Vehicular Ad Hoc	
13:50-14:05	CT74	Networks Authors: Aghmaz Ul Haq, Kai Liu	
13.30-14.03	GI/T	Presenter: Aghmaz Ul Haq, Beihang University, China	
		Paper Title: Vehicular Clustering: Fog Paradigm and Recent Advances	
14:05-14:20	CT115	Authors: Fatin Hamadah Rahman, Au Thien Wan, Newaz S.H., Wida Susanty Suhaili	
14.05-14.20	GIIIJ	Presenter: Au Thien Wan, Universiti Teknologi Brunei, Brunei Darussalam	
		β	
		Paper Title: A Novel Clustering Algorithm Based on Mobility for VANET	
14:20-14:35	CT122	Authors: Xianlei Ge, Qiang Gao, Xunzhong Quan	
		Presenter: Xianlei Ge, Huainan Normal University, China	
l		Paper Title: Analysis of Traffic Status using On-line Traffic Maps and	
		Real-time Information of Parking Spaces	
14:35-14:50	CT282	Authors: Chan-Tong Lam, Benjamin Ng and Issac Pun	
		Presenter: Sai Hou Issac Pun, Macao Polytechnic Institute, China	
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# **DAY 3, WEDNESDAY, OCT. 10, 2018**

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14:50-15:05	CT284	Paper Title: A Generalized Multi-Stage P-Persistent MAC Protocol for V2V Communications Authors: Xiaosha Chen, Supeng Leng, Sun Mao, and Fan Wu Presenter: Xiaosha Chen, University of Electronic Science and Technology of China, China
15:05-15:20	CT385	Paper Title: An Effective Selection Method For Vehicle Alternative Route Under Traffic Congestion Authors: Jie Xu, Yong Zhang and Chunxiao Xing Presenter: Jie Xu, Tsinghua University, Beijing, China
15:20-15:35	CT1002	Paper Title: Real-time evaluation method for road service level based on traffic model driven Authors: Kui Qian, Hong Yan Presenter: Kui Qian, The 28th Research Institute of China Electronics Technology Group Corporation, China
15:35-15:50	CT2047	Paper Title: Compatibility Studies of IMT System and Automotive Radar in the Frequency Range 24.5-25.5 GHz Authors: Zhaojun Qian, Tan Wang, Jiajia Chen Presenter: Zhaojun Qian, State Radio Monitoring Centre, China
15:50-16:00 Session Group Photo & Coffee Breaks		

	SESSION 13		
	Optical Communication and Antenna Design		
		Venue: 3F, Fenghui Room/峰汇厅	
		venue. 31, rengnar Room/ ##1L/J	
		Prof. Dong Hou, University of Electronic Science and	
Technology	of China, (	.,	
	_	Paper Title: Fiber-optic microsensing based on dispersive interferences	
13:30-14:00	Invited	Authors: Nan-Kuang Chen	
10.00 11.00	Talk	Presenter: Nan-Kuang Chen, Liaocheng University, China	
		Paper Title: Free-space Synchronization with Sub-nanosecond Resolution	
		Using Atmospheric Optical Time Transfer	
14:00-14:15	CT24	Authors: Danian Zhang and Dong Hou Presenter: Danian Zhang, University of Electronic Science and Technology of	
		China, China	
		Gillia, Gillia	
		Paper Title: On Polarization Matching Algorithm of VICTS Antenna	
		Authors: Zheng Liu, Xue Lei, Zhijian Xu, Tianpeng Li, Haoming Hu	
14:15-14:30	CT178	Presenter: Zheng Liu, National Digital Switching System Engineering and	
		Technological R&D Center, China	
		Paper Title: Power Allocation of Non-Orthogonal Multiple Access with	
14:30-14:45	CT256	Variable On-off KeyingDimming Control in Visible Light Communication	
		Networks  Authors: Size Too Vu 7ug Hongri Vu Oing Li and Vangun Tong	
		Authors: Siyu Tao, Yu Zuo, Hongyi Yu, Qing Li, and Yanqun Tang	
		Presenter: Siyu Tao, National Digital Switching System Engineering and Technological Research Center (NDSC), China	
		reciniological Neseal Cli Center (NDSC), Clinia	

#### **DAY 3. WEDNESDAY. OCT. 10. 2018**

DAY 3, WEDNESDAY, OCT. 10, 2018		
14:45-15:00	СТ301	Paper Title: A Novel Design of Miniaturized Butler Matrix Authors: Ruobing Liang, Yan Zhang, Wenjie Yan, Jinhao Wang, Yan Tong, Chuan Lin, Qin Chang Presenter: Ruobing Liang, Beihang University, China
15:00-15:15	СТ308	Paper Title: Enhanced Performance of Indoor Cooperative IHDAF Protocol based SM VLC System Authors: Bing'an Ren, Zhiquan Bai, Yingchao Yang, Ke Pang, Shangqian Sun, Tao Han, Kyungsup Kwak Presenter: Bing'an Ren, Shandong University, P.R. China
15:15-15:30	СТ322	Paper Title: Simulation and Experimental Research of Transmission Characteristics of Multi-Modal OAM Antenna Array Based on Vortex Electromagnetic Wave Authors: Wenjie Yan, Yan Zhang, Jinhao Wang, Ruobing Liang, Yan Tong, Chuan Lin, Qin Chang Presenter: Ruobing Liang, Beihang University, China
15:30-15:45	СТ369	Paper Title: Resource Allocation Based on Dynamic User Priority for Indoor Visible Light Communication Ultra-Dense Networks Authors: Xiangwei Bai, Qing Li, Siyu Tao Presenter: Xiangwei Bai, National Digital Switching System Engineering and Technological Research Center, Zhengzhou, China
15:45-16:00	СТ370	Paper Title: Measurement-based Massive MIMO Antenna Selection in Indoor Office Scenario at 3.52 GHz Authors: Xiaonan Wang, Yan Zhang, Limin Xiao, Zunwen He Presenter: Xiaonan Wang, Beijing Institute of Technology, China
16:00-16:15	CT2057	Paper Title: Influence of channel error on nulling antenna's anti-jamming performance Authors: Zeng Hao, Ji Lixia, Zhao Yunxiao, Dong Tao Presenter: Ji Lixia, Chongqing University, China
16:15-16:30 Session Group Photo & Coffee Breaks		

SESSION 14 Computer Vision and Image Processing Venue: 3F, Yinghui Room/英汇厅 Session Chair: Assoc. Prof. Ying Qian, North Minzu University, China		
13:30-13:45	CT18	Paper Title: Image Denoising Algorithm Based on Improved Wavelet Threshold Function and Median Filter Authors: Ying Qian Presenter: Ying Qian, North Minzu University, China
13:45-14:00	CT32	Paper Title: Metric Learning Algorithm Based on Weighted Pairwise Constrained Component Analysis for Person Re-identification Authors: Wenjin Ma, Hua Han, Yujin Zhang and Chunhui Wang Presenter: Wenjin Ma, Shanghai University of Engineering Science, China

### **DAY 3, WEDNESDAY, OCT. 10, 2018**

14:00-14:15	CT120	Paper Title: Random permutation-based block compressed sensing for image Encryption-then-Compression applications Authors: Bo Zhang, Lei Yang, Kai Wang, Yuqiang Cao Presenter: Zhang Bo, Army Engineering University, China
14:15-14:30	CT228	Paper Title: Filtered Image Forensics Based on Frequency Domain Features Authors: Dongping Wang, Tiegang Gao Presenter: Tiegang Gao, Nankai University, China
14:30-14:45	CT237	Paper Title: Spatial Image Steganalysis based on ResNeXt Authors: Akash Sharma and Sunil Kumar Muttoo Presenter: Akash Sharma, Birla Institute of Technology & Science, India
14:45-15:00	CT247	Paper Title: P-FDCN based Eye State Analysis for Fatigue Detection Authors: Rui Huang, Yan Wang and Lei Guo Presenter: Rui Huang, Beihang University, China
15:00-15:15	CT311	Paper Title: Amharic Character Image Recognition Authors: Birhanu Hailu Belay, Tewodros Amberbir Habtegebrial, Didier Stricker Presenter: Birhanu Hailu Belay, Bahir Dar Institute of Technology, Ethiopia
15:15-15:30	СТ312	Paper Title: Weakly Supervised Learning of Object-Part Attention Model for Fine-grained Image Classification Authors: Chenxi Lei, Linfeng Jiang, Jingshen Ji, Weilin Zhong and Huilin Xiong Presenter: Chenxi Lei, Shanghai Jiao Tong University, China
15:30-15:45	СТ299	Paper Title: Exploiting class hierarchies for large-scale scene classification using hybrid discriminative approach Authors: Mehwish Malik, Anis ur Rahman Presenter: Mehwish Malik, National University of Science and Technology, Islamabad, Pakistan
15:45-16:00	CT359	Paper Title: Prediction of Human Body Motion from Video Sequences Authors: Zhuoheng Huang, Yue Yu, Xiangru Chen, Wei Wei Presenter: Zhuoheng Huang, Beijing Institute of Technology, China
16:00-16:1	5	Session Group Photo & Coffee Breaks

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### Electronics and Communication Engineering Venue: 3F, Jiehui Room/杰汇厅

Session Chair: Dr. Fang Tang, Chongqing University, China

16:30-16:45	CT34	Paper Title: Improved Amplitude Control Technique of Low Phase Noise LC VCO Authors: Xuefeng Wu, Zhiping Wen, Xunping Hou Presenter: Xuefeng Wu, Beijing Microelectronics Technology Institute, China
16:45-17:00	CT109	Paper Title: LayerOS: Scheduling Apps between the Local System and the Cloud to Extend Scalability of Wearable Devices Authors: Yifei Zhou, Shaoyong Li, Yaping Liu Presenter: Yifei Zhou, Central South University, China
17:00-17:15	CT224	Paper Title: Design and Analysis of an Ultra-wideband Frequency Selective Surface with Adjustable Stopband Authors: Yinglong Song, Yan Zhang, Xiaochun Liu, Qian Wang, Jinhao Wang, Yan Tong, Ruobing Liang Presenter: Yinglong Song, Beihang University, China
17:15-17:30	СТ294	Paper Title: Power Amplifier Behavioral Model Dimension Pruning Using Sparse Principal Component Analysis Authors: Yao Yao, Songbai He, Mingyu Li, MingDong Zhu Presenter: Yao Yao, University of Electronic Science and Technology of China, China
17:30-17:45	СТЗЗЗ	Paper Title: Simulation and Analysis of Cylinder-Conformed and Sphere-conformed FSS Authors: Yan Tong, Yan Zhang, Qian Wang, Xiaochun Liu, Jinhao Wang, Ruobing Liang Presenter: Yan Tong, Beihang University, China
17:45-17:5 18:30-20:0		Session Group Photo Dinner and Excellent Oral Presentation Certificate Awarding 17F, Flow Asian Bistro & Bar/ 泉籁特色餐厅

## SESSION 16

Communication Equipment Performance Testing and Optimization Venue: 3F, Zunhui Room/尊汇厅

**Session Co-Chairs:** 

Assoc. Prof. Xuebo Zhang, Laboratory of Underwater Acoustics, China

Assoc. Prof. Guojun Li, Chongqing University of Posts and Telecommunications,

China

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16:00-16:15	CT10	Paper	Title:	Α	Comparison	of	PCA	based	Imaging	Methods	for	the
		Multire	eceiver	SA	S							
		Author	s: Xuel	00 2	Zhang, Cheng T	Гan,	Bo Ya	ang				
		Presen	ter: Xu	ebo	Zhang, Labor	ato	ry of l	Jnderw	ater Acous	stics, China	a	

#### **DAY 3. WEDNESDAY, OCT. 10, 2018**

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16:15-16:30	CT124	Paper Title: A General Method for Accelerating the Kasumi Algorithm on Intel Processors Authors: Qilin Bai, Naijie Gu, Junjie Su and Kuai Yu Presenter: Qilin Bai, University of Science and Technology of China, China
16:30-16:45	CT179	Paper Title: Survey of Cycle Slip Detection and Correction Techniques for Single Frequency Receivers Authors: Salma Zainab Farooq, Dongkai Yang, Tian Jin, Echoda Ngbede Joshua Ada Presenter: Salma Zainab Farooq, Beihang University, China
16:45-17:00	CT197	Paper Title: A Novel Skywave Over-the-horizon Transmission Scheme of Remote Island Reef Environment Monitoring Based on Wide-area Collaborative Reception Authors: Guojun Li, Zijie Hong, Pan Wen, Changrong Ye, Jinliang Qiao, Yakun Xing, Lu Tan, Xiaofei Xu Presenter: Guojun Li, Chongqing University of Posts and Telecommunications, China
17:00-17:15	CT205	Paper Title: A 3D Placement of Unmanned Aerial Vehicle Base Station based on Multi-Population Genetic Algorithm for Maximizing Users with Different QoS Requirements Authors: Yancheng Chen, Ning Li, Cong Wang, Wei Xie, Jianhui Xv Presenter: Yancheng Chen, PLA University of Science and Technology, China
17:15-17:30	СТ260	Paper Title: Adaptive Energy Management in Mobile Devices using Heterogenous Energy Storage Units Authors: S. M. Ikram, S. M. Abis Naqvi, Zhirong Shen, Guanglin Zhang Presenter: Guanglin Zhang, Donghua University, China
17:30-17:45	CT325	Paper Title: Energy Scheduling in Mobile Device using Heterogeneous Batteries Authors: S. M. Abis Naqvi, S. M. Ikram, Zhirong Shen, Guanglin Zhang Presenter: Guanglin Zhang, Donghua University, China
17:45-17:5 18:30-20:0		Session Group Photo Dinner and Excellent Oral Presentation Certificate Awarding 17F, Flow Asian Bistro & Bar/ 泉籁特色餐厅

### SESSION 17 Network Architecture Design and Calculation Venue: 3F, Fenghui Room/峰汇厅

#### **Session Co-Chairs:**

Dr. Zhengchuan Chen, Chongqing University, China

Dr. Yantao Yu, Chongqing University, China

16:30-16:45	СТ20	Paper Title: A Network Selection Algorithm based on Improved Genetic Algorithm Authors: Juanmin Chen, Damin Zhang, Dong Liu and Zhiyuan Pan Presenter: Juanmin Chen, Guizhou University, China

### **DAY 3, WEDNESDAY, OCT. 10, 2018**

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16:45-17:00	CT100	Paper Title: Demonstration of vCDN Scheme Based on Multi-Access Edge Computing and 5G Virtualization Authors: Huazhang LV, Dan Chen, Youxiang Wang Presenter: Huazhang LV, China Unicom, China
17:00-17:15	CT140	Paper Title: Association Analysis Algorithm based on Knowledge Graph for Space-Ground Integrated Network Authors: Yulu Qi, Rong Jiang, Yan Jia, Runheng Li, Aiping Li Presenter: Yulu Qi, National University of Defense Technology, China
17:15-17:30	CT264	Paper Title: Power-Delay Tradeoff in Mobile-Edge Computation Offloading with Heterogeneous Applications Authors: Said Muhammad, Zhirong Shen, Jie Qi, Guanglin Zhang Presenter: Guanglin Zhang, Donghua University, China
17:30-17:45	СТ265	Paper Title: Distributed Computation Framework For Circuit Evolutionary Design Under CS Network Architecture Authors: Xiuli Zhang, Pengfei Xia and Jingsong He Presenter: Xiuli Zhang, University of Science and Technology of China, China
17:45-18:00	СТ272	Paper Title: Understanding and Modeling of the Real Application Traffic Characteristics for Fast on-chip Network Evaluation Authors: Kang Wang, Huaxi Gu Presenter: KangWang, Xidian University, China
18:00-18:15	CT303	Paper Title: A SDN-based Hybrid Electrical Optical Architecture Authors: Kexian Chen, Xiaoshan Yu, Yunfeng Lu, Jiahui Wang Presenter: Kexian Chen, Xidian University, China
18:15-18:2 18:30-20:0	0	Session Group Photo Dinner and Excellent Oral Presentation Certificate Awarding 17F, Flow Asian Bistro & Bar/泉籁特色餐厅

SESSION 18 Electronic Information Technology and Engineering Applications Venue: 3F, Yinghui Room/英汇厅 Session Chair: Assoc. Prof. Lihua Lei, China Academy of Space Technology, China				
16:15-16:30	CT227	Paper Title: Characteristics research on cross-media interaction and transmission of ultrashort pulse laser Authors: Lihua Lei, Ju Zhou, Guixing Cao, Cong Li Presenter: Lihua Lei, China Academy of Space Technology, China		
16:30-16:45	CT131	Paper Title: A Method Based on Frequent Pattern Mining to Predict Spectral Availability of HF Authors: Chujie Wu, Yunpeng Cheng, Yuping Gong, Guoru Ding, Ling Yu, Zhe Zhang Presenter: Chujie Wu, Army Engineering University of PLA, China		

#### **DAY 3, WEDNESDAY, OCT. 10, 2018**

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16:45-17:00	CT150	Paper Title: Increasing the Accuracy of Approximate Adders With Very Low Extra Complexity Authors: Yangcan Zhou, Jun Lin, Zhongfeng Wang Presenter: Yangcan Zhou, Nanjing University, China
17:00-17:15	CT177	Paper Title: Research on the RCS of Serrate Gap in Real Aircraft State Authors: Jingcheng Zhao, Hangyu Chen, Xiuzhu Ye Presenter: Hangyu Chen, Beihang University, China
17:15-17:30	CT270	Paper Title: Person Tracking and Frontal Face Capture with UAV Authors: Qifeng Shen, Linfeng Jiang, and Huilin Xiong Presenter: Qifeng Shen, Shanghai Jiao Tong University, China
17:30-17:45	CT218	Paper Title: A Short Term Load Periodic Prediction Model Based on GBDT Authors: Beibei Chen, Rongheng Lin, Hua Zou Presenter: Beibei Chen, Beijing University of Posts and Telecommunications, China
17:45-18:00	CT219	Paper Title: An Improved Reservoir Sampling Algorithm for Unbalanced Power Data Authors: Qian Bi, Rongheng Lin, Yao Zhao Presenter: Qian Bi, Beijing University of Posts and Telecommunications, China
18:00-18:15	CT171	Paper Title: Boundary Protection System Based on Software-defined Networking Authors: Lihui Cao, Xiaoming Zhu, Shubin Xu, Linjie Zhang Presenter: Lihui Cao, Science and Technology on Communication Networks Laboratory, CETC54, China
18:15-18:2 18:30-20:0		Session Group Photo Dinner and Excellent Oral Presentation Certificate Awarding 17F, Flow Asian Bistro & Bar/ 泉籁特色餐厅

# Since below two activities conflict in time, we suggest you choose either of it.

### 1. 3:00pm-4:30pm Chongqing University Visiting

Please gather at main building of Chongging University at 2:50pm on Oct. 11.

#### 2. Full Day: One day tour in Chongqing (Optional, 100RMB/Person)

Registration Deadline: Oct. 8, 2018

If you'd like to join this tour but haven't reserved. Please register and pay onsite on Oct. 8. Please gather at conference hotel lobby at 7:40am on Oct. 11.

#### INTRODUCTION OF CHONGQING UNIVERSITY VISITING

#### **Chongqing Engineering Laboratory of High Performance Integrated Circuits**

Chongqing Engineering Laboratory of High Performance Integrated Circuits is the only

integrated engineering lab of Chongqing approved by Chongqing Development and Reform Commission. The laboratory responds to Chongqing's big data intelligent development strategy, studies the world's leading intelligent



integrated circuit design theory and implementation technology, and are widely involved in system-level areas such as smart healthcare, big data, cloud computing and information security. It has formed a scientific research system with intelligent integrated circuits and intelligent systems as dual cores, supporting Chongqing's construction of intelligent industry, intelligent manufacturing, intelligent application "three in one" development pattern. Research areas include mixed-signal integrated circuit design, sensing circuits and systems, and power device design and application. High-level

#### **DAY 4, THURSDAY, OCT. 11, 2018**

papers have been published in famous journals such as Transactions on Neural Networks and Learning Systems. IEEE Journal of Solid-State Circuits. IEEE Transactions on Circuits and Systems-I. IEEE Electron Device Letters. IEEE Transactions on Electron Devices, etc.

#### Chongqing Key Laboratory of Bio-perception & Intelligent Information Processing

Chongqing Key Lab of Bio-perception & Intelligent Information Processing dedicates to the research of bio-perception and related intelligent information processing technology in the crossed field of the electronic information science and the life



science, including three research directions: bionic sense of smell, electrophysiological signals perception, biosensor and internet of things technology. The laboratory has scientific research instruments which are worth more than 10 million Yuan. In recent 3 years, the laboratory has undertaken 88 research projects of state-level and ministerial level, as well as enterprise cooperation projects, has authorized more than 65 national invention patents among which 15 invention patents have been transferred, and has published 219 high level papers.

Website: http://www.bioklab.cqu.edu.cn/

#### **Chongging Engineering Research Center for Special Communication and Networking**

Chongqing Engineering Research Center for Special Communication and Networking is based on the discipline of "Information and Communication Engineering" and the national defense discipline of "Communication and Information System". The national defense discipline includes "Space Information Transmission Theory and Technology", "Military Networking and Exchange",

国家科学技术进步奖 证 书 为表彰国家科学技术进步奖获得者、 特颁发此证书。 项目名称: 特种通信系统 奖励等级: 二等 获 奖 者: 重庆大学

"Anti-interference Information Transmission"

disciplines. The center has undertaken more than 50 R&D projects, which includes National Natural Science Key Projects, National 863 Plan Projects, Special research and engineering

#### **DAY 4, THURSDAY, OCT. 11, 2018**

design projects offered by enterprises and institutions. and has won 1 second prize of State Scientific and Technological

Progress Award, 1 Second Prize of Military Science and Technology Progress Award, 2 Second Prizes of Chongqing Science and Technology Progress Award. More than 100 USA and China patents have been authorized, among them more than 30 patents were transferred to enterprises, and remarkable economic and social benefits have been achieved.

# Key Laboratory of Dependable Service Computing in Cyber Physical Society (Chongqing University), Ministry of Education

In 2011, a key lab of CPS-DSC, Ministry of Education, affiliated to Chongqing University, was formally established, passing the evaluation of the Ministry of Education's team of experts in 2013 December. It is currently the only named CPS research and development platform among all Ministry of Education Key Laboratories.



"Open & Collaborative, Interdisciplinary yet Synthesized". Since the CPS-DSC, establishment of hundreds of teachers and students, are able to specialize and research the forefront of their respective fields.

Meanwhile, they have also taken on an active interdisciplinary approach, gradually establishing Institute of Cybersecurity Studies(CPS-ICS), Institute of Big Data & Intelligent Services(CPS-BDS), Institute of Smart Transportation & Intelligent Automation(CPS-STA), Institute of Microelectronic technology(CPS-IMT). Moreover, our team has participated in various academic dialogues with foreign and domestic research groups and institutes as well as with IT corporate firms, establishing "CPS-Enlightment Forum" and various R&D test-beds including "Cyber Infrastructure

Range", "Platform for Quantum-Resistant Algorithm Research", "Emulation Systems for Automate Driving", "ParaStor200 Cloud Storage System", and "Evaluation System for Advanced Chips".

#### INTRODUCTION OF ONE DAY TOUR

7:40-Gather at Conference Hotel Lobby (会议酒店大堂集合)

8:00-Hongyan Soul Square (红岩魂广场)

9:00-Cinder Cave (渣滓洞) and Residence of Baiju (白公馆)

11:30-Ciqikou (磁器口)

12:00-Lunch

14:00-Liziba Light Rail Station (李子坝轻轨站)

14:30-The People's Great Hall (人民大礼堂)

16:00-Changjiang Cableway (长江索道)

17:00-Send back to conference Hotel (送回酒店散团)



Bring a bottle of water with you

Guests are responsible for their own belongings.

The above places are for references. Final schedule may be adjusted to the actual notice.







## **Presentation Quick View**

### - Oral Presentation -

#### Session 1 | Oct. 9, 2018 /13:45-16:15, Xianhui Room, 3rd Floor < Communication Theory and Technology>

CT17	Design of a Ka Band High integration Receiver Module
CT89	Opportunistic Relay Selection for Physical Layer Security Enhancement in Internet of Things
CT129	A Novel Route Randomization Approach for Moving Target Defense
CT198	Lightweight group key distribution method based on high similar wireless channel characteristics
CT309	A Novel SM-Based Indoor VLC System with Index Modulation
CT326	Comparison Between Generalized Integrated Interleaved Codes and Generalized Error Location Codes
CT1007	Design and Experimental Verification of the Digital Array Calibration
CT2044	Key Factors Analysis and Design Optimization of RF Direct Sampling Receiver
CT2050	The Performance of Physical Layer Security over K Fading SIMO Channel
CT2058	A Novel Multiple Access Scheme with Physical Layer Security

#### Session 2 | Oct. 9, 2018 /13:45-16:00, Jiehui Room, 3rd Floor < Computer Network and Engineering >

CT182	Linear erasure block codes over either a field of rational numbers Q or an algebraic structure
	$\Psi q$
CT52	Time-Sensitive Influence Maximization in Social Networks
CT132	Multi-objective Route Planning Based on Improved K-means Algorithm
CT139	SHERPA: A SDN Multipath Approach to Eliminate Resilience Impact on Video Streams
CT236	Rumor Spreading Model Considering Iterative Spread on Social Networks
CT249	Selective Encryption of H.264/AVC Based on Block Weight Model
CT250	Unsupervised Ego-Motion and Dense Depth Estimation with Monocular Video
CT297	Research and Design of Interface for Reassigned Mobile Numbers
CT304	Sparsity Based Hybrid Prediction Model for Film Scoring

# Session 3 | Oct. 9, 2018 /13:45–16:00, Zunhui Room, 3rd Floor < Channel Coding and Channel Estimation>

CT16	Correct Undetected Errors with Context List Decoding in ARQ Error-control Systems
CT75	Outage Probability and Throughput Analysis of SWIPT System with Two-Way Relay over Log-normal Fading Channels
CT199	Angle-Domain Channel Tracking for High Speed Railway Communications with Massive ULA
CT200	Polar Codes Construction for Fading Channels
CT275	Retrospective Interference Neutralization for the Two-Cell MIMO InterferingMultiple Access
CT279	OFDM-CPFSK Modulated Physical-layer Network Coding over Frequency Selective Fading Channels
CT320	Noise Suppression Threshold Channel Estimation Method Using RC and SRRC Filters in OFDM Systems

### PRESENTATION QUICK VIEW

CT349	Construction of Polar Codes with Physical Layer Security on Impulsive Noise Channels
CT367	Channel estimation based on orthogonal factor tensor decomposition for 3D MIMO systems

# Session 4 | Oct. 9, 2018 /13:45–15:45, Fenghui Room, 3rd Floor < Information Security and Key Technologies>

CT07	Semi-supervised Event Message Identification System for Targeted Domain
CT51	A Service Function Chain Deployment Scheme Based on Heterogeneous Backup
CT137	Research on Key Technologies of Space Integrated Information Network
CT141	Research on Backup Bethod of Service Function Chain Based on Security Classification
CT283	Architecture for multilevel secure system design
CT291	Deep Learning Intrusion Detection Model Based On Optimized Imbalanced Network Data
CT336	A Static Analysis Model for Implicit Information Leakage in Android Application
CT358	Deep Neural Network Based on Android Mobile Malware Detection System Using Opcode Sequences

# Session 5 | Oct. 9, 2018 /13:45-16:00, Yinghui Room, 3rd Floor < Modern Signal Theory and Processing>

CT121	A Novel Carrier loop Based On Unscented Kalman Filter Methods For Tracking High Dynamic
	GPS Signals
CT128	GPS Signal Acquisition Based on Compressive Sensing
CT136	Automatic Modulation Recognition of Digital Signal Based on Auto-encoding Network in
	MIMO System
CT158	A Sparse Representation of Array Covariance Vectors for DOA Estimation with Unknown
	Mutual Coupling
CT176	Beidou Weak Signal Acquisition Algorithm Based On Envelope Replaced Differentially
	Coherent Integration
CT194	Dice Coefficient Matching-Based Sparsity Adaptive Matching Pursuit Algorithm for the
	Digital Predistortion Model Pruning
CT243	A Direct Frequency Synthesis Chain with Low Phase Noise for a High-performance Cesium
	Beam Atomic Clock
CT28	Throat Microphone Speech Enhancement via Progressive Learning of Spectral Mapping based
	on LSTM-RNN
CT281	Vehicles to Pedestrians Signal Transmissions Based on Cloud Computing

## Session 6 | Oct. 9, 2018 /16:30-18:30, Xianhui Room, 3rd Floor < Mobile Communication Network>

CT38	A Route Maintenance Method for Maritme Mobile Sensor Network Based on RingBroadcast
	Mechanism
CT45	A Study of Caprock Integrity in Geological CO2 Sequestration by using Passive
	Seismic Monitoring System based on 5G network
CT73	Design and Development of Revolved 5G Core Networks Based on Lower-Layer
	Software-Defined and Upper-Layer Virtualized Approaches
CT146	Research on Non-cooperative Topology Inference Method based on Node Location
	Information
CT196	A Two-Stage Detector for Cognitive Radio Networks With Correlated Multiple Antennas Over
	Dynamic Channel Environment
CT258	Performance Analysis of SM-Index Modulation Based Cooperative Wireless Communication
	System
CT229	Downlink Energy Efficiency Modeling and Optimization for Ultra Cellular HetNet
CT2040	Network Slicing Based Mobility Management for Software-Defined 5G Networks

## Session 7 | Oct. 9, 2018 /16:15–18:30, Jiehui Room, 3rd Floor < Network Resource Management and Optimization>

CT31	User Association for On-grid Energy Minimizing in HetNets with Hybrid Energy Supplies
CT37	DCI-Free based Downlink Prescheduling Scheme for Ultra-Reliable and LowLatency
	Communications
CT114	An Online Adaptive Modulation Scheme for Energy Harvesting Nodes Using Bayesian
	Decision Theory
CT230	A Scheme of Multi-Domain Cooperative Cost Resource Management in Outdoor+Indoor
	Het-Net
CT259	Towards Performance Optimization of Network Service Chains with Multi-Ingress and
	Single-Egress
CT285	An Optimal Resource Allocation Algorithm Based on Sum Rate Maximization for Uplink SCMA
	System
CT317	A Load Balance Routing Method with Escape Network for Network-on-Chip
CT344	Interference Analysis and Resource Allocation of Burst Scenario in Massive Machine-Type
	Communications
CT2002	Improved Data-aided Joint Carrier Frequency Offset and Time Offset Estimation Method for
	OFDM/OQAM System

# Session 8 | Oct. 9, 2018 /16:15–18:45, Zunhui Room, 3rd Floor < Wireless Communication and Transmission Technology>

CT30	Cost Effective Hash Chain Based Key Pre-Distribution Scheme for Wireless Sensor Network
CT160	Radio Classify Generative Adversarial Networks: A Semi-Supervised Method for Modulation
	Recognition
CT173	An Optimal Time Reversal Waveform Based on Sequential Convex Programming for Wireless
	Power Transmission
CT206	Dynamic Spectrum Assignment based on Quantum Harmony Search Algorithm for Cognitive
	Heterogeneous Wireless Networks
CT223	Sensor On/Off Based Polling Algorithm for Intelligent Transportation Wireless Sensor
	Networks
CT273	A Dynamic Packet Scheduling Method for Multipath TCP in Heterogeneous Wireless
	Networks
CT288	Wireless Device Identification Based on Improved Convolutional Neural Network Model
CT331	Adaptive Unequal Clustering Using an Improved LEACH Protocol with Energy Balance
CT371	A Heterogeneous SoC for SoftCast Wireless Video Transmission
CT372	Indoor Localization Design and Implementation Based on Software Defined Radio

# Session 9 | Oct. 9, 2018 /16:00–18:30, Fenghui Room, 3rd Floor < Network Security and Information Network>

CT08	Efficient Detection of Phishing Attacks with Hybrid Neural Networks
CT39	A Software-defined Intranet Dynamic Defense System
CT86	Items Selection Strategy of Cyber Security CD-CAT Based on Collaborative Filtering
CT112	Framework of Raising Cyber Security Awareness
CT117	Network Intrusion Detection Based on Kernel Principal Component Analysis and Extreme Learning Machine
CT138	Cyber Security Knowledge Graph based Cyber Attack Attribution Framework for Space-ground Integration Information Network
CT234	Detecting Hidden User Behavior for Network Data Stream
CT253	A New Timing Steganography Algorithm in Real-Time Transmission Devices
CT274	Towards Multi-Factor Mutual Authentication with Privacy Protection in Opportunistic Networks

#### PRESENTATION QUICK VIEW

CT2037 Study on a Decision Method for Reconfiguration of Network Security Functions Based on Privilege Transition Graph

## Session 10 | Oct. 9, 2018 /16:15-18:30, Yinghui Room, 3rd Floor < Coding Theory and Technology>

CT113	Performance and Implementation of Enhanced Multi CRC-LSC Polar Codes
CT192	Physical-layer Network Coding for Two-Way Relaying with Partial Response CPM
CT203	Anti-burst PEG Algorithm for P-LDPC Codes with Short-to-medium Length
CT204	MIMO Radar Precoding Design with Practical Constraints: A Low-Complexity Approach
CT319	A Low-Complexity Decoder for Turbo Product Codes Based on Extended Hamming Codes
CT338	Network Orchestrated Coding: A Practical Way to Excavate the Network Transmission Capability
CT356	An Improved Variable-Node-Based BP Decoding Algorithm for NAND Flash Memory
CT368	Energy-Efficient Network Coding Scheme for Two-Way Relay Visible Light Communications
CT373	An Algebraic Construction of Quasi-Cyclic LDPC Codes Based on the Conjugates of Primitive Elements over Finite Fields

#### Session 11 | Oct. 10, 2018 /13:30–16:15, Jiehui Room, 3rd Floor < Communication and Information System >

CT99	NLOS Detection and Mitigation for UWB/IMU Fusion System based on EKF and CIR
CT111	Low Power Design of Handheld Terminal of Independent and Controllable Satellite Mobile
	Communication
CT164	On the Performance of Multiuser CDMA System using Separate Channel Streams
CT180	Doppler Compensation of Underwater Acoustic OFDM Based on Parallel Search in Time and Frequency Domain and FPGA Implementation
CT187	Atmospheric Absorption Loss Estimation of Terahertz Wave Band Satellite Ground Detection
CT191	Modulation Analysis for Long Distance Underwater VLC Systems Under Dead Time Limit
CT293	Uplink Pilot-to-Data Power Ratio Design Based onUser Joint Optimization Algorithm in Multi-cellMassive MIMO System
CT298	A Real-Time Distributed Algorithm for Satellite Constellation Routing
CT315	Uplink Asynchronous Fractional Pilots Scheduling in Massive MIMO System
CT366	Inter-layer Topology Design for IGSO/MEO Double-Layered Satellite Network with the
CT2008	Consideration of Beam Coverage Agglomerative Group Scheduling for MmWave Massive MIMO under Hybrid Beamforming Architecture

# Session 12 | Oct. 10, 2018 /13:30–15:50, Zunhui Room, 3rd Floor < IOV Communication and System>

Invited	Communication, Caching and Computing for Internet of Vehicles
Talk	
CT74	Review of TDMA-Based MAC Protocols for Vehicular Ad Hoc Networks
CT115	Vehicular Clustering: Fog Paradigm and Recent Advances
CT122	A Novel Clustering Algorithm Based on Mobility for VANET
CT282	Analysis of Traffic Status using On-line Traffic Maps and Real-time Information of Parking
	Spaces
CT284	A Generalized Multi-Stage P-Persistent MAC Protocol for V2V Communications
CT385	An Effective Selection Method For Vehicle Alternative Route Under Traffic Congestion
CT1002	Real-time evaluation method for road service level based on traffic model driven

# Session 13 | Oct. 10, 2018 /13:30-16:15, Fenghui Room, 3rd Floor < Optical Communication and Antenna Design>

Invited Talk	Fiber-optic microsensing based on dispersive interferences
CT24	Free-space Synchronization with Sub-nanosecond Resolution Using Atmospheric Optical Time Transfer
CT178	On Polarization Matching Algorithm of VICTS Antenna
CT256	Power Allocation of Non-Orthogonal Multiple Access with Variable On-off KeyingDimming Control in Visible Light Communication Networks
CT301	A Novel Design of Miniaturized Butler Matrix
CT308	Enhanced Performance of Indoor Cooperative IHDAF Protocol based SM VLC System
CT322	Simulation and Experimental Research of Transmission Characteristics of Multi-Modal OAM Antenna Array Based on Vortex Electromagnetic Wave
СТ369	Resource Allocation Based on Dynamic User Priority for Indoor Visible Light Communication Ultra-Dense Networks
CT370	Measurement-based Massive MIMO Antenna Selection in Indoor Office Scenario at 3.52 GHz
CT2057	Influence of channel error on nulling antenna's anti-jamming performance

#### Session 14 | Oct. 10, 2018 /13:30-16:00, Yinghui Room, 3rd Floor < Computer Vision and Image Processing>

Image Denoising Algorithm Based on Improved Wavelet Threshold Function and Median
Filter
Metric Learning Algorithm Based on Weighted Pairwise Constrained Component Analysis for
Person Re-identification
Random permutation-based block compressed sensing for image
Encryption-then-Compression applications
Filtered Image Forensics Based on Frequency Domain Features
Spatial Image Steganalysis based on ResNeXt
P-FDCN based Eye State Analysis for Fatigue Detection
Amharic Character Image Recognition
Weakly Supervised Learning of Object-Part Attention Model for Fine-grained Image
Classification
Exploiting class hierarchies for large-scale scene classification using hybrid discriminative
approach
Prediction of Human Body Motion from Video Sequences

# Session 15 | Oct. 10, 2018 /16:30-17:45, Jiehui Room, 3rd Floor < Electronics and Communication Engineering>

CT34	Improved Amplitude Control Technique of Low Phase Noise LC VCO
CT109	LayerOS: Scheduling Apps between the Local System and the Cloud to Extend Scalability of
	Wearable Devices
CT224	Design and Analysis of an Ultra-wideband Frequency Selective Surface with Adjustable
	Stopband
CT294	Power Amplifier Behavioral Model Dimension Pruning Using Sparse Principal Component
	Analysis
CT333	Simulation and Analysis of Cylinder-Conformed and Sphere-conformed FSS

## Session 16 | Oct. 10, 2018 /16:00–17:45, Zunhui Room, 3rd Floor < Communication Equipment Performance Testing and Optimization>

CT10	A Comparison of PCA based Imaging Methods for the Multireceiver SAS
CT124	A General Method for Accelerating the Kasumi Algorithm on Intel Processors
CT179	Survey of Cycle Slip Detection and Correction Techniques for Single Frequency Receivers
CT197	A Novel Skywave Over-the-horizon Transmission Scheme of Remote Island Reef Environment Monitoring Based on Wide-area Collaborative Reception
CT205	A 3D Placement of Unmanned Aerial Vehicle Base Station based on Multi-Population Genetic Algorithm for Maximizing Users with Different QoS Requirements
CT260	Adaptive Energy Management in Mobile Devices using Heterogenous Energy Storage Units
CT325	Energy Scheduling in Mobile Device using Heterogeneous Batteries

# Session 17 | Oct. 10, 2018 /16:30–18:15, Fenghui Room, 3rd Floor < Network Architecture Design and Calculation >

CT20	A Network Selection Algorithm based on Improved Genetic Algorithm
CT100	Demonstration of vCDN Scheme Based on Multi-Access Edge Computing and 5G Virtualization
CT140	Association Analysis Algorithm based on Knowledge Graph for Space-Ground Integrated Network
CT264	Power-Delay Tradeoff in Mobile-Edge Computation Offloading with Heterogeneous Applications
CT265	Distributed Computation Framework For Circuit Evolutionary Design Under CS Network Architecture
CT272	Understanding and Modeling of the Real Application Traffic Characteristics for Fast on-chip Network Evaluation
CT303	A SDN-based Hybrid Electrical Optical Architecture

# Session 18 | Oct. 10, 2018 /16:15-18:15, Yinghui Room, 3rd Floor < Electronic Information Technology and Engineering Applications>

CT227	Characteristics research on cross-media interaction and transmission of ultrashort pulse			
	laser			
CT131	A Method Based on Frequent Pattern Mining to Predict Spectral Availability of HF			
CT150	Increasing the Accuracy of Approximate Adders With Very Low Extra Complexity			
CT177	Research on the RCS of Serrate Gap in Real Aircraft State			
CT270	Person Tracking and Frontal Face Capture with UAV			
CT218	A Short Term Load Periodic Prediction Model Based on GBDT			
CT219	An Improved Reservoir Sampling Algorithm for Unbalanced Power Data			
CT171	Boundary Protection System Based on Software-defined Networking			

## - Poster Presentation -

# Poster Session 1 | Oct. 9, 2018 /16:00-16:30, 3rd Floor < Digital Communication and Wireless Transmission >

CT35	Design and Formal Verification of a VANET Lightweight Authentication Protocol
CT42	The Adaptive Communication Network Architecture of Unmanned Aerial Vehicles
CT69	Survey of Ad-Hoc Network Technology for UAV
CT167	Research and Development of Customized Wireless Device Based on the Multimode Chip for Energy Internet Applications
CT188	Vertical Handoff Decision Algorithm for Heterogeneous Wireless Networks Based on Entropy and Improved TOPSIS
CT208	A Maritime Radio Communication System Based on GNU Radio_HackRF Platform and GMSK Modulation
CT225	Inertial Aided Cycle Slip Detection and Repair for Integrated Ground-based High-precision Local Positioning System/INS system
CT244	A Microwave Interference Cancellation System Based on Down-conversion Adaptive Control
CT248	Sustainable Clustering for Energy Harvesting Sensor Networks
CT255	A Novel Integrated Waveform for the Radar-Communication Integration System
CT271	Ranking-based Collaborative Clustering for Heterogeneous Information Network
CT305	Research and Experimental Demonstration of UDWDM Transmission andWavelength Conversion for Optical Satellite Communication Based on OFC
CT310	A New Target Localization Method for Monostatic MIMO Radar Based on PARAFAC Model
CT324	An Adaptive OFDM Modulation Method for Middle Voltage Power Line Communication
CT341	A Refined Phase Estimation Based Parallel Carrier Recovery Algorithm in High Speed Wireless Communication System
CT346	Anti-eavesdropping and Anti-jamming Game Learning in D2D Underlay Cellular Networks: Multi-agents Are Skin in the Game
CT354	A Reinforcement Learning Approach for Dynamic Spectrum Anti-jamming in Fading Environment
CT360	Efficient Channel Estimation Algorithm for Two-way MIMO Relay Systems
CT365	Lyapunov Optimization based Energy Efficient Congestion Control for MPTCP in HetNets
CT2055	315Mbps Internet of Vehicle Communication System Using Car Head Lamp Basedon Weighted Pre-distortion

# Poster Session 2 | Oct. 10, 2018 /11:30-12:00, 3rd Floor < Electronic Communication and Signal Processing>

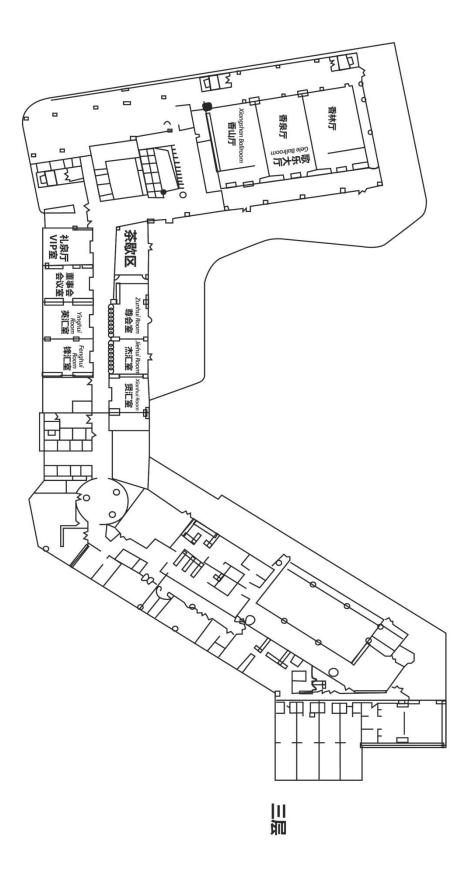
CT76	A Reference Buffer with High-efficiency for High-speed and High-precision Switched-capacitor ADCs
CT90	An Advanced Frequency Correction Algorithm based on Energy Center Fusion
CT91	Hellinger Distance Based Conditional Variational Auto-Encoder And Its Application in Raw Audio Generation
CT96	A ML-based Direct Localization Method for Multiple Sources with Moving Arrays
CT125	A Novel Dual-Band Magneto-Electric Dipole End-Fire Antenna
CT189	Identification of Jamming Factors in Electronic Information System Based on Deep Learning
CT214	Energy Efficiency Analysis of Cache-enable Small-Cell Interference Networks under Different Caching Placement Strategies
CT240	Security of Relay Wiretap Networks with Energy Harvesting
CT306	Hybrid Acoustic, Wireless Optical and Fiber-optic Underwater Cellular Mobile Communication Networks
CT307	Machine Fault Diagnosis Using IIoT, IWSNs, HHT, and SVM
CT316	A Broadband Circularly Polarized Substrate Integrated Antenna with Dual Magnetoelectric

### PRESENTATION QUICK VIEW

	Dipoles Coupled by Crossing Elliptical Slots
CT323	Two-layer Resource-Balanced Backbone Communication Network Modeling for Power
	Protection Services
CT334	Wideband Co-site Interference Cancellation Based on Single-tap Structure
CT357	Model Based Interaction Hazards Analysis of Integrated Modular Avionics System
CT362	A bias-reduced method for TDOA localization with receiver position errors
CT377	A Miniaturized Helical LTCC Bandpass Filter with Helix Resonator Structure
CT2038	An Composite Loaded UWB Miniaturized Disc Cone Antenna
CT2051	Mixing Matrix Estimation in Underdetermined Blind Source Separation Based on Objective Function and Artificial Bee Colony Algorithm

# Poster Session 3 | Oct. 10, 2018 /16:00-16:30, 3rd Floor < Computer Network and Signal Processing >

CT130	Quantitative Analysis of Network Address Randomization's Security Effectiveness
CT143	Accurate Specified-pedestrian Tracking from Unmanned Aerial Vehicles
CT161	Fast Projection-free algorithm for Distributed Online Learning in Networks
CT195	An Analysis of the Behavior of APT Attack in the Ngay Campaign
CT201	A Novel Architecture of Scheduling System for Big Data Framework
CT210	Sidelobe Reduction for UWB Radar Images Based on Spatial Spectrum Segmentation
CT212	A Smart Reference Management System with Association Analysis Using Social Networking Apporach
CT213	Predicting Anchor Links Based On A Supervised Iterative Framework With Strict Stable Matching
CT215	Combining Gaussian Mixture Model and HSV Model with Deep Convolution Neural Network for
CT231	Detecting Smoke in Videos A Numerical Integral Algorithm Based on the CAPSO to Improve the Estimation for the Parameters of the Homodyned-K Distribution
CT238	A New Designed Flexible Circular Polarization Selective Surface Based on Printed Graphene on Paper
CT266	TMVM: Truncated Majority Voting Method to Discriminate and Reduce Mismatches for Local Matching Approaches
CT277	Survivable Mapping for Dynamic Service Function Chains in Telecom Networks
CT313	Sub-Pixel Defect Detection for Super Large LCD Images Using Quadrant Gradient Operator
CT352	An Efficient Hardware LDPC Encoder Based on Partial Parallel Structure for CCSDS
CT2026	Accurate Oracle Classification Based on Deep Convolutional Neural Network
CT2028	Signalling Overhead analysis of small data transmission for Machine Type Communication
CT2053	Mixing Matrix Estimation in Underdetermined Blind Source Separation Based on Single Source Points Detection



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