## 2017 International Conference on Networking and Network Applications

(NaNA 2017)



# **Conference** Program

### October 16-19, 2017

Soaltee Crowne Plaza, Kathmandu, Nepal

### **Technical Sponsors**

Xidian University, China Future University Hakodate, Japan Kathmandu Engineering College (KEC), Nepal Wakkanai Hokusei Gokuen University,Japan

### **Conference Schedule**

| Date       | Time        | Conference Program  |  |
|------------|-------------|---|--|
| 2017-10-16 | 08:00-18:00 | Registration at the hall of the Hotel Soaltee Crowne Plaza<br>Kathmandu |  |
|            | 09:00-09:15 | Welcome Speech (Hirendra Man Pradhan)                                   |  |
|            | 09:15-09:30 | Opening Remarks (Norio Shiratori)                                       |  |
|            | 09:30-10:15 | Keynote Speech 1 (Achille Pattavina)                                    |  |
|            | 10:15-10:30 | Coffee break  |  |
|            | 10:30-11:15 | Keynote Speech 2 (Pin-Han Ho)   |  |
| 2017-10-17 | 11:15-12:00 | Keynote Speech 3 (Zhou-guo Chen)  |  |
|            | 12:00-13:20 | Lunch   |  |
|            | 13:20-15:50 | Session A1  |  |
|            | 15:50-16:10 | Coffee break  |  |
|            | 16:10-17:55 | Session A2  |  |
|            | 18:00-20:00 | Gala  |  |
|            | 08:30-09:45 | Session A3  |  |
|            | 09:45-10:00 | Coffee break  |  |
|            | 10:00-11:50 | Session A4  |  |
| 2017 10 10 | 12:00-13:20 | Lunch   |  |
| 2017-10-18 | 13:20-14:00 | Session B   |  |
|            | 14:00-15:25 | Session C   |  |
|            | 15:25-15:40 | Coffee break  |  |
|            | 15:40-17:55 | Session D1  |  |
|            | 08:30-09:50 | Session D2  |  |
|            | 09:50-10:05 | Coffee break  |  |
|            | 10:05-10:35 | Session D3  |  |
| 2017-10-19 | 10:40-11:10 | Closing Remarks   |  |
|            | 11:10-11:50 | Free discussion   |  |
|            | 14:00-16:00 | TPC Meeting   |  |

Malhar Hall: Opening/Keynote Speech/Gala, Sessions A, B, C, D

### **Greeting Message from General Conference Chairs**

Welcome to 2017 International Conference on Networking and Network Applications (NaNA2017)! Welcome to Kathmandu, Nepal! We believe that the solid conference program and the amazing city of Kathmandu will offer you irresistible attraction.

The NaNA2017 is technically sponsored by Future University Hakodate, Japan, Xidian University, China, Kathmandu Engineering College, Nepal, and Wakkanai Hokusei Gakuen University, Japan. At this very moment, we would like to thank the program committees and the organizing staffs for their hard work. We would like to deliver our appreciation to the keynote speakers for their great contributions to this conference.

This conference aims to gather researchers from different areas and disciplines to present results and participate in discussions under the common themes of Wireless Networks, Wired Networks and Data Center (DC) Networks, Network Management, Monitoring, and Automation, and Network Applications. It is expected that the interactions provided by the conference will facilitate a better understanding of the diversity of the different approaches as well as of their similarities. In addition, it will open the way for applying approaches that have been successful in one area to problem solving in other different areas and applications.

We wish you will enjoy the successful deliberations, stimulating discussions and new friendships the conference can offer. We look forward to seeing all of you in Kathmandu, Nepal.

NaNA 2017 General Co-Chairs

Hirendra Man Pradhan, Kathmandu Engineering College, Nepal Achille Pattavina, Politecnico di Milano, Italy Yuefeng Ji, Beijing University of Posts and Telecommunications, China

Oct. 16, 2017

### Committees

#### **CONFERENCE ORGANIZERS:**

Honorary General Chair: Prof. Norio Shiratori, Waseda University /Tohoku University, Japan, IEEE Life Fellow

#### **General Co-Chairs:**

Hirendra Man Pradhan, Kathmandu Engineering College, Nepal Achille Pattavina, Politecnico di Milano, Italy, IEEE Senior Member Yuefeng Ji, Beijing University of Posts and Telecommunications, China

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#### Local Arrangement Chairs:

Bo Liu, Future University Hakodate, Japan Yang Xu, Xidian University, China

#### Track Co-Chairs:

#### **Track 1: Wireless Networks**

Gabriel-Miro Muntean, Dublin City University, Ireland. Changqiao Xu, Beijing University of Posts and Telecommunications, China, IEEE Senior Member Chia-Ho Ou, National Pingtung University, Taiwan, IEEE Member Chi Zhang, University of Science and Technology of China, China, IEEE Member

#### Track 2: Optical Networks and Data Center (DC) Networks

János Tapolcai, Budapest University of Technology and Economics, Hungary Bin Wu, Tianjin University, China Aleksandra Smiljanic, Belgrade University, Serbia Massimo Tornatore, Politecnico di Milano, Italy, IEEE Senior Member

#### Track 3: Network Management, Monitoring and Automation

Dinesh Sharma, Kathmandu Engineering College, Nepal Chau-Yun Hsu, Tatung University, Taiwan Weidong Yang, Henan University of Technology, China Dong Zheng, Xian University of Posts & Telecommunications, China

#### **Track 4: Network Applications**

Xiaojiang Chen, Northwest University, China Masaru Fukushi, Yamaguchi University, Japan, IEEE Computer Society, Member Anyi Chen, Tatung Research Institute, Taiwan Ruonan Zhang, Northwestern Polytechnical University, China, IEEE Member

#### **Steering Chairs:**

Pin-Han Ho, University of Waterloo, Canada Xiaohong Jiang, Future University Hakodate, Japan, IEEE Senior Member Yulong Shen, Xidian University, China

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Nirwan Ansari, New Jersey Institute of Technology, USA Han-Chieh Chao, Dong Hwa University, Hualien, Taiwan Xinbing Wang, Shanghai Jiao Tong University, China Yunhao Liu, Tshinghua University, China Tarik Taleb, Aalto University, Finland Jianwei Huang, The Chinese University of Hong Kong Ben Liang, University of Toronto, Canada

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#### **Keynote Speech 1:**

#### RAN centralization in 5G Metro/Aggregation Networks-Challenges and Trade-offs

Prof. Achille Pattavina Politecnico di Milano, Italy



**Abstract:** 5G mobile networks are expected to meet a set of extremely - challenging performance requirements, in terms of enhanced throughput and QoS, increased coverage, reduced latency and power consumption. To meet such requirements, a promising solution for future 5G networks is the recently proposed Centralized - Radio Access Network (C - RAN), supported by optical aggregation based on Wavelength Division Multiplexing. C - RAN is expected to provide significant CapEx/OpEx savings, deriving from the consolidation of processing facilities among different Digital Units (DU). However, the adoption of C - RAN requires transporting large amount of high and constant - bit - rate traffic between DUs and Radio Units (RU), called the fronthaul traffic. Therefore, in view of the massive small cells deployment and traffic increase envisioned for 5G, fronthaul transport is expected to face serious scalability issues. Thus, alternative RAN splits, referred to as xhaul or midhaul solutions, are now under analysis to reduce the required network capacity. C - RAN also enables effective support of advanced cell coordination techniques, so that further trade - offs arise between factors characterizing the cell clusters. We examine these challenges and propose technical solutions to best match the different parameters trade - offs arising in 5G metro/aggregation networks.

**CV:** Achille Pattavina received the Dr. Eng. degree in Electronic Engineering from University of Rome (Italy) in 1977. He was with the same University until 1991, when he moved to "Politecnico di Milano", Milano (Italy), where he is Full Professor since 1995. He has been author/coauthor of more than 300 papers in the area of communications systems and networks and of two books: Switching Theory, Architectures and Performance in Broadband ATM Networks (New York: Wiley, 1998), Communication Network: Networking and Internet (McGraw-Hill, 2nd ed., 2007, in Italian). He has been coordinator of national and international research activities, including European Union funded projects. He has been Editor for Switching Architecture Performance of the IEEE Transactions on Communications from 1994 to 2011 and Editor-in-Chief of the Wiley European Transactions on Telecommunications from 2001 to 2010. His current research interests are in the areas of data center and cloud computing, software defined networking, optical networks, switching theory, broadband convergent access/metro networks.

#### **Keynote Speech 2:**

#### **Coded Video Multicast over Mobile Systems**

Prof. Pin-Han Ho

University of Waterloo , Waterloo Department of Electrical & Computer Engineering



**Abstract**: The talk is on multicast of video content in the modern mobile communication systems. The topics include the multicast techniques developed for scalable and efficient delivery of successively refined information to multiple recipients under fluctuating wireless channels. It also covers the key issues and state-of-the-art progress of such an application and discusses its performance behaviors.

**CV**: Pin-Han Ho received his B.Sc. and M.Sc. degree from the Electrical Engineering department in National Taiwan University in 1993 and 1995, respectively, and Ph.D. degree from Queens University at Kingston at 2002. He is now an associate professor in the department of Electrical and Computer Engineering, University of Waterloo, Canada. Professor Pin-Han Ho is the author/ co-author of more than 150 refereed technical papers, several book chapters, and the co-author of a book on optical networking and survivability. His current research interests cover a wide range of topics in broadband wired and wireless communication networks, including survivable network design, wireless Metropolitan Area Networks such as IEEE 802.16 networks, Fiber-Wireless (FIWI) network integration, and network security. He is the recipient of Distinguished Research Excellent Award in the ECE department of U of Waterloo, Early Researcher Award (Premier Research Excellence Award) in 2005, the Best Paper Award in SPECTS'02, ICC'05 Optical Networking Symposium, and ICC'07 Security and Wireless Communications symposium, and the Outstanding Paper Award in HPSR'02.

#### **Keynote Speech 3:**

#### Network threat intelligence based on Dark web

Dr. Zhou-guo Chen

Technical Director, China Electronics Technology Cyber Security Co., LTD



**Abstract**: The dark web is the World Wide Web content that exists on dark nets, overlay networks which use the Internet but require specific software, configurations or authorization to access. Due to some strong confidentiality, anonymity and other security characteristics, dark web have been widely used in recent years. More and more network users and service providers choose dark web to protect their privacy. However, dark web also becomes a safe haven for criminals who engaged in illegal transactions and network attacks, and poses a threat to cyberspace security.

At present, many countries and institutions around the world focus on dark web, especially in terms of the illegal trading and information intelligence. The information intelligence in this respect can serve an important source of perceiving network security situation and threat warning. In order to explore and acquire the information resources from dark web, it is necessary to study the technical problems such as network monitoring and information censorship in dark web. It can realize the threat intelligence perception through finding and identifying information, detecting hidden service as well as information extraction and analysis in dark web.

**CV**: Zhou-guo Chen was born in 1980. He received a M.S. degree in signal and information processing at University of Electronic Science and Technology of China (UESTC) in 2006. As a technical director with China Electronics Technology Cyber Security Co., LTD, he led several research teams to participate in several state-level major information security projects under the National Development and Reform Commission, the Ministry of Science and Technology, the Ministry of Public Security. He has won Second-Class National Scientific and Technological Progress Award, published more than 50 academic papers and owned more than 10 patents. His research interests include network security, big data and network forensics.

### **Opening Remarks and Keynotes**

| 2017-10-17 9:00-12:00 |                                       |             |                      |  |
|-----------------------|---------------------------------------|-------------|----------------------|--|
| Time                  | Conference Program                    | Spokesman   | Chairman             |  |
| 09:00-09:15           | Welcome Speech (Hirendra Man Pradhan) | 09:00-09:15 |                      |  |
| 09:15-09:30           | Opening Remarks (Norio Shiratori)     | 09:15-09:30 |                      |  |
| 09:30-10:15           | Keynote Speech 1 (Achille Pattavina)  | 09:30-10:15 | Hirendra Man Pradhan |  |
| 10:15-10:30           | Coffee break                          | 10:15-10:30 |                      |  |
| 10:30-11:15           | Keynote Speech 2 (Pin-Han Ho)         | 10:30-11:15 | Xiaohong Jaing       |  |
| 11:15-12:00           | Keynote Speech 3 (Zhou-guo Chen)      | 11:15-12:00 | Yuefeng Ji           |  |

### (2017-10-17, Malhar Hall)

### **Track 1: Wireless Networks**

#### 2017-10-17 13:20-17:55 Malhar Hall

|    | Session A1 Chair: Jianfeng Ma |   |  |         |
|----|-------------------------------|---|--|---------|
| ID | Time                          | Title   | Author   | Туре    |
| 3  | 13:20-13:35                   | Efficient (k,n) Secret Sharing Scheme Secure<br>Against k-2 Cheaters  | Lei Zhu, Yanxiao Liu, Yichuan<br>Wang, Wenjiang Ji, Xinhong<br>Hei, Quanzhu Yao and Xiaoyan<br>Zhu | Regular |
| 8  | 13:35-13:50                   | PVad: Privacy-Preserving Verification for Secure<br>Routing in Ad Hoc Networks  | Teng Li, Jianfeng Ma, Cong<br>Sun, Dawei Wei and Ning Xi   | Regular |
| 10 | 13:50-14:05                   | PADA: Privacy-Aware Data Aggregation with<br>Efficient Communication for Power Injection in<br>5G Smart Grid Slice          | Yinghui Zhang, Dong Zheng,<br>Qinglan Zhao, Chengzhe Lai<br>and Fang Ren                           | Regular |
| 17 | 14:05-14:20                   | A Novel Recommendation Model Based on Trust<br>Relations and Item Ratings in Social Networks                                | Haokai Song, Qingqi Pei, Yang<br>Xiao, Zi Li and Yong Wang   | Regular |
| 25 | 14:20-14:35                   | Preserving friendly-correlation in uncertain graphs using differential privacy  | Jing Hu, Wuchao Shi, Hai Liu,<br>Jun Yan, Yuan Tian and<br>Zhenqiang Wu                            | Regular |
| 26 | 14:35-14:50                   | Physical Layer Authentication and Identification<br>in Wireless Network via the Locations of<br>Surrounding Noise Sources   | Yongchao Dang, Yin Chen,<br>Huihui Wu, Yulong Shen and<br>Xiaohong Jiang                           | Regular |
| 27 | 14:50-15:05                   | Efficient ONU Migration for Fixed and Mobile<br>Convergence Access Network in High-speed Rail<br>Area                       | Rentao Gu, Shizong Zhang,<br>Zidi Yan and Yuefeng Ji   | Regular |
| 29 | 15:05-15:20                   | Limits of Covert Communication on Two-Hop<br>AWGN Channels  | Huihui Wu, Xuening Liao,<br>Yongchao Dang, Yulong Shen<br>and Xiaohong Jiang                       | Regular |
| 35 | 15:20-15:35                   | Secure Transmission With Limited Feedback in MISOME Wiretap Channels  | Jiao Quan, Xiaochen Li, Yeqiu<br>Xiao, Yulong Shen and<br>Fenghua Li                               | Regular |
| 36 | 15:35-15:50                   | An Improved Amorphous Algorithm in Wireless<br>Sensor Network Based On Approximate<br>Equilateral Triangle Beacon Selection | Shikai Shen, Kaiguo Qian, Bin<br>Yang, Yumei She, Wu Wang<br>and Yujian Wang                       | Regular |
|    | 15:50-16:10                   | Coffee Br   | eak  |         |
|    |                               | Session A2 Chair: Di Lu   |  |         |
| 80 | 16:10-16:25                   | Techno-Economic Evaluation of CDN<br>Deployments in Metropolitan Area Networks  | Omran Ayoub, Francesco<br>Musumeci, Massimo Tornatore<br>and Achille Pattavina                     | Regular |

| 42 | 16:25-16:40 | BF-PDT: A New Name Lookup Mechanism in<br>Content-Centric Networking                             | Hao Hao, Changqiao Xu,<br>Shujie Yang, Jianfeng Guan,<br>Yang Liu and Lujie Zhong | Regular |
|----|-------------|--|---|---------|
| 44 | 16:40-16:55 | A Novel Scheme for Phase Noise Compensation<br>in CO-OFDM Long-Reach Passive Optical<br>Networks | Mohamed Ben Zeglam, Pin<br>Han Ho, Limei Peng and<br>Shuiping Jie                 | Regular |
| 48 | 16:55-17:10 | Resource Allocation for Throughput<br>Optimization in Buffer-Limited Mobile Ad Hoc<br>Networks   | Jia Liu, Yang Xu, Ruo Ando,<br>Hiroki Takakura and Yifei Xu                       | Regular |
| 59 | 17:10-17:25 | End-to-end Congestion Relief Routing Protocol<br>for Ad Hoc Networks                             | Yang Xu, Jia Liu, Ruo Ando<br>and Norio Shiratori                                 | Regular |
| 61 | 17:25-17:40 | Secure and Efficient V2V Communications for<br>Hetergeneous Vehicle Ad Hoc Networks              | Yanping Li, Yanjiao Qi,<br>Laifeng Lu   | Regular |
| 62 | 17:40-17:55 | Multicast Delivery Delay in General Two-Hop<br>Relay MANETs                                      | Bin Yang, Zhenqiang Wu,<br>Yulong Shen and Yuanyuan<br>Fan                        | Regular |

#### 2017-10-18 8:30-11:50 Malhar Hall

#### Session A3 Chair: Yue Zhao

| 63                           | 08:30-08:45 | An Empirical Study of Unsolicited Content<br>Injection into a Website   | Fu Jianming, Xie Mengfei,<br>Wang Yingjun and Mei<br>Xufen                      | Regular      |
|------------------------------|-------------|---|---|--------------|
| 65                           | 08:45-09:00 | Hierarchical CSI-Fingerprints Classification for<br>Passive Multi-Person Localization                         | Runcong Ma, Gwo-Jong Yu,<br>Guilin Chen, Shenghui Zhao<br>and Bin Yang          | Regular      |
| 69                           | 09:00-09:15 | A flexible Frame-oriented Host-FPGA<br>Communication Framework for Software-defined<br>Wireless Network       | Jun liu, Zhiwei Li, Boyan<br>Ding, Haoyang Wu and Tao<br>Wang                   | Regular      |
| 73                           | 09:15-09:30 | Genomic Privacy Preserving Framework for<br>High-Order SNPs Linkage Disequilibrium on<br>Correlated Sequences | Hai Liu, Zhenqiang Wu,<br>Changgen Peng and Xiujuan<br>Lei                      | Regular      |
| 85                           | 09:30-09:45 | SpectralEfficiency,DiversityGainandMultiplexingCapacityAnalysisforMassiveMIMO, 5GCommunicationsSystem         | khem Narayan poudel and shankar Gangaju   | Regular      |
|                              | 09:45-10:00 | Coffee Break  |   |              |
| Session A4 Chair: Qingqi Pei |             |   |   |              |
| 2                            | 10:00-10:10 | Development of a Hybrid FSO/RF System<br>During Link Misalignment   | Kappala Vinod Kiran, Shikh<br>Rathore, Ashok Kumar Turu<br>and Santos Kumar Das | a<br>k Short |
| 13                           | 10:10-10:20 | Application Oriented Sensor Database System   | Gsr Satyanarayana, Debark   | a Short      |

|    |             |  | Chakraborty and Santos Kumar  |       |
|----|-------------|--|-------------------------------|-------|
|    |             |  | Das                           |       |
| 21 | 10.20-10.30 | A Privacy Measurement Method Using Network     | Wuchao Shi, Jing Hu, Jun Yan, | Short |
|    | 10.20 10.50 | Entropy  | Zhenqiang Wu and Laifeng Lu   | Short |
|    |             | Reliability Analysis of Molecular              | Xinlei Wang, Zhenqiang Wu,    |       |
| 40 | 10:30-10:40 | Communication Based on Drift Diffusion         | Jiawang Chen, Xuanwen Hao     | Short |
|    |             |  | and Bo Liu                    |       |
|    |             | A Secure Authentication Method of Intelligent  | Shuangyuan Qiao, Yong Zeng,   |       |
| 49 | 10:40-10:50 | Terminals Based on Jensen-Shannon Divergence   | Lingjie Zhou, Zhihong Liu and | Short |
|    |             |  | Jianfeng Ma                   |       |
|    |             | Delay and Capacity in Three-Dimensional        | Wu Wang, Bin Yang, Shikai     |       |
| 60 | 10:50-11:00 | Mobile Ad Hoc Networks with Packet             | Shen, Yujian Wang and Gang    | Short |
|    |             | Replication                                    | Fang                          |       |
|    |             | TSMWD:A High-speed Malicious Web Page          | Zhengqi Wang, Xiaobing        |       |
| 66 | 11:00-11:10 | Detection System Based on Two-Step Classifiers | Feng ,Yukun Niu , Chi Zhang   | Short |
|    |             | ······   | and Jue Su                    |       |
| 70 | 11:10-11:20 | An Enhanced Soft Combination Algorithm Based   | Jingcheng Miao and Xiao Ou    | Short |
|    |             | on CUSUM for Cooperative Spectrum Sensing      | Song                          |       |
|    |             | LTE NETWORK : COVERAGE AND                     | Sujeet Kumar Jha, Rupa        |       |
| 75 | 11:20-11:30 | CAPACITY PLANNING 4G cellular Network          | Rokaya, Amit Bhagat, Ahmed    | Short |
|    |             | planning around Banepa                         | Raja Khan and Laxman Aryal    |       |
|    |             | WIRELESS MONITORING OF                         | Rahul Kumar Sah, Sushant      |       |
| 76 | 11:30-11:40 | PHOTOVOLTAIC PANELS                            | Ghising, Saurab Dulal ,Manish | Short |
|    |             |  | Karn and Suresh Sah           |       |
|    |             | Uncertain Graph method based on Triadic        | Jun Yan, Lin Zhang,Wuchao     |       |
| 79 | 11:40-11:50 | Closure Improving Privacy Preserving in Social | Shi, Jing Hu and Zhenqiang    | Short |
|    |             | Network  | Wu                            |       |

### Track 2: Wired Networks and Data Center (DC) Networks

|    |             | 2017-10-18 13:20-14:00 Ma   | lhar Hall                                   |         |
|----|-------------|---|---|---------|
|    |             | Session B Chair: Dingyi I   | Fang  |         |
| ID | Time        | Title   | Author                                      | Туре    |
| 5  | 13:20-13:35 | An 802.11 MAC Optimization Mechanism<br>Based on Throughput Proportional Fairness In<br>Multi-rate WLAN | Mu Yan, Su Wu, Gang Feng and<br>Shuang Qin  | Regular |
| 51 | 13:35-13:50 | MSIPS:Multi-tiered Security IPs Architecture<br>for Secure SoC Design                                   | Huang Zhao and Quan Wang                    | Regular |
| 54 | 13:50-14:00 | A Security Routing Protocol for Internet of<br>Things Based on RPL                                      | Guojun Ma, Xing Li, Qingqi<br>Pei and Zi Li | Short   |

### Track 3: Network Management, Monitoring, and Automation

|    |             | 2017-10-18 14:00-15:25  | Malhar Hall   |         |
|----|-------------|---|---|---------|
|    |             | Session C Chair: Bishnu   | Prasad Gautam   |         |
| ID | Time        | Title   | Author  | Туре    |
| 1  | 14:00-14:15 | A Transmission Mechanism of the Backup<br>for Disaster Recovery in DCNs                             | Zhan Shi, Chenyue Wang, Qili Wen,<br>Wei Su, Huachun Zhou and Shuai<br>Gao                      | Regular |
| 11 | 14:15-14:30 | Backup Path Provisioning for Service<br>Protection Against Disaster Failures in<br>Telecom Networks | Xiaowu Du and Lisheng Ma  | Regular |
| 16 | 14:30-14:45 | 2-OptACO: An Improvement of Ant<br>Colony Optimization for UAV Path in<br>Disaster Rescue           | Xiang Ji, Qingyi Hua, Chunyu Li,<br>Junsong Tang, Anwen Wang,<br>Xiaojiang Chen and Dingyi Fang | Regular |
| 71 | 14:45-15:00 | Reputation Propagation for Web Service<br>Composition: A Shapley Value Approach                     | TaoZhang,YongzhiWang,Guangxia Li, Jingjing Guo and Qi Li  | Regular |
| 77 | 15:00-15:15 | A CCA-secure verifiable mix-net   | Longhai Li, Chengqiang Huang,and<br>Shaofeng Fu   | Regular |
| 56 | 15:15-15:25 | Performance Evaluation and Optimization for Android-based Web Server                                | Yajing Zhao, Jing Wang, Lei Zhang,<br>Jingyu Wang and Qi Qi                                     | Short   |

### **Track 4: Network Applications**

#### 2017-10-18 15:40-17:55 Malhar Hall

|    | 2017-10-16 15:40-17:55 Mailiar Hall |   |  |         |  |
|----|-------------------------------------|---|--|---------|--|
|    | Session D1 Chair: Jianming Zhu      |   |  |         |  |
| ID | Time                                | Title   | Author   | Туре    |  |
| 6  | 15:40-15:55                         | Joint Resource Scheduling for Mobile<br>Multimedia Services in Hierarchical Cloud<br>Networks                             | Mengjie Liu, Yatong Wang,<br>Jiang Zhou, Gang Feng and<br>Shuang Qin | Regular |  |
| 9  | 15:55-16:10                         | GA-based Load Balancing Algorithm for<br>Distributed Timing Task  | Yiming Guo, Yulong Wang, Lei<br>Zhang, Jingyu Wang and Qi Qi         | Regular |  |
| 14 | 16:10-16:25                         | The storage of virtual machine disk image in cloud computing: A survey  | Yuyan Zhao, Haibao Chen,<br>Shenghui Zhao and Yihong<br>Wang         | Regular |  |
| 18 | 16:25-16:40                         | A Novel Approach for Mining Road<br>Information from Low Precision GPS Data   | Siqie Zhang, Changle Li and<br>Xun Zhou                              | Regular |  |
| 19 | 16:40-16:55                         | GT-SGD: a Novel Gradient Synchronization<br>Algorithm in Training Distributed Recurrent<br>Neural Network Language Models | Xiaoci Zhang, Naijie<br>Gu, Robail Yasrab and Hong Ye                | Regular |  |
| 37 | 16:55-17:10                         | A Low-Storage-TTP and Abuse-Free Contract<br>Signing Protocol Based on the Schnorr<br>Signature                           | You Zhai, Guangquan Xu and<br>Yao Zhang                              | Regular |  |
| 38 | 17:10-17:25                         | Distributed Information Flow Verification on<br>Encrypted Data For Service Composition in<br>Multiple Clouds              | Ning Xi, Cong Sun, Di Lu and<br>Yulong Shen                          | Regular |  |
| 78 | 17:25-17:40                         | D2D Communication for Disaster Recovery<br>in Cellular Networks   | Gao Hui, Yulong Shen and<br>Bin Yang                                 | Regular |  |
| 86 | 17:40-17:55                         | Big Data Application for Nepalese<br>Government A Proposed Solution for Labor<br>Migrant                                  | Pratima Pradhan and Subarna<br>Shakya                                | Regular |  |
|    | 2017 10 10 08:20 10:25 Malbar Hall  |   |  |         |  |

#### 2017-10-19 08:30-10:35 Malhar Hall

#### Session D2 Chair: Jia Liu

| 68 | 08:30-08:45 | CryptSQLite: Protecting Data Confidentiality<br>of SQLite with Intel SGX               | Yongzhi Wang, Lingtong Liu,<br>Cuicui Su, Jiawen Ma, Lei<br>Wang, Yibo Yang, Yulong<br>Shen, Guangxia Li, Tao Zhang<br>and Xuewen Dong | Regular |
|----|-------------|--|--|---------|
| 74 | 08:45-09:00 | Trust-Aware Data Uploading Based on<br>Device-to-Device Communications                 | Xiaolan Liu, Bin Yang and Xiaohong Jiang   | Regular |
| 39 | 09:00-09:15 | A Novel Personalized Differential Privacy<br>Mechanism for Trajectory Data Publication | Feng Tian, Shuangyue Zhang,<br>Laifeng Lu, Hai Liu and   | Regular |

|    |             |  | Xiaolin Gui  |         |
|----|-------------|--|--|---------|
| 84 | 09:15-09:30 | A Survey of Multipath Transport Mechanism in Software Defined Network  | Kai Gao, Changqiao Xu,<br>Jianfeng Guan and Yang Liu     | Regular |
| 52 | 09:30-09:40 | Provoking the Adversary by Dual Detection<br>Techniques: A Game Theoretical Framework                        | Ahmed Salem, Xuening Liao,<br>Yulong Shen and Xiang Lu   | Short   |
| 53 | 09:40-9:50  | Cost Effective Accommodation Planning in a<br>Trip by Using Accomodation Advisor Query<br>(AA-Query) in STPF | Bishnu Prasad Gautam, Amit<br>Batajoo and Hiroyasu Asami | Short   |
|    | 9:50-10:05  | Coffee   | Break  |         |
|    |             | Session D3 Chair: Dinesh Sh  | arma   |         |
| 67 | 10:05-10:15 | A Survey on Big Data in Financial Sector   | Anku Jaiswal and Purushottam<br>Bagale                   | Short   |
| 72 | 10:15-10:25 | A Novel Multifactor Two-Server<br>Authentication Scheme under the Mobile<br>Cloud Computing                  | Ziyi Han, Li Yang and Qiang<br>Liu                       | Short   |
| 82 | 10:25-10:35 | Research on Power Allocation of Network<br>Coding in Vehicle Networking                                      | Jingjing Hu, Yancheng Ji,<br>Junma Li and Danfeng Dong   | Short   |

#### **Contact Us**

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