Proceedings

2019 International Conference on Networking and Network Applications

NaNA 2019

10 - 13 October 2019
Kyungpook National University, Daegu, South Korea

Technical Sponsors
Kyungpook National University, South Korea
Xidian University, China
Daegu Creative Economy Innovation Center, South Korea
Future University Hakodate, Japan
Wakkanai Hokusei Gakuen University, Japan

CPS
Conference Publishing Services

Conference Schedule

Date	Time	Conference Program	
2019-10-10	15:00-21:00	Registration at Kyungpook National University In front of rooms B101 & B102, IT5 building (Bld. No. 415), Kyungpook National University	
2019-10-11 Daegu Creative Economy Innovation Center , Daegu, South Korea	08:30-12:00	Registration at Daegu Creative Economy Innovation Center (대구창초경제혁신센터), Daegu, South Korea	
	09:00-09:15	Welcome Speech (Norio Shiratori)	
	09:15-09:30	Welcome Address (You-Ze Cho)	
	09:30-10:10	Keynote Speech 1 (Kijun Han)	
	10:10-10:30	Coffee break	
	10:30-11:10	Keynote Speech 2(Wanjiun Liao)	
	11:10-11:50	Keynote Speech 3(Hua Wang)	
	12:00-14:00	Lunch	
	14:00-15:40	Session A1(Room 1)	Session B1(Room 2)
	15:40-16:00	Coffee break	
	16:00-17:30	Session A2 (Room 1)	Session B2 (Room 2)
	18:00-20:00	Gala	
2019-10-12 Kyungpook National University, Daegu, South Korea	09:00-10:15	Session A3 (Room 342)	Session B3 (Room 345)
	10:15-10:35	Coffee break	
	10:35-11:50	Session A4 (Room 342)	Session B4 (Room 345)
	12:00-14:00	Lunch	
	14:00-15:40	Session A5 (Room 342)	Session B5 (Room 345)
	15:40-16:00	Coffee break	
	16:00-17:30	Session A6 (Room 342)	Session B6 (Room 345)
	18:00-20:00	Dinner	
2019-10-13 Kyungpook National University, Daegu, South Korea	09:00-10:30	Session A7 (Room 342)	Session B7 (Room 345)
	10:30-10:50	Coffee break	
	10:50-11:10	Closing Remarks(Room 342，Xiaohong Jiang)	
	11:10-11:30	Free discussion	
	12:00-14:00	Lunch	
	14:00-16:00	TPC Meeting	

Rooms 342 & 345, IT5 building (Bld. No. 415), Kyungpook National University

Greeting Message from General Conference Chairs

Welcome to 2019 International Conference on Networking and Network Applications(NaNA2019)! Welcome to Daegu, South Korea! We believe that the solid conference program and the amazing city of Daegu will offer you irresistible attraction.

The NaNA2019 is technically sponsored by Kyungpook National University, South Korea; Xidian University, China;Daegu Creative Economy Innovation Center, Daegu, South Korea; Future University Hakodate, Japan; 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, Data Center (DC) Networks, Network Management, Network Monitoring, Network 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 Daegu, South Korea.

NaNA2019 General Co-Chairs

Dongkyun Kim, Kyungpook National University, South Korea
Chadi Assi, Concordia University, Canada
Chau-Yun Hsu, Tatung University, Taiwan,China

Oct.11, 2019

Committees

CONFERENCE ORGANIZERS:
Honorary General Chair:
Prof. Norio Shiratori, Waseda University /Tohoku University, Japan, IEEE Life Fellow
You-Ze Cho, Kyungpook National University, South Korea

General Co-Chairs:
Dongkyun Kim, Kyungpook National University, South Korea
Chadi Assi, Concordia University, Canada
Chau-Yun Hsu, Tatung University, Taiwan,China

Technical Program Committee Co-Chairs:
Limei Peng, Kyungpook National University, South Korea
Syed Hassan Ahmed, Georgia Southern University, USA
Gangxiang Shen, Soochow University, China
Bishnu Prasad Gautam, Wakkanai Hokusei Gakuen University, Japan

Publication and Registration Co-Chairs:
Xuanwen Hao, Shaanxi Normal University, China
Zhenqiang Wu, Shaanxi Normal University, China

Local Arrangement Chairs:
HongseokYoo, Kyungwoon University, South Korea
Sungwon Lee, Kyungpook National University, South Korea
Bo Liu, Shaanxi Normal University, China
Jun Liu, Tsinghua 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
Chia-Ho Ou, National Pingtung University, Taiwan,China
Chi Zhang, University of Science and Technology of China, China

Track 2: Optical Networks and Data Center (DC) Networks
János Tapolcai, Budapest University of Technology and Economics, Hungary
Aleksandra Smiljanic, Belgrade University, Serbia
Massimo Tornatore, Politecnico di Milano, Italy
Rentao Gu, Beijing University of Posts and Telecommunications, China

Track 3: Network Management, Monitoring and Automation
Zhou-guo Chen, China Electronics Technology Cyber Security Co., LTD, China
Yung-Fa Huang, Chaoyang University of Technology, Taiwan,China
Guilin Chen, Chuzhou University, China
Masaru Fukushi, Yamaguchi University, Japan

Track 4: Network Applications
Vajirasak Vanijja, King Mongkut's University of Technology Thonburi, Thailand
Xiaojiang Chen, Northwest University, China
Chia-Wei Tsai, Southern Taiwan,China University of Science and Technology, Taiwan,China
Wei Su, Beijing Jiaotong University, China

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

Advisory Committee:
Nirwan Ansari, New Jersey Institute of Technology, USA
Achille Pattavina, Politecnico di Milano, Italy
Han-Chieh Chao, Dong Hwa University, Hualien, Taiwan,China
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
Hirendra Man Pradhan, Kathmandu Engineering College, Nepal

Technically sponsored by:
Kyungpook National University
Daegu Creative Economy Innovation Center, Daegu, South Korea
Xidian University, China
Future University Hakodate, Japan
WakkanaiHokuseiGakuen University, Japan

Keynote Speech 1:

Towards Sustainable Smart Cities: Trends and Open Challenges in Smart Cities

Prof. Kijun Han

Kyungpook National University, South Korea

Abstract: Smart city is an application of Internet of Things (IoT) notion. Unceasing growth of population and urbanization have intensified innovative ways to handle urbanization with minimal impact on environment, citizen lifestyles, and governance. Initial integration of information communication technology (ICT) into city operations have promoted telicity, information city, and digital city concepts. Later, the conception of IoT has founded the smart cities, which support the city operations intelligently with minimal human interaction. Smart city emerged as a solution to address the challenges arise with exponential growth of urbanization and population. However, smart city concept is still evolving and not mainstreamed throughout the globe due to technological, economical, and governing barriers. Therefore, this speech aims to deliver the essence of smart cities. The speech will present a brief overview of smart cities, followed by trends in real-world implementations of smart cities. Finally, I will present some challenges that we have identified through extensive literature survey on smart cities.

CV: Kijun Han received the B.S. degree in electrical engineering from Seoul National University, South Korea, in 1979 and the M.S. degree in electrical engineering from the KAIST, South Korea, in 1981 and the M.S. and Ph.D. degrees in computer engineering from the University of Arizona, in 1985 and 1987, respectively. He authored over 180 peer reviewed scientific journal articles. He has been a professor of School of Computer Science and Engineering at the Kyungpook National University, South Korea since 1988. His area of expertise includes computer networks, wireless sensor networks, Internet of Things, Smart system designing, etc.

Keynote Speech 2:

Energy-Efficient Communications in HetNets

Prof. Wanjiun Liao

National Taiwan,China University (NTU), Taiwan,China

Abstract: Energy savings in cellular systems is increasingly important due to ever-deteriorating global warming. Heterogeneous networks (HetNets) composed of multiple tiers of cells could attain energy savings thanks to the lower operational and transmit power consumptions of small cells. To address the inter-cell interference problem while achieving network energy conservation, multicell cooperation facilitating cooperative transmission and sleep mode operation paves the way toward future green HetNets. To further alleviate the backhaul power consumption induced by cooperative transmissions, proactively caching popular contents locally is regarded as a viable solution. This talk will focus on how to achieve energy-aware multicell cooperation in HetNets with content caching, and show that the place-then-transmit strategy is optimal to this problem. I will then talk about how green multicell cooperation and shareable caching in HetNets can be facilitated via a connect-then-cache strategy. Both of the above two problems are NP-hard; therefore, we are motivated to design approximate solutions and show that the achieved total power consumption can be upper-bounded.

CV: Professor Wanjiun Liao is a Lifetime Distinguished Professor of National Taiwan,China University (NTU), Taipei, Taiwan,China, the Director of Internet of Things Research Center of NTU, and an Adjacent Research Fellow of Research Center for Information Technology Innovation, American Sinica in Taiwan,China. She was the Y. Z. Hsu Scientific Chair Professor, the Himax Chair Professor, the Department Chair of Electrical Engineering of NTU, the Vice President for Academic Affairs of NTU, and the Director General of Department of Engineering and Technologies, Ministry of Science and Technology (MOST), Taiwan,China. Professor Liao has been very active in IEEE and ComSoc, serving as IEEE ComSoc Distinguished Lecturer (2011-2012), Associate Editor of IEEE Transactions on Wireless Communications (2003-2010) and IEEE Transactions on Multimedia (2004-2007), Steering Committee of IEEE Transactions on Mobile Computing (2016-2019), IEEE Fellow Committee (2013-2015), IEEE ComSoc Fellow Evaluation Standing Committee (2016-2019), IEEE ComSoc Director for Asia Pacific Region (Region 10) (2013-2014), and IEEE ComSoc Board-of Governors (BoG) Members-at-Large (2017-2019). She received many awards and recognitions from different organizations, including Academic Award by Ministry of Education, Outstanding Research Awards by National Science Council, Taiwan,China, and several IEEE best paper awards. She is a Fellow of the IEEE.

Keynote Speech 3:

Security and Privacy-preserving Challenges of e-Health Solutions in Cloud Computing

Prof. Hua Wang
Victoria University, Australia

Abstract: This talk shows a systematic and comprehensive review of security and privacy-preserving challenges in e-health solutions, and indicates various privacy preserving approaches to ensure privacy and security of Electronic Health Records (EHRs) in the cloud. This study highlights the research challenges and directions concerning cyber security to build a comprehensive security model for EHR. It presents various aspects of several articles and identified the following tasks:1) EHR security and privacy (2) Security and privacy requirements of e-health data in cloud (3) EHR Cloud Architecture, (4) Diverse EHR cryptographic and non-cryptographic approaches. We also discuss some crucial issues and the ample opportunities for advanced research related to security and privacy of EHRs.

CV:Hua is now a full time Professor at Victoria University, Australia. He has more than ten years teaching and working experience in Applied Informatics at both enterprise and university. He has expertise in Big Data, Health Informatics, Cloud Computing, Cyber Security, Artificial Intelligence. As a Chief Investigator, Hua has successfully received six Australian Research Council (ARC) Discovery grants and two Linkage grants with 2.3M since 2006. He is also a successor for international grants such as two Japan – Australian grants, one German – Australian grant, one Norway Government grant and grants from Hong Kong Chinese University, Hong Kong City University.

Hua has published 200+ refereed scholar papers including 100 Journal papers in Artificial Intelligence, cyber security, access control, data mining, database, privacy preserving and Web services. Representative publications are on ACM Transactions on Internet Technology, ACM Transactions on Information Systems, ACM Transactions on Knowledge Discovery from Data, IEEE Transactions on Dependable and Secure Computing, IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Automation Science and Engineering and World Wide Web; and Proceedings of ACL, AAAI, CIKM, ICDE, ICDM and PAKDD (https://scholar.google.com.au/citations?user=U7B_FmYAAAAJ&hl=en). Hua's h-index is 32 based on Google Scholar website. As a principal supervisor, he currently has 14 PhD students at VU and has successfully supervised 7 PhD students.

Hua has been an ARC reviewer since 2009. Hua is the Editor-in-Chief, ICST Transaction on Scalable Information Systems, and also editor for PLOS ONE and World Wide Web Journal – Springer. He has involved in many prestigious international conferences such as PC members (IJCAR, AAAI, DASFFA) and chairs (WISE, HIS).

Opening Remarks and Keynotes

Daegu Creative Economy Innovation Center (대구창초경제혁신센터)

2019-10-11 9:00-11:50			
Time	**Conference Program**	**Spokesman**	**Chairman**
09:00-09:15	Welcome Speech	Norio Shiratori	Limei Peng
09:15-09:30	Welcome Address	You-Ze Cho	Limei Peng
09:30-10:10	Keynote Speech 1	Kijun Han	You-Ze Cho
10:10-10:30	Coffee break		
10:30-11:10	Keynote Speech 2	Wanjiun Liao	Pin-Han Ho
11:10-11:50	Keynote Speech 3	Hua Wang	Yan Luo

Track 1:Wireless Networks

Session A1　　Chair: Jianfeng Ma

ID	Time	Title	Author	Type
50	14:00-14:20	Edge Weight Differential Privacy Based Spectral Query Algorithm	Lingjie Zhou, Yong Zeng, Yang Liu, Zhihong Liu, Jianfeng Ma and Xiaoyan Zhu	Long
80	14:20-14:40	On the connectivity of highly dynamic wireless sensor networks in smart factory	Cong Gao, Zhongmin Wang and Yanping Chen	Long
96	14:40-15:00	Time-Aware Dummy-Based Privacy Protection for Continuous LBSs	Jun Niu, Xiaoyan Zhu, Lei Shi and Jianfeng Ma	Long
97	15:00-15:20	A Semantic-based Dummy Generation Strategy for Location Privacy	Muyu Zhao, Xiaoyan Zhu, Jun Niu and Jianfeng Ma	Long
108	15:20-15:40	Finding an Optimum Set of Roles in a CPAC model	Enamul Kabir and Hua Wang	Long

Coffee Break

2019-10-11　　16:00-17:30　　Room 2

Session A2　　Chair: Di Lu

ID	Time	Title	Author	Type
38	16:00-16:15	An Optimal Resource Allocation Mechanism in Vehicular MEC Systems	Gaofeng Hong, Qili Wen, Wei Su and Penglei Wu	Short
112	16:15-16:30	Energy-Efficiency in Cache-Enabled mmWave Cellular Networks	Haoran Mei, Qiang Zhao, Limei Peng	Short
13	16:30-16:45	RBDR:A Distributed Routing Algorithm in High Mobility UAV Network	Wenchao Pi, Hao Hao, Shujie Yang, Yong Liao and Changqiao Xu	Short
19	16:45-17:00	An efficient privacy-preserving bidirectional friends matching scheme in mobile social networks	Tong Li, Xiao-qing Li and Xue-feng Liu	Short
20	17:00-17:15	Security Mechanisms to Provide Convoy Member Co-presence Authentication in Vehicle Platooning	Lin Yang, Zhihong Liu, Yong Zeng, Shijia Mei and Jianfeng Ma	Short
22	17:15-17:30	Multimedia Service Distribution Optimization in Edge Cloud Networks	Cuili Jiang, Tengfei Cao, Zhiqiang Liu and Xiaoying Wang	Short

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

Session B1   Chair:Bo Tian

ID	Time	Title	Author	Type
75	14:00-14:20	Order Aware Service Recovery Algorithm in Elastic Optical Network with Multiple Failures	Shu Li, Rentao Gu, Geng Zhang, Yanan Wang, Yang Wang and Yuefeng Ji	Long
105	14:20-14:40	Ripple: An Efficient Runtime Reconfigurable P4 Data Plane for Multicore Systems	Xiaoban Wu, Peilong Li, Timothy Miskell, Liang-Min Wang, Yan Luo and Xiaohong Jiang	Long
3	14:40-14:55	Sonum: Software-defined Optimal Network Utilization Mechanism for Long Flow Scheduling in Data Center Networks	Kun Yu, Xiao-Jin Wu, Li-Zhuang Tan and Wei Su	Short
11	14:55-15:10	Data Backup in Geo-Distributed Data Center Networks Under Time and Budget Constraints	Lisheng Ma and Bin Yang	Short
12	15:10-15:25	Disaster-Aware Dynamic Routing for SDN-Based Active-Active Data Center Networks	Wenhao Zhang, Lisheng Ma and Xiaohong Jiang	Short
16	15:25-15:40	Network Intrusion Detection based on Selective Ensemble Learning	Du Hongle, Zhang Lin and Zhang Yan	Short

Coffee Break

Session B2   Chair:Kaijun Wu

ID	Time	Title	Author	Type
17	16:00-16:15	Network Anomaly Detection based on Cooperative Semi-supervised Support Vector Machine	Zhang Lin, Du Hongle and Zhang Yan	Short
60	16:15-16:30	A Differential Privacy Preserving Approach for Logistic Regression in Genome-Wide Association Studies	Ziwei Han, Laifeng Lu and Hai Liu	Short
67	16:30-16:45	Inferring Private Attributes Based on Graph Convolutional Neural Network in Social Networks	Yupan Tian, Yang Niu, Jun Yan, Feng Tian	Short
88	16:45-17:00	A Detailed Simulation Study of the Push-based Protocol for Critical Data Dissemination in Vehicular Named Data Networks	Muhammad Azfar Yaqub, Syed Hassan Ahmed and Dongkyun Kim	Short

23	17:00-17:15	Pseudonym Changing for Vehicles in VANETs: A Game-Theoretic Analysis Based Approach	Ziwen Zhao, Ayong Ye, Lingyu Meng and Qiang Zhang	Short
24	17:15-17:30	Service Stochastic Optimization with Energy Constraint over UAV-Assisted Network	Han Xiao, Tengfei Cao, Shujie Yang, Lujie Zhong, Yong Liao and Changqiao Xu	Short

		2019-10-12 9:00-10:15 Room 342		
		Session A3 Chair: Rentao Gu		
42	09:00-09:15	Secrecy Capacity Analysis in D2D-Enabled Cellular Networks Under Power Control	Miaofei Zhang, Bin Yang, Shenghui Zhao and Lisheng Ma	Short
43	09:15-09:30	A Fast Algorithm for Solving a kind of Gauss Hypergeometric Functions in Wireless Communication Based on Pfaff transformation	Jianping Cai, Mingming Chen, Shuangyue Zhang, Chengxi Hong and Yuehong Lu	Short
54	09:30-09:45	Research on Resolution Limit of Community Detection in Location-based Social Networks	Longfei Wang, Yong Zeng,Yixin Li, Zhihong Liu, Jianfeng Ma,Xiaoyan Zhu	Short
62	09:45-10:00	Enhanced BAN-GZKP: Optimal Zero Knowledge Proof based Scheme in Body Area Networks	Mubarak Umar, Xuening Liao and Jiawang Chen	Short
65	10:00-10:15	Secure Communication in Two-Hop Buffer-Aided Networks with Limited Packet Lifetime	Xuening Liao, Yuanyu Zhang, Bo Liu and Zhenqiang Wu	Short
		Coffee Break		
		2019-10-12 10:35-11:50 Room 342		
		Session A4 Chair: Teng Li		
10	10:35-10:50	Taichi: Signal Dodging and Interference Guiding	Liyuan Xiao, Zhao Li, Lu Zhen, Bigui Zhang, Yang Xu and Jia Liu	Short
76	10:50-11:05	An Improved Mobile Charging Algorithm for Wireless Sensor Networks	Hongli Yu, Bin Yang,Jinjun Liu and Tao Wang	Short
77	11:05-11:20	Exploiting Temporal Correlation Mechanism for Energy Efficient Data Collection in Intrabody Nanonetworks	Shumaila Javaid, Hamza Fahim, Xuening Liaoand Farhana Javed	Short
78	11:20-11:35	Bio-Inspired Nanorouter Mobility Model for Energy Efficient Data Collection in Intrabody Nanonetwork	Hamza Fahim, Wei Li, Shumaila Javaid and Farhana Javed	Short
90	11:35-11:50	Mobility-aware Gradient Routing Algorithm for Flying Ad hoc Networks	Jun Li	Short

Track 3: Network Management, Monitoring, and Automation

Session B3   Chair:Bishnu Prasad Gautam

ID	Time	Title	Author	Type
4	09:00-09:20	Delay Prediction and Abnormal Detection for Hybrid Cloud based on GBDT	Man Li, Wei Su, Shuai Gao and Li-zhuang Tan	Long
9	09:20-09:40	Emotional Analysis Based on Dynamic Functional Brain Network	Zhongmin Wang, Yue Tong and Xia Heng	Long
63	09:40-10:00	Space-Power Adaptive Interference Steering	Zhao Li, Ke Long, Yanan Tian, Xiaohong Li, Liyuan Xiao, Jiamin Ding and Jia Liu	Long
81	10:00-10:20	Data Privacy Quantification and De-Identification Model Based on Information Theory	Zeyu Zhang, Zhiyang Lu and Youliang Tian	Long

Coffee Break

Session B4   Chair: Yue Zhao

ID	Time	Title	Author	Type
2	10:40-10:55	An Automatic Signature-Based Approach for Polymorphic Worms in Big Data Environment	Fangwei Wang, Shaojie Yang, Dongmei Zhao and Changguang Wang	Short
14	10:55-11:10	A recurrent Gaussian process regression model with composite kernel for industrial process quality prediction	Yanping Chen, Cong Gao, Weihui Yang, Zhongmin Wang, Zhong Yu and Hong Xia	Short
15	11:10-11:25	An Intelligent cyberspace defense architecture based on elastic resource infrastructure and dynamic container orchestration	Jianfeng Chen, Jie Liu, Zhi Sun, Chunlin Li and Chunhui Hu	Short
48	11:25-11:40	A Game Theoretical Analysis of Risk Adaptive Access Control for Privacy Preserving	Hongfa Ding, Changgen Peng, Youliang Tian and Shuwen Xiang	Short
29	11:40-11:55	Improved Siamese Network for Video-based Person re-identification	Zhongmin Wang, Lanlan Cai, Na Duan and Lin Fan	Short

Track 4: Network Applications

Session A5   Chair: Cong Gao

ID	Time	Title	Author	Type
7	14:00-14:20	Analysis of Influence Maximization Algorithm in Hub-Sparse Structure Social Network	Minzheng Xuanyuan, Le Xiao and Weidong Yang	Long
39	14:20-14:40	Reconfigurable Pseudo-Random Number Generator Based on Cellular Automata	Jie Chi, Li-Hua Dong and Yong Zeng	Long
5	14:40-15:00	Location Privacy Protection in Mobile Social Networks Based on l-diversity	Li Hongtao, Gong Linxia, Guo Feng, Miao Quanli, Wang Jie and Zhang Wenyin	Long
52	15:00-15:20	Collective Influence Based Privacy Preservation for Social Networks	Mengli Liu, Yong Zeng, Yikai Liu, Zhihong Liu, Jianfeng Ma and Xiaoyan Zhu	Long
79	15:20-15:40	Personalized Recommendation for Cold-Start Users via Cluster-Level Latent Feature Model	Hui Qiao, Yangyang Liu, Xuewen Dong and Di Lu	Long

Coffee Break

2019-10-12   16:00-17:30   Room 342

Session A6   Chair: Yuanyu Zhang

ID	Time	Title	Author	Type
6	16:00-16:15	Monitoring of E-learning System Servers using the MariaDB Galera Cluster	Krishna Prasad Bhattarai, Khamvila Visai, Ryohei Ito, Kazuhiko Sato and Bishnu Prasad Gautam	Short
8	16:15-16:30	Virtual Machine Memory Forensics Method for XenServer Platform	Shuhui Zhang, Lianhai Wang, Lijuan Xu, Shujiang Xu, Xiaohui Han and Shumian Yang	Short
31	16:30-16:45	Another analysis of a synchronizing stream cipher combining LFSR and FCSR	Li Zhang, Chunhong Wang, Tao Pei and Yong Zeng	Short
34	16:45-17:00	Detecting data race in network applications using static analysis	Dongsheng Qi, Naijie Gu and Junjie Su	Short
35	17:00-17:15	Efficient Hierarchical Data Access Control for Resource-limited Users in Cloud-based e-Health	Jiawei Zhang, Jianfeng Ma, Zhuo Ma, Ning Lu, Yanbo Yang, Teng Li and Dawei Wei	Short

18	17:15-17:30	Bitstream Protocol Classification Mechanism Based on Feature Extraction	Wei Wang, Binbin Bai, Yichuan Wang, Xinhong Hei and Li Zhang	Short
<td colspan="5" align="center">**2019-10-12   14:00-15:45   Room 345**</td>
<td colspan="5" align="center">**Session B5   Chair: Hongtao Li**</td>
37	14:00-14:15	Research on pricing mechanism and security of digital currency	Xiaohan Zhu, Xiang Lu, Shaobo Wu	Short
41	14:15-14:30	A time-based bi-objective virtual machine placement algorithm in cloud computing platform	Pengfei Yang, Yumin Tian, Lu Fan, Fanhui Zhou and Jiayang Huang	Short
44	14:30-14:45	Comparison of Neural Networks' Performance in Early Screening of Autism Spectrum Disorders under Two MRI Principles	Mingkang Zhang, Yanbiao Ma, Linan Zheng, Yuanyuan Wang, Zhihong Liu, Jianfeng Ma	Short
45	14:45-15:00	Trust-PBFT: a PeerTrust-based Practical Byzantine Consensus Algorithm	Wei Tong, Xuewen Dong and Jiawei Zheng	Short
51	15:00-15:15	A Topology Based Differential Privacy Scheme for Average Path Length Query	Tong Dong, Yong Zeng, Mengli Liu, Zhihong Liu, Jianfeng Ma, Xiaoyan Zhu	Short
53	15:15-15:30	Adaptive N-gram Model Based Differentially Private Trajectory Synthesis Method	Huichuan Liu, Yong Zeng, Zhihong Liu, Jianfeng Ma and Xiaoyan Zhu	Short
73	15:30-15:45	Rapid Data Evacuation Based on Zone Risks for Large-Scale Disasters in Software-Defined Optical Networks	Guozhu Zhao, Lisheng Ma and Shenghui Zhao	Short
<td colspan="5" align="center">**Coffee Break**</td>
<td colspan="5" align="center">**2019-10-12   16:05-17:20   Room 345**</td>
<td colspan="5" align="center">**Session B6   Chair: Yanping Chen**</td>
91	16:05-16:20	A Blockchain-Based Access Control Scheme for Smart Grids	Yuyang Zhou, Yuanfeng Guan, Zhiwei Zhang and Fagen Li	Short
94	16:20-16:35	A Monotone Detection Algorithm to Mitigate ISI for Molecular Communications Based on Drift Diffusion	Xinlei Wang, Zhenqiang Wu and Bo Liu	Short
95	16:35-16:50	Lightweight Security Authentication Mechanism towards UAV Networks	Teng Li, Jianfeng Ma, Pengbin Feng, Yue Meng, Xindi Ma, Jiawei Zhang, Chenyang Gao and Di Lu	Short

102	16:50-17:05	Secure Spatial Query with Differentially Private Access Pattern	Feng Tian, Zhenqiang Wu, Hai Liu, Laifeng Lu and Xiaolin Gui	Short
107	17:05-17:20	Incentive Mechanism for Data Uploading in Mobile Crowdsensing	Xiaolan Liu, Wu Wang, Bin Yang and Yuanyuan Fan	Short

<div align="center" style="color:red">2019-10-13   09:00-10:15   Room 342</div>

<div align="center">Session A7   Chair: Yong Zeng</div>

74	09:00-09:15	A Fuzzy String Matching Scheme Resistant to Statistical Attack	Junshuai Sun, Jianfeng Ma, Jiao Quan, Xinghui Zhu and Chih-Lin I	Short
82	09:15-09:30	Partial-Equivalence: a Semantic Strategy in Service Composition and Modeling	Shiyang Ma, Xuewen Dong, Jiawei Zheng, Xiaozhou Yang and Qihang Liu	Short
85	09:30-09:45	QoS-aware Path Finding and Load Balancing in Service-Composition	Xuewen Dong, Qihang Liu, Di Lu, Shiyang Ma and Jiawei Zheng	Short
89	09:45-10:00	Detection Method on the Privacy Leakage for Composite Services	Xinghui Zhu, Chaojie Pan, Lele Zheng and Junshuai Sun	Short
92	10:00-10:15	Protecting Security-Sensitive Data Using Program Transformation and Intel SGX	Anter Faree and Yongzhi Wang	Short

<div align="center">Coffee Break</div>

<div align="center" style="color:red">2019-10-13   09:00-10:30   Room 345</div>

<div align="center">Session B7   Chair: Lisheng Ma</div>

66	09:00-09:15	Adaptive Differential Privacy of Character and Its Application for Genome Data Sharing	Hai Liu, Zhenqiang Wu, Changgen Peng, Xiujuan Lei, Feng Tian and Laifeng Lu	Short
69	09:15-09:30	An Integrity Protection Scheme Based on Binary Multi-granularity Incremental Tree for Embedded Computing Platform	Pengfei Yang, Jiayang Huang, Xin Mi, Bo Wan	Short
83	09:30-09:45	An Automatic Crisis Information Recognition Model Based on BP Neural Network	Li Yang, Jiaxue Wang, Huihui Guo and Jianfeng Ma	Short
84	09:45-10:00	An Abnormal Transaction Detection Mechanim on Bitcoin	Lingxiao Yang, Xuewen Dong, Siyu Xing, Jiawei Zheng, Xinyu Gu and Xiongfei Song	Short

| 99 | 10:00-10:15 | Cloud Computing Task Scheduling Based on Improved Differential Evolution Algorithm | Chenyang Gao, Jianfeng Ma, Yulong Shen, Teng Li, Fei Li and Yuelin Gao | Short |
| 111 | 10:15-10:30 | A Hypertension Risk Prediction Model Based on BP Neural Network | Huanhuan Zhao, Zuchang Ma, Yining Sun | Short |

Contact Us

Dr HaoXuanwen

Email: nanaconference@126.com

Download the zip of CD_ROM of NaNA2019 Conference

Website: www.nana-conference.org

Username: nanaconference@126.com

Password: NaNA2019
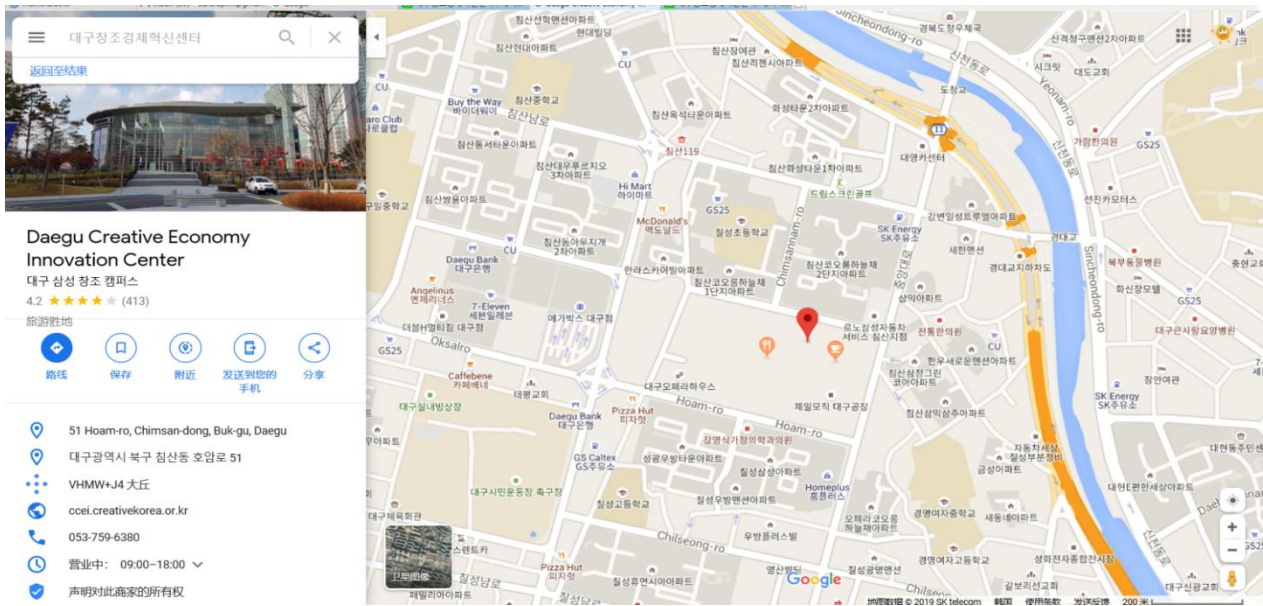
Conference Guide Information

1.Overview Map

2.Map of Kyungpook National University

**Registration** at Kyungpook National University In front of _**rooms B101 & B102, IT5 building**_ (Bld. _**No. 415**_), Kyungpook National University _**from 15:00 to 21:00 on October 10**_

3.Map of Daegu Creative Economy Innovation Center (*Conference on October 11*)

4. Sessions A3-A7 (**Room 342**) & Sessions B3-B7 (**Room 345**) : IT5 building (Bld. No. 415), Kyungpook National University(*Conference on October 12 -13*)

Sessions A3-A7   (Rooms 342)

Sessions B3-B7　(Rooms 345)