

IEEE Cybermatics (iThings/CPSCoM/SmartData/GreenCom) and APEC Smart City 2016 Program Overview

Friday December 16th, 2016					
Venue Time	The 2nd Floor Conference Hall (二楼会议大厅)	The 3rd Floor Conference Room (三楼会议室)	The 4th Floor Conference Room (四楼会议室)	The 5th Floor Conference Room (五楼会议室)	The 6th Floor Conference Room (六楼会议室)
13:50-16:30	Registration (Venue: The First Floor Lobby)				
14:20-15:50	SmartData-01	GreenCom-01	CPSCoM-01	iThings-01	iThings-03
15:50-16:00	Coffee Break (Venue: The 4 th Floor Conference Room)				
16:00-17:30	---	iThings-05	CPSCoM-02	iThings-02	iThings-04

Saturday December 17th, 2016

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08:30-16:00	Registration (Venue: The First Floor Lobby)				
09:00-09:20	Opening Ceremony (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Xingang Liu)				
09:20-09:40	Group Photo				
09:40-10:20	Congress Keynote Speech I: Prof. Jianhua Ma (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Stephen S. Yau)				
10:20-11:00	Congress Keynote Speech II: Prof. Yingchang Liang (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Mianxiong Dong)				
11:00-11:10	Coffee Break (Venue: The 2 nd Floor Conference Hall)				
11:10-11:50	Congress Keynote Speech III: Prof. Witold Pedrycz (Venue: The 2 nd Floor Conference Hall, Chair: Prof. M. Jamal Deen)				
11:50-12:30	Congress Keynote Speech IV: Prof. Yuanshun Dai (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Jianhua Ma)				
12:30-14:00	Lunch (Venue: The 1 st Floor Dining Room)				
14:00-14:40	Congress Keynote Speech V: Prof. Zheng Yu (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Zhikui Chen)				
14:40-16:25	APEC Smart City Forum (Venue: The 2 nd Floor Conference Hall, Chair: Prof. M. Jamal Deen and Prof. Tianchu Yang)				
	APEC Keynote Speech I: Prof. Jinjun Chen (14:40-15:05)				
	APEC Keynote Speech II: Prof. Julien Bourgeois (15:05-15:30)				
	APEC Keynote Speech III: Dr. Zhibo Pang (15:30-15:55)				
	Forum Discussion Section (15:55-16:25)				
16:25-16:35	Coffee Break (Venue: The 2 nd Floor Conference Hall)				
16:35-18:05	SmartData-02	GreenCom-02	CPSCom-03	iThings-06	iThings-07
18:30-20:30	Banquet (Venue: The 1 st Floor Dining Room, Chair: Stephen S. Yau)				

Sunday December 18th, 2016

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08:30-16:00	Registration (Venue: The 2 nd Floor Conference Hall)				
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09:40-10:20	Congress Keynote Speech VII: Prof. M. Jamal Deen (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Laurence T. Yang)				
10:20-10:30	Coffee Break (Venue: The 2 nd Floor Conference Hall)				
10:30-11:10	Congress Keynote Speech VIII: Prof. Stephen S. Yau (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Bin Guo)				
11:10-11:50	Congress Keynote Speech IX: Prof. Shiyang Hu (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Geyong Min)				
11:50-13:30	Lunch (Venue: The 1 st Floor Dining Room)				
13:30-15:00	SmartData-03	GreenCom-03	CPSCoM-05	iThings-08	iThings-09
15:00-15:10	Coffee Break (Venue: The 2 nd Floor Conference Hall)				
15:10-16:40	CPSCoM-04	iThings-10	CPSCoM-06	iThings-11	iThings-12

The Conference Technical Program

SmartData 2016 Technical Program

Friday December 16th, 2016

Time\Venue	The 2 nd Floor Conference Hall (二楼会议大厅)
13:50-16:30	Registration (Venue: The First Floor Lobby)
14:20-15:50	SmartData -01
15:50-16:00	Coffee Break (Venue: The 4 th Floor Conference Room)

SmartData -01

1. From Big data to Smart Data with the K-Nearest Neighbours algorithm
Isaac Triguero, Jes Maillo, Juli Luengo, Salvador Garci, Francisco Herrera
2. Control Spare Parts Inventory Obsolescence by Predictive Modelling
Madhu Babu Cherukuri, Tamoghna Ghosh
3. A Novel Method of Fault Detection for Solenoid Valves Based on Vibration Signal Measurement
Haifeng Guo, Kai Wang, He Cui, Aidong Xu, Jin Jiang
4. Time Division Multiplexing Elastic Waveband Switching Algorithm Using Markov Data Prediction
Meng Fanbo, Sun Yuyang, Gong Xiaoxue, Yang Yitong, Hou Weigang
5. A System Design for Driving Behavior Analysis and Assessment
Jiayin Cen, Zhuowen Wang, Chao Wang, Fuqiang Liu
6. A Reliable big data Transmission Algorithm for Space Information Network
Rong Geng, Xiaojie Wang, Ning Ye
7. An Efficient Eye Localization Method Based on Geometrical Approach and SUSAN Operator
Zehua Lan, Yingdong Mu
8. Research on MapReduce-based fuzzy associative classifier for big probabilistic numerical data
Bin Pei, Fenmei Wang, Xiuzhen Wang

SmartData 2016 Technical Program

Saturday December 17th, 2016

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11:00-11:10	Coffee Break (Venue: The 2 nd Floor Conference Hall)
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12:30-14:00	Lunch (Venue: The 1 st Floor Dining Room)
14:00-14:40	Congress Keynote Speech V: Dr. Yu Zheng (Chair: Prof. Zhikui Chen)
14:40-16:25	APEC Smart City Forum (Chair: Prof. M. Jamal Deen and Prof. Tianchu Yang)
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	APEC Keynote Speech II: Prof. Julien Bourgeois (15:05-15:30)
	APEC Keynote Speech III: Prof. Zhibo Pang (15:30-15:55)
	Forum Discussion Section (15:55-16:25)
16:25-16:35	Coffee Break (Venue: The 2 nd Floor Conference Hall)
16:35-18:05	SmartData-02
18:30-20:30	Banquet (Venue: The 1 st Floor Dining Room, Chair: Prof. Stephen S. Yau)

SmartData-02

1. Network Public Comments Sentiment Analysis Based on Multilayer Convolutional Neural Network
Ming Jiang, Liqiang Jin, Feiwei Qin, Min Zhang, Ziyang Li
2. Cyber Security Situational Awareness
Huaglority Tianfield
3. Malicious Application Dynamic Detection in Real-Time API Analysis
Shiting Xu, Xinyu Ma, Yuandong Liu, Qiang Sheng
4. CSV-X: A Linked Data Enabled Schema Language, Model, and Processing Engine for Non-Uniform CSV
Wirawit Chaochaisit, Ken Sakamura, Noboru Koshizuka, Masahiro Bessho
5. Stereo Matching Based on Edge-Aware T-MST
Dan Zhou, Jiying Zhao
6. Watermarking Based Quality Assessment for DIBR 3D Images
Lei Chen, Jiying Zhao
7. Estimate of Public Environment-Emotional Index Based on Micro-blog Data
Guyuan Chen, Chao Wang, Fuqiang Liu, Feng Wang, Shun Li, Mingxiang Huang
8. Improved Prediction of Dengue Outbreak Using the Delay Permutation Entropy
Guohun Zhu, Jane Hunter, Ying Jiang

SmartData 2016 Technical Program

Sunday December 18th, 2016

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08:30-16:00	Registration (Venue: The 2 nd Floor Conference Hall)
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11:10-11:50	Congress Keynote Speech IX: Prof. Shiyang Hu (Chair: Prof. Geyong Min)
11:50-13:30	Lunch (Venue: The 1 st Floor Dining Room)
13:30-15:00	SmartData-03
15:00-15:10	Coffee Break (Venue: The 2 nd Floor Conference Hall)

SmartData-03

1. Deep Learning Based Link Prediction with Social Pattern and External Attribute Knowledge in Bibliographic Networks
Chuanting Zhang, Haixia Zhang, Dongfeng Yuan, Minggao Zhang
2. Real time Failure Prediction of Load Balancers and Firewalls
TAMOGHNA GHOSH, Dipanjan Sarkar, Tushar Sharma, Ashok Desai, Raghav Bali
3. Wavelet-based Stacked Denoising Autoencoders for Cell Phone Base Station User Number Prediction
Jing Li, Jingyuan Wang and Zhang Xiong
4. Control-flow checking using branch sequence signatures
Liping LIU, Linlin CI, Wei LIU, ChengBin
5. Shapelets and Parallel Coordinates Based Automated Query Generation for Complex Event Processing
K. J. P. G. Perera, R. N. Navagamuwa, M.R.M.J. Sally, L.A.V.N. Prashan, H.M.N. Dilum Bandara

GreenCom 2016 Technical Program

Friday December 16th, 2016

Time\Venue	The 3 rd Floor Conference Room (三楼会议室)
13:50-16:30	Registration (Venue: The First Floor Lobby)
14:20-15:50	GreenCom -01
15:50-16:00	Coffee Break (Venue: The 4 th Floor Conference Room)
16:00-17:30	---

GreenCom -01

1. OPC Communication Protection Method Based on Access Control and Anomaly Traffic Detection
Yawen Guo, Chao Cheng, Xiaoshuai Xin
2. Adaptive Tile Parallelization for Fast Video Encoding in HEVC
Maria Koziri, Panos K. Papadopoulos, Nikos Tziritas, Antonios N. Dadaliaris, Thanasis Loukopoulos, Samee U. Khan, Cheng-Zhong Xu
3. A CORDIC with Unified Rotation Strategy
Siyang Wang, Jia Yu, Kui-Ting Chen, Takaaki Baba
4. The Communication Analysis of Implementation in Breadth First Search Algorithm
YiChun Sun, XiaoDong Yi, HengZhu Liu
5. Weighted Energy Detection Receivers for NC-UWB Green Communications Using Parameter Optimized Improved Normalized LMS Algorithm
Danli Liu, La'ning Ma, Zhonghua Liang, Peipei Li
6. User Association Based Cooperative Energy-Saving Mechanism in Heterogeneous 5G Access Networks
Fei Zheng, Wenjing Li, Peng Yu, Luoming Meng
7. GPSF: General-Purpose Scheduling Framework for Container based on Cloud Environment
Sungmin Choi, Rohyoung Myung, Heeseok Choi, Kwangsik Chung, Joonmin Gil, Heonchang Yu
8. Feature-oriented Domain Analysis Framework for Energy-aware Self-adaptive Software
Marimuthu C. K. Chandrasekaran

GreenCom 2016 Technical Program

Saturday December 17 th , 2016	
Time (Venue)	The 3rd Floor Conference Room (三楼会议室)
08:30-16:00	Registration (Venue: The First Floor Lobby)
09:00-09:20	Opening Ceremony (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Xingang Liu)
09:20-09:40	Group Photo
09:40-10:20	Congress Keynote Speech I: Prof. Jianhua Ma (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Stephen S. Yau)
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11:00-11:10	Coffee Break (Venue: The 2 nd Floor Conference Hall)
11:10-11:50	Congress Keynote Speech III: Prof. Witold Pedrycz (Venue: The 2 nd Floor Conference Hall, Chair: Prof. M. Jamal Deen)
11:50-12:30	Congress Keynote Speech IV: Prof. Yuanshun Dai (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Jianhua Ma)
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14:40-16:25	APEC Smart City Forum (Venue: The 2 nd Floor Conference Hall, Chair: Prof. M. Jamal Deen and Prof. Tianchu Yang)
	APEC Keynote Speech I: Prof. Jinjun Chen (14:40-15:05)
	APEC Keynote Speech II: Prof. Julien Bourgeois (15:05-15:30)
	APEC Keynote Speech III: Prof. Zhibo Pang (15:30-15:55)
	Forum Discussion Section (15:55-16:25)
16:25-16:35	Coffee Break (Venue: The 2 nd Floor Conference Hall)
16:05-17:35	GreenCom -02
18:30-20:30	Banquet (Venue: The 1 st Floor Dining Room, Chair: Prof. Stephen S. Yau)

GreenCom -02

1. Joint Optimization of Beamforming and Power Allocation for Multicell Downlink Systems
Nvlan Xie, Yunlong Cai, Minjian Zhao
2. Analysis on the output characteristics of wind farms in plateau and mountain areas
WEN Xiankui, FAN Qiang, LIN Chenghui, XIAO Yong, XU Meimei, GU Wei, XU Yutao, *LONG Qiufeng*
3. Energy Cost Minimization in Green Heterogeneous Cellular Networks with Wireless Backhubs
Qiang Yang, Xianjun Deng, Bang Wang
4. An Energy Efficient Confidential Information Coverage Hole Healing Algorithm in Hybrid Sensor Networks
Zujun Tang, Xianjun Deng, Lingzhi Yi, Bang Wang
5. Hybrid Parity-check and CRC Aided SCL Decoding for Polar codes
Qingping Yu, Zhiping Shi, Qinhuai Yan, Zhongpei Zhang
6. iCPBBOCO: A Combination Evaluation Algorithm based on the Extensional BBO
Kai Shi, HuiQun Yu, GuiSheng Fan, Fei Luo
7. Optimizing Energy Efficiency and Quality of Service in Large Scale Web Server Environments
Simon Kiertscher, Bettina Schnor
8. Detecting primary user emulation attacks based on PDF-BP algorithm in cognitive radio networks
Yueyun Chen, Liuqing Yang, Shuaishuai Ma, Xiaopan Yuan

GreenCom 2016 Technical Program

Sunday December 18th, 2016

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08:30-16:00	Registration (Venue: The 2 nd Floor Conference Hall)
09:00-09:40	Congress Keynote Speech VI: Prof. Tei-Wei Kuo (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Jinjun Chen)
09:40-10:20	Congress Keynote Speech VII: Prof. M. Jamal Deen (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Laurence T. Yang)
10:20-10:30	Coffee Break (Venue: The 2 nd Floor Conference Hall)
10:30-11:10	Congress Keynote Speech VIII: Prof. Stephen S. Yau (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Bin Guo)
11:10-11:50	Congress Keynote Speech IX: Prof. Shiyan Hu (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Mianxiong Dong)
11:50-14:00	Lunch (Venue: The 1 st Floor Dining Room)
14:00-15:30	GreenCom-03

GreenCom -03

1. Application of Adaptive Kalman Filter in High Dynamic GNSS Signal Carrier Tracking
Youmu Shi
2. List-Based Task Scheduling for Cloud Computing
Muhammad Fasih Akbar, Ehsan Ullah Munir, M. Mustafa Rafique, Zaki Malik, Samee U. Khan, Laurence T. Yang
3. Case Studies for Analyzing DLMS/COSEM-based Smart Meter Vulnerabilities in Korea
Seokjun Lee, Jongwan Kim, Hyunguk Yoo, Taeshik Shon
4. A Noise-Resistant UWB Channel Estimation Scheme Based on Compressed Sensing
Kexin Tian, Jian Li, Deqiang Wang
5. Energy-Efficient Real-Time Task Allocation in a Data Center
Mingming Zhang, Songyun Wang, Guoquan Yuan, Yefei Li, Zhuzhong Qian

CPSCoM 2016 Technical Program

Friday December 16th, 2016

Time\Venue	The 4 th Floor Conference Room (四楼会议室)
13:50-16:30	Registration (Venue: The First Floor Lobby)
14:20-15:50	CPSCoM -01
15:50-16:00	Coffee Break(Venue: The 4 th Floor Conference Room)
16:00-17:30	CPSCoM -02

CPSCoM -01

1. A Novel classifier —Weighted Features Cost-sensitive SVM
Ding Cheng, Min Wu
2. Design of motion capture system based on MEMS
Xiaochen Lai, Wenzhe Shi, Xin Liu, Huawei Zhang, Yu Zhao
3. A Novel and Reliable Workflow for Mobile Cloud Computing System Components Substitution
Peng Wang, Shao Hua Zhang, Yu Cao
4. Location Tracking of A Single inhabitant in Smart Home: A Discrete Event System Approach
Jianwei Wu, Min Xia, Shaolong Shu.
5. Optimizing Residue Number System on FPGA
Jiahe Liu, Bangtian Liu, Haohuan Fu

CPSCoM -02

1. Temporal Consistency Analysis of Mediation-aided Composition of Service Processes with Relation Network
Yanhua Du, Ze Yu, Benyuan Yang, Yang Wang
2. Management of Machine Room in Power System Based on Intelligent Monitoring
Jie Li, Yuanhong Zhong, Zhongyou Song, Yao Zhou, Tao Chen, Kunpeng Wang.
3. An Approach for Safety Analysis of Cyber-Physical System Based on Model Transformation
Mingfu Tuo, Xingshe Zhou, Gang Yang, Ning Fu
4. A Secure Collaborative Spectrum Sensing Strategy in Cyber-Physical Systems
Hui Lin, Jia Hu
5. A Context-Aware Scheduling Mechanism for Smartphone-based Personal Data Collection from Multiple Wearable Devices
Ao Guo, Jianhua Ma.

CPSCoM 2016 Technical Program

Saturday December 17th, 2016	
Time\Venue	The 4th Floor Conference Room (四楼会议室)
08:30-16:00	Registration (Venue: The First Floor Lobby)
09:00-09:20	Opening Ceremony (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Xingang Liu)
09:20-09:40	Group Photo
09:40-10:20	Congress Keynote Speech I: Prof. Jianhua Ma (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Stephen S. Yau)
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16:25-16:35	Coffee Break (Venue: The 2 nd Floor Conference Hall)
16:35-18:05	CPSCoM-03
18:30-20:30	Banquet (Venue: The 1 st Floor Dining Room, Chair: Prof. Stephen S. Yau)

CPSCoM -03

1. User Occupation Aware Conditional Restricted Boltzmann Machine Based Recommendation
Weizhu Xie, Yuanxin Ouyang, Jingshuai Ouyang, Wenge Rong, Zhang Xiong
2. Bandwidth Allocation Algorithm of IEEE802.16j Relay Network based on Utility Optimizing
Zhang Xinyou, Zhang Jun, Chen Leiyi
3. On the Effectiveness of Packet Sampling for Early Stage Traffic Identification
Lizhi Peng, Haibo Zhang, Bo Yang, Majing Su, Yuehui Chen
4. An optimized privacy inference attack based on smartwatch motion sensors
Jiazhu Dai, Yitong Duan, Fenglei Yang
5. An Improved Message Passing Schedule of BP-Based Decoding Algorithm for LDPC Codes
Jingru Dong, Hang Yin, Sijia Wang
6. An Attack-Resilient Middleware Architecture for Grid Integration of Distributed Energy Resources
Yifu Wu, Gihan J. Mendis, Youbiao He, Jin Wei, Bri-Mathias Hodge

CPSCom 2016 Technical Program

Sunday December 18th, 2016

Time\Venue	The 2 nd Floor Conference Hall (二楼会议大厅)	The 4 th Floor Conference Room (四楼会议室)
08:30-16:00	Registration(Venue: The 2 nd Floor Conference Hall)	
09:00-09:40	Congress Keynote Speech VI: Prof. Tei-Wei Kuo (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Jinjun Chen)	
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12:30-13:30	Lunch (Venue: The 1 st Floor Dining Room)	
13:30-15:00	---	CPSCom-04
15:00-15:10	Coffee Break (Venue: The 2 nd Floor Conference Hall)	
15:10-16:40	CPSCom-05	CPSCom-06

CPSCom -04

1. An Infrared and Visible Image Fusion Method Based on Non-Subsampled Contourlet Transform and Joint Sparse Representation
Guiqing He, Dandan Dong, Zhaoqiang Xia, Siyuan Xing, Yijing Wei
2. Packet Diversity-based Anomaly Detection System with OCSVM and Representative Model
Seokjun Lee, Hyunguk Yoo, Jungtaek Seo, Taeshik Shon
3. Inferring State Machine using Hybrid Teacher
Hyunguk Yoo and Taeshik Shon.
4. On the Impact of Packet Inter Arrival Time for Early Stage Traffic Identification
Wang Linlin, Lizhi Peng, Majing Su, Bo Yang, Xiaoqing Zhou
5. A Budget Balanced Energy Distribution Mechanism among Consumers and Prosumers in Microgrid
Mohammad Nazif Faqiry, Sanjoy Das
6. Visual Background Recommendation for Dance Performances Using Dancer-Shared Images
Jiqing Wen, Xiaopeng Li, James She, Soochang Park, Ming Cheung

CPSCom -05

1. Wall-Content Selection in Social Media: A Relevancy Feedback Scheme based on Explicit Crowdsourcing
Klimis Ntalianis, Nicolas Tsapatsoulis.
2. Predicting Human Mobility from Region Functions
Minjie Wang, Su Yang, Yi Sun, Jun Gao*
3. Study on WorldView-2 Image Fusion Method Based on NMF and HCS Transform
Guiqing He, Siyuan Xing, Zhaoqiang Xia, Dandan Dong, Yijing Wei
4. Predicting Traffic Congestions with Global Signatures Discovered by Frequent Pattern Mining
Jun Gao, Yi Sun, Weihua Liu, Su Yang

CPSCom -06

1. Proactive Service Discovery in Fog Computing using Mobile Ad Hoc Social Network in Proximity
Sander Soo, Chii Chang, Satish Narayana Srirama

2. ELR-DC: An Efficient Recommendation Scheme for Location based Social Networks
Ruheng Lv, Yufeng Wang, Qun Jin, Jianhua Ma
3. Enhanced In-Network Capabilities of Information Centric Networks for Emerging IoT Applications
Lijun Dong, Guoqiang Wang
4. Contrast-improved visual cryptography for general access structure
Xuehu Yan, Yuliang Lu, Lintao Liu, Song Wan, Wanmeng Ding, Hanlin Liu
5. Continuous commissioning of buildings: A case study of a campus building in Denmark
Elena Markoska, Muhyiddine Jradi, Bo Nregaard Jgensen
6. Discrimination of RF Harmonics Using Classification Restricted Boltzmann Machine
Hao Li, Kwangyul Kim, Yoan Shin
7. Multiple studies using license plate recognition system HD CCTV.
Jonghoon Kim, Jungha Jin, Keecheon Kim

iThings 2016 Technical Program

Friday December 16th, 2016

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16:00-17:30	iThings-05	iThings-02	iThings-04

iThings-01

1. Lightweight Key Management Protocols for Smart Grids
Vivy Suhendray, Yongdong Wu, Hendra Saputra, Zhigang Zhao, Feng Bao
2. Extraction, Rendering and Augmented Interaction in the Wire Assembly of Commercial Aircraft
Mark Rice, Hong Huei Tay, Jamie Ng, Senthil Kumar Selvaraj, Calvin Lim, Ellick Wu
3. Real-time Vehicle Signal Lights Recognition with HDR Camera
Jian-Gang Wang, Lubing Zhou, Zhiwei Song, Miaolong Yuan
4. A 2.4GHz Circular Polarization Rectenna with Harmonic Suppression for Microwave Power Transmission
Yanjie Cao, Weijun Hong, Li Deng, Shufang Li, Liang Yin
5. A Novel Design of Broadband Metamaterial Absorber Based on Sine-curved-surface Substrates
Mi Zhou, Weijun Hong, Li Deng, Shufang Li, Yanjie Cao
6. Analysis and Design of Real-time Micro-environment Parameter Monitoring System Based on Internet of Things
Bin Xu, Jianying Zheng, Qing Wang
7. Packet Reservation Multiple Access with Cross Multi-Frames in Cognitive Capillary Machine Type Communication Networks
Show-Shiow Tzeng, Ying-Jen Lin, Li-Shiang Wei, Feng Jyh Authur Su
8. Spectrum Allocation Algorithm Based on Improved Ant Colony in Cognitive Radio Networks
Zhipei Zhu, Jiangjingxian Chen, Shibing Zhang

iThings-02

1. Intrusion detection method based on support vector machine access of Modbus TCP protocol
Li Deng, Yisong Peng, Cancheng Liu, Xiaoshuai Xin
2. Remote Video Interception System Implemented on USRP
Yuan Zhou, Li Deng, Weijun Hong, Chen Zhang, Shufang Li, Zhen Wang
3. An OPC UA Sleepy Proxy Mechanism for Wireless Field Devices
Chenggen Pu, Heng Wang, Ping Wang
4. Software Security Considerations for IoT
Aki Koivu, Lauri Koivunen, Shohreh Hosseinzadeh, Samuel Laur, Sami Hyrynsalmi, Sampsa Rauti, Ville Leppen
5. Intelligent Plant Care Hydroponic Box Using IoTtalk
Tsung-Han Wu, Chun-Hao Chang, Yun-Wei Lin, Lan-Da Van, Yi-Bing Lin
6. An Efficient Channel Utilization Scheme for WIA-PA Industrial Wireless Networks Based on Link Skipping
Heng Wang, Lun Shao, Shuyang Xia, Ping Wang, Min Li
7. Data Security and Privacy challenges in adopting solutions for IOT
Supriya.S, Sagar.Padaki

iThings-03

1. SEMIOT: An Architecture of Semantic Internet of Things Middleware
Maxim Kolchin, Nikolay Klimov, Ivan Shilin, Daniil Garayzuev, Alexey Andreev, Dmitry Mourmstev
2. Local Connectivity Based Boundary Detection in Wireless Sensor Networks
Rakesh Matam, Shailendra Shukla, Gajendra Tyagi
3. Lightweight Data Security Model for IoT Applications: A Dynamic Key Approach
Manish Kumar, Sunil Kumar, Rajat Budhiraja, M.K. Das, Sanjeev Singh
4. Blockchain as a Service for IoT
Mayra Samaniego, Ralph Deters
5. Adaptive Adjustment of Compressed Measurement for Energy-Efficient Data Gathering in WSNs
Zhipeng Nie, Dandan Wang, Donghao Wang, Nan Wang, Jiangwen Wan
6. Social-based Broadcast in Cognitive Radio Networks: A Network Coding Perspective
Xiaoxiong Zhong, Renhao Lu, Li Li
7. The Internet of Vehicles based on 5G Communications
Damigou Kombate, Wanglina

iThings-04

1. Smart World of Internet of Things (IoT) and It's Security Concerns
Jonathan Charity Talwana
2. Research of Secure Service Composition based on Semantic Security Policy
He Zhengqiu, Xue Fang-Xia, Liu Wen-Fu, He Rong-Mao and Xu Zhong-Fu.
3. Contrasting Internet of Things and Wireless Sensor Network from a conceptual overview
Johana Andrea Manrique Hernandez, Johann Smith Rueda Rueda and Jesus Martin Talavera Portocarrero.
4. A New Outlier Detection Algorithm Based on Kernel Density Estimation for ITS
Yiwen Xu, Ningbin Xu, Xinxin Feng
5. Automatic Ocular Disease Screening and Monitoring Using a Hybrid Cloud System
Fengshou Yin, Beng Hai Lee, Ai Ping Yow, Ying Quan, Damon Wing Kee Wong
6. WiseWare: A Device-to-Device-based Business Process Management System for Industrial Internet of Things
Jakob Mass, Chii Chang, Satish Narayana Srirama
7. Cyber-enabled Traditional Chinese Medicine
Yujia Chen, Yifeng Peng, Leiqi Wang, Yuanyu Zhang, Tao Zhu

iThings -05

1. SDGR: An SDN-based Geographic Routing Protocol for VANET
Xiang Ji, Huiqun Yu, Guisheng Fan and Wenhao Fu.
2. A Terahertz RF Selective Switch Based on Graphene
Xiaoyuan Ma, Weijun Hong, Shufang Li, Liang Yin, Li Deng
3. Secure Communication Based on A Modified RB-HARQ Protocol
Qinyu Zou, Bangning Zhang, Zhan Ye and Daoxing Guo.
4. Efficient and Timely Querying of Massive Trajectory Data in Internet of Vehicles
Yiwen Xu, Qihao Zou and Xinxin Feng .
5. A Distributed Graph Database for the Data Management of IoT Systems
Kosei Ueta, Xiaoyong Xue, Yukikazu Nakamoto and Sena Murakami.
6. Design and Evaluation of Vibrating Footwear for Navigation Assistance to Visually Impaired People
Qianli Xu, Tian Gan, Shue Ching Chia, Liyuan Li, Joo-Hwee Lim, Phyo Kyaw Kyaw
7. Future Intelligent Tai Chi Suit
Yaodong Yang, Xing Wei, Xiujun Hu, Runlin Cai, Jitong Zhao
8. iHRV: Cloud-based Mobile Heart Rate Variability Monitoring System
Jiehan Zhou, Jukka Riekk, Weishan Zhang, Tie Qiu

iThings 2016 Technical Program

Saturday December 17th, 2016

Time/Venue	The 5 th Floor Conference Room (五楼会议室)	The 6 th Floor Conference Room (六楼会议室)
08:30-16:00	Registration (Venue: The First Floor Lobby)	
09:00-09:20	Opening Ceremony (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Xingang Liu)	
09:20-09:40	Group Photo	
09:40-10:20	Congress Keynote Speech I: Prof. Jianhua Ma (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Stephen S. Yau)	
10:20-11:00	Congress Keynote Speech II: Prof. Yingchang Liang (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Mianxiong Dong)	
11:00-11:10	Coffee Break (Venue: The 2 nd Floor Conference Hall)	
11:10-11:50	Congress Keynote Speech III: Prof. Witold Pedrycz (Venue: The 2 nd Floor Conference Hall, Chair: Prof. M. Jamal Deen)	
11:50-12:30	Congress Keynote Speech IV: Prof. Yuanshun Dai (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Jianhua Ma)	
12:30-14:00	Lunch (Venue: The 1 st Floor Dining Room)	
14:00-14:40	Congress Keynote Speech V: Dr. Yu Zheng (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Zhikui Chen)	
14:40-16:25	APEC Smart City Forum (Venue: The 2 nd Floor Conference Hall, Chair: Prof. M. Jamal Deen and Prof. Tianchu Yang)	
	APEC Keynote Speech I: Prof. Jinjun Chen (14:40-15:05)	
	APEC Keynote Speech II: Prof. Julien Bourgeois (15:05-15:30)	
	APEC Keynote Speech III: Prof. Zhibo Pang (15:30-15:55)	
	Forum Discussion Section (15:55-16:25)	
16:25-16:35	Coffee Break (Venue: The 2 nd Floor Conference Hall)	
16:35-18:05	iThings-06	iThings-07
18:30-20:30	Banquet (Venue: The 1 st Floor Dining Room, Chair: Prof. Stephen S. Yau)	

iThings -06

1. A agentified use of the Internet of Things
Jo ã Kwan, Yassine Gangat, Denis Payet and R ény Courdier.
2. An IoT Application for Inventory Management with A Self-Adaptive Decision Model
Lizong Zhang, Nawaf Alharbe and Anthony Atkins.
3. Light Weight Two-level Session Key Management for End User Authentication in Internet of Things
Zahid Mahmood, Huansheng Ning, AtaUllah Ghafoor
4. The Timed Abstract State Machine based test requirement auto generation for embedded systems
Ruan Chenglin, Wang Jinbo
5. A Time-sensitive Collaborative Filtering Model in Recommendation Systems
Limei Sun, Ejike Ifeanyi Michael, Shen Wang, Yue Li
6. A Beautiful Story behind the Battle of Privacy
Tianyuan Liu, Guoyun Li, Yaozhi Zhang, Yuqing Sun

iThings -07

1. Research of Food Traceability Technology Based on the Internet of Things Name Service
WANG Zhi-qian, Tian Ye, Xiong An-ping

2. A Smart Gateway Framework for IOT Services
Yann-Hang Lee, Shankar Nair
3. Obfuscating Software Puzzle for Denial-of-Service Attack Mitigation
Yongdong Wu, Vivy Suhendray, Hendra Saputra, Zhigang Zhao
4. A Collision Free Neighbor Discovery Protocol for Wireless Positioning Applications
Wei Liu, Xue-en Li, Yang-gao Ou, Bo You
5. I am Joe's Fridge: Scalable Identity in the Internet of Things
Prashant Anantharaman, Kartik Palani, David Nicol, Sean W. Smith
6. An Improved Ant Colony Optimization and Its Application on TSP Problem
Wei Luo
7. Comparison Analysis of Classifiers for Speech under Stress
Xiao Yao, Ning Xu, Mingsheng Gao, Aiming Jiang, Xiaofeng Liu

iThings 2016 Technical Program

Sunday December 18th, 2016

Time/Venue	The 3 rd Floor Conference Room (三楼会议室)	The 5 th Floor Conference Room (五楼会议室)	The 6 th Floor Conference Room (六楼会议室)
08:30-16:00	Registration(Venue: The 2 nd Floor Conference Hall)		
09:00-09:40	Congress Keynote Speech VI: Prof. Tei-Wei Kuo (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Jinjun Chen)		
09:40-10:20	Congress Keynote Speech VII: Prof. M. Jamal Deen (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Laurence T. Yang)		
10:20-10:30	Coffee Break (Venue: The 2 nd Floor Conference Hall)		
10:30-11:10	Congress Keynote Speech VIII: Prof. Stephen S. Yau (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Bin Guo)		
11:10-11:50	Congress Keynote Speech IX: Prof. Shiyan Hu (Venue: The 2 nd Floor Conference Hall, Chair: Prof. Geyong Min)		
11:50-13:30	Lunch (Venue: The 1 st Floor Dining Room)		
13:30-15:00	---	iThings-08	iThings-09
15:00-15:10	Coffee Break (Venue: The 2 nd Floor Conference Hall)		
15:10-16:40	iThings-10	iThings-11	iThings-12

iThings -08

- Performance Analysis of Split Preamble RAN Over-load Control Method for Massive Access of M2M Devices in LTE Networks
Ameneh Pourmoghadass, P. G. Poonacha and Neda Khoenihay.
- An Enhanced Friendship-Based Routing Scheme Exploiting Regularity in an Opportunistic Network
Jihyeun yoon, SUN-KYUM KIM, JUN-YEOP LEE, KI-YOUNG JANG
- An Efficient Routing Protocol based on Data Posting in an Opportunistic Network
Jihyeun yoon, Jae-Ho Choi
- Supporting IoT Multi-Tenenacy on Edge Devices
Mayra Samaniego, Ralph Deters
- Performance Analysis of Wireless Powered MIMO Communications Using Stochastic Geometry
Siyuan Zhou, Chengxiang Li
- 3D-LSR: A New Model for Skeletal Representation and Segmentation
Di Zhang, Xiaojuan Ban, Di Wu, Hao Wang

iThings -09

- Comprehensive GPSR Routing in VANET Communications with Adaptive Beacon Interval
Jia Li, Ping Wang, Chao Wang
- Intelligent Guardrails: An IoT Application for Vehicle Traffic Congestion Reduction in Smart City
Mohammad Reza Jabbarpour, Armin Nabaee, Houman Zarrabi
- User Location Prediction by Diffusion-type Estimation using Location-based SNS Check-in Data
Ken-ichiro Nishioka, Yoshitatsu Matsuda, Kazunori Yamaguchi
- Real-Time Energy Management Optimization for Smart Household
Leehter Yao, Jin-Yi Shen, Wei Hong Lim
- A Load Balance Channel Auction Mechanism in Multi-interface Multi-channel Wireless Mesh Networks
Baohong Ma, Shibiao He, Tao Liang, Hongjuan Wang, Wenjing Zhang
- Elastic Management of Physical Spaces and Objects in Multi-Hospital Environments

Rodrigo Righi, Cristiano Costa, Gustavo Rostirolla, Erico Rocha and Murillo Goulart

7. Analysis on Physical-Layer Security for Internet of Things in Ultra Dense Heterogeneous Networks
Zhihao Zhong, Jianhua Peng, Kaizhi Huang, Zhou Zhong

iThings -10

1. Goldfish: In Memory Massive Parallel Processing SQL Engine Based On Columnar Store
Jin Wang
2. Smartphone-based Place Profiling in a Privacy-Preserving Manner
Miao Lin, Manoranjan Dash, Watt Pei Yi, Yunye Jin
3. Autonomous Vehicle Security: A Taxonomy of Attacks and Defences
Vrizlynn L. L. Thing, Jiayi Wu
4. Multi-Level Ultra Low-Power Mode Support Mechanisms for Wearable Device
Hyoung Jun Park, Duk-Kyun Woo, Seon-Tae Kim, Pyeong-Soo Mah
5. The Transreality Interaction Platform: Enabling Interaction Across Physical and Virtual Reality
Kyle A. Martin, Joseph J. LaViola Jr.
6. Enhancing Lightweight M2M Operations for Managing IoT Gateways
Bilhanan Silverajan, Mert Ocak, Jaime Jimenez, Antti Kolehmainen

iThings -11

1. A Novel Confident Information Coverage Hole Detection Algorithm in Sensor Networks
Zenghui Zou, Xianjun Deng, Lingzhi Yi, Zujun Tang, Minghua Wang, Xueyu Gong
2. Improved Sparsest Random Scheduling for Compressive Data Gathering under Unreliable Link in Wireless Sensor Networks
Zhijie Fei, Fang Lin, Qiang Zhang, Junying Chen, Jiangwen Wan
3. A Reliable MAC Protocol for Hybrid Wireless Sensor Networks
Sijun Dou, Danpu Liu
4. Energy-Efficient Mobile Data Acquisition using Opportunistic Internet of Things Gateway Services
Mohan Liyanage, Chii Chang, Satish Narayana Srirama
5. SmartDog: Real-time Detection of Smartphone Theft
Shan Chang, Ting Lu, Hui Song
6. An IoT approach for Wireless Sensor Networks applied to e-health environmental monitoring
Julian Colorado, Jose Cabra, Diego Castro, Diego Mendez, Luis Trujillo

iThings -12

1. Self-Learning Fuzzy Controller-Based Energy Management for Smart Home
Leehter Yao, Wei Hong Lim, Chien-Chi Lai
2. Queueing Analysis for Delay/Disruption Tolerant Networks with Random Link Interruptions
Yanglong Wu, Zexue li
Mohan Liyanage, Chii Chang, Satish Narayana Srirama
3. Maximizing Network Coding Opportunity through Buffer Management in Wireless Networks
Qinglong Liu, Gang Wang, Gang Feng, Yantao Guo, Qian Yao
4. Novel Hybrid Scheme of Solar Energy Forecasting for Home Energy Management System
Leehter Yao, Teng-Shih Tsai
5. Graph based clustering for two-tier architecture in Internet of things
J Sathish Kumar, Mukesh A Zaveri
6. Can SDN technology be transported to software-defined WSN/IoT?
Thi Minh Chau Nguyen, Doan B Hoang, Zenon Chaczko
7. SmartFDS: design and implementation of falling detection system on smartphones
Xiao Li, Yufeng Wang, Qicai Zhou, Qun Jin

General Information

Registration Desk

The Registration Desk will be open to assist you at the following times.

- Friday, December 16th, 2016, 2:00 pm - 4:30 pm
- Saturday, December 17th, 2016, 8:30 am -4:00 pm
- Sunday, December 18st, 2016, 8:30 am -4:00 pm

Venue: UESTC Guest House, No.2, Section 2, North Jianshe Road, Chenghua District, Chengdu, China

Name Badges and Meal Tickets

All delegates, sponsors and speakers of the conference will be provided with a name badge, to be collected upon registration. This badge must be worn at all times as it is your official pass to all technical sessions of the conferences and coffee breaks, and banquet.

There are 3 different meal tickets for 2 lunches on Dec. 17 and Dec. 18, and banquet on Dec. 17, respectively.

Presentation Information

Language

Please make your presentation in English.

Checking In

Session Chairs are requested to register at least one hour before the session.

Setting Up

You are required to arrive at the room (in which you will deliver your talk) **15 minutes before the commencement of the session.** Upon arrival please confirm your attendance with the Session Chair and familiarize yourself with the venue.

Please bring with you a single paragraph summary, including your name (as you would like to be introduced), affiliation and research interests (maximum 100 words), which is used for introductory purposes prior to your talk. Please present this to the Session Chair upon arrival.

Upon arrival, please copy your slide file to the presentation computer. If you plan to use your own equipment, please ensure it is ready to go prior to the session commencing, since there is very little time between presentations. If you have requested optional equipment, ensure that it is in the room. In the larger conference rooms please, make sure you familiarize yourself with the audio system. For all assistance, please speak to the Session Chair.

Timing

Please ensure that you check the program for the exact time of your session and where your paper falls within the session.

It is recommended that all the conferences' paper presentations take about 15 minutes including 5 minutes for question time. However, the Session Chairs will determine the exact presentation time for each paper, based on the number of presentations in each session. The Session Chairs will ensure that you do not over-run the time allocated.

Please keep strictly to this time guideline

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Emergency Service (Fire): 119

Emergency Service (Ambulance): 120

Conference email: ithings2016@outlook.com, greencom2016@outlook.com, cpscom2016@outlook.com, smartdata2016@outlook.com

WeChat Official Account:



The Conference Venue

UESTC Guest House

Addr.: No.2, Section 2, North Jianshe Road, Chenghua District, Chengdu, China

