



IDCS 2016

The 9th International Conference on Internet and Distributed Computing Systems

September 28-30, 2016

Wuhan, China

<http://sle.whut.edu.cn/IDCS2016/>

Conference Program

The conference sessions will be held in the Conference Centre, Chutian Guangdong International Hotel.

Tuesday, September 27, 2016

<i>Time</i>	<i>Activity</i>
pm	Arrival: accommodation check-in at the reception of the Chutian Guangdong International Hotel
17:00 – 18:30	Conference Registration

Wednesday, September 28, 2016

<i>Time</i>	<i>Activity</i>
08:00 – 17:00	Conference Registration
09:00 – 09:30	Opening Plenary (Room A)
09:30 – 10:20	Keynote Speech: “An Application of the IoT in Belt Conveyor Systems”, Prof. Gabriel Lodewijks, Delft University of Technology, The Netherlands (Room A)
10:20 – 10:30	Coffee\Tea break
10:30 – 11:20	Keynote Speech: “Towards Multi-Layer Interoperability of IoT Platforms: the INTER-IoT approach”, Prof. Giancarlo Fortino, DIMES-University of Calabria, Italy (Room A)
11:20 – 11:30	Coffee\Tea break
11:30 – 12:20	Keynote Speech: “Developments and Prospects of Intelligent Water Transport in China”, Prof. Xinping Yan, Wuhan University of Technology, China (Room A)
12:30 – 13:30	Lunch
14:00 – 15:40	Session B1: Room B Session C1: Room C Session D1: Room D
15:40 – 16:00	Tea break
16:00 – 17:00	Session B2: Room B Session C2: Room C Session D2: Room D
17:30 –	Dinner

Thursday, September 29, 2016

<i>Time</i>	<i>Activity</i>		
09:00 – 09:50	Keynote Speech: “IoT and Big Data in Intelligent Buildings”, Prof. Weiming Shen, National Research Council Canada,Canada (Room A)		
09:50 – 10:00	Coffee\Tea break		
10:00 – 10:50	Keynote Speech: “Semantic Web Technology for Industrial Internet of Things”, Prof. Haibin Yu, Shenyang Institute of Automation, Chinese Academy of Sciences, China (Room A)		
10:50 – 11:00	Coffee\Tea break		
11:00 – 11:50	Keynote Speech: “Security and Privacy in Social Networks”, Prof. Yang Xiang, Centre for Cyber Security Research, Deakin University, Australia (Room A)		
12:00 – 13:30	Lunch		
14:00 – 15:20	Session B3: Room B	Session C3: Room C	Session D3: Room D
15:20 – 15:30	Tea break		
15:30 – 17:00	Session B4: Room B	Session C4: Room C	Session D4: Room D
17:30 –	Banquet		

Friday, September 30, 2016

<i>Time</i>	<i>Activity</i>
09:00 – 09:50	Career Forums
09:50 – 10:00	Coffee\Tea break
10:00 – 10:50	Career Forums
11:00 – 12:00	Closing Ceremony
12:00 – 14:00	Lunch
14:00 –	Departure

Note: Room A: The meeting room – Chutian Palace
Room B: The meeting room – Fengming 1
Room C: The meeting room – Fengming 2
Room D: The meeting room – Fengwu 1

Useful Information

Local Airports

- Wuhan Tianhe International Airport (35.4 km)
Approximate fares: RMB: 101

Train Stations

- Wuhan Railway Station (10km)
Approximate fares: RMB: 24
- Wuchang Railway Station (8km)
Approximate fares: RMB: 19
- Hankou Railway Station (14.9)
Approximate fares: RMB: 39

Session Presentation

Session B1: Body Sensor Networks and Wearable Devices

Chair: Zhelong Wang, Meng Yu

- 21 Continuous Gesture Recognition Based on Hidden Markov Model. Meng Yu, Gang Chen, Zilong Huang, Qiang Wang and Yuan Chen.
- 47 A New Modeling Method of Photoplethysmography Signal Based on Lognormal Basis. Yun Luo, Wenfeng Li, Wenbi Rao, Xiuwen Fu, Lin Yang and Yu Zhang.
- 61 A Neuro-Fuzzy System for Classifying Fatigue Degree of Wheelchair User. Xinyun Hu, Raffaele Gravina, Wenfeng Li and Giancarlo Fortino.
- 69 Detecting Novel Class for Sensor-based Activity Recognition using Reject Rule. Chuhaolun Deng, Wenjing Yuan, Zhiwen Tao and Jingjing Cao.
- 70 SwimSense: Monitoring Swimming Motion Using Body Sensor Networks. Jiaxin Wang, Zhelong Wang, Fengshan Gao and Ming Guo.

Session B2: Application of Internet of Things (Part 1)

Chair: Guofu Luo, Guangyou Yang

- 15 Design of Distributed Logistics Vehicle Monitoring System with High Load. Shengwu Xiong, Na Wang, Li Kuang, Pengfei Duan and Fengjian Yu.
- 32 Design and Implementation of Work-in-Process Management System Based on RFID Technology. Wenchao Yang, Guofu Luo and Wenfeng Li.
- 33 Improved CTP Routing Protocol Based on Ant Colony Algorithm. Guangyou Yang, Hao Chen and Xiong Gan.
- 63 Distributed Cooperative Flocking Control for Multiple Mobile Robots Based on IoT. Qiang Wang, Aosong Li and Tian Zhu.

Session B3: Distributed Computing and Big Data (Part 1)

Chair: Jingtao Sun, Xinyun Hu

- 27 Energy Management Policies in Distributed Residential Energy Systems. Sisi Duan and Jingtao Sun.
- 40 LUTMap: A Dynamic Heuristic Application Mapping Algorithm Based on Lookup Tables. Thomas Canhao Xu and Ville Leppänen.
- 46 Distributed Real-Time Database for the Intelligent Community. Xian Zhang, Wenbi Rao, Xiaosong Zheng, Chunyang Rao, Congcong Ma and Chao Zeng.

Session B4: Distributed Computing and Big Data (Part 2)

Chair: Yin Zhang, Zhongtang Zhao

- 55 Big Sensor Data: A Survey. Yin Zhang, Wei Li, Ping Zhou, Jun Yang and Xiaobo Shi.
- 56 Predicting Telecommunication Customer Churn Using Data Mining Techniques. Diana AlOmari and Mohammad Mehedi Hassan.
- 60 SLOSELM: Self Labeling Online Sequential Extreme Learning Machine. Zhongtang Zhao, Li Liu, Lingling Li and Qian Ma.

Session C1: Cloud Computing and Networking

Chair: Giuseppe Di Fatta, Rajat Saxena

- 13 SDNFV-Based Routing Service Composition Model. Chao Bu, Xingwei Wang, Lianbo Ma and Min Huang.
- 26 Service Model Design and Application of Product Design and Component Procurement for Small and Medium Sized Concrete Mixer Manufacturers Based on Cloud Manufacturing.

Guofu Luo, Xianglong Yang and Jun Ma.

- 48 A Novel Access Control Model for Cloud Computing. Rajat Saxena and Somnath Dey.
- 58 Agreement in Epidemic Information Dissemination. Mosab Aiyad, Amogh Katti and Giuseppe Di Fatta.
- 62 Cloud-Based Wheelchair Assist System for Mobility Impaired Individuals. Congcong Ma, Wenfeng Li, Jingjing Cao, Raffaele Gravina and Giancarlo Fortino.

Session C2: Application of Internet of Things (Part 2)

Chair: Bin Li, Yun Luo

- 67 Logistics Vehicle Travel Preference of Interest Points Based on Speed and Accessory State. Shengwu Xiong, Li Kuang, Pengfei Duan and Wei Shi.
- 76 Tools for Ontology Matching—Practical Considerations from INTER-IoT Perspective. Maria Ganzha, Marcin Paprzycki, Wiesław Pawłowski, Paweł Szmeja, Katarzyna Wasielewska and Giancarlo Fortino.
- 77 A Partition Berth Allocation Scheduler Based on Resource Utilization and Load Balancing. Bin Li, Yu Zhang, Xiaolei Liang, Lin Yang.

Session C3: Wireless Sensing and Controlling Networks (Part 1)

Chair: Bin Lei, Ying Duan

- 14 BKR-SIFT: A High-Precise Matching Algorithm. Jiancai Wu, Shunyan Wang and Wenchi Sun.
- 23 Moving Object Detection for Driving Assistance System Based on Improved ORB Feature Matching. Jun Gao and Honghui Zhu .
- 24 Swarm Robots Formation Control Based on Wireless Sensor Network. Bin Lei and Hao Chen.
- 25 Reliable Data Transmission Method for Hybrid Industrial Network Based on Mobile Object. Ying Duan, Wenfeng Li, Xiuwen Fu and Lin Yang.

Session C4: Wireless Sensing and Controlling Networks (Part 2)

Chair: Junqi Zhang, Jie Mei

- 31 A V-BLAST-Based Cooperative MIMO Transmission Scheme for Heterogeneous Wireless Sensor Networks. Guangyou Yang, Jun Li and Xiong Gan.
- 34 Analysis of the Intelligent Call System Based on the Emergency Rescue in China. Tianping Zhang, Lijie Li, Wenfeng Li and Jie Mei.
- 52 Distance Thresholds Analysis for Cooperative Beamforming in WSNs . Xiong Gan, Hong Lu and Guangyou Yang.
- 59 In-Transit Status Perception of Freight Containers Logistics Based on Multi-sensor Information. Qingxia Li, Xiaohua Cao and Huan Xu.
- 78 A Sliding Window Method for Online Tracking of Spatiotemporal Event Patterns. Junqi Zhang, Shanwen Zhu, Di Zang and Mengchu Zhou.

Session D1: Distributed Scheduling and Optimization

Chair: Lanbo Zheng, Xiaolei Liang,

- 22 A Modified Genetic Algorithm for Agricultural By-products Logistics Delivery Route Planning Problem. Guofu Luo, Dayuan Wu, Jun Ma and Xiaoyu Wen.
- 35 Multi-objective Optimization of Warehouse System Based on the Genetic Algorithm. Ting Wu, Hao Wang and Zhe Yuan .
- 42 A Constraint Programming Based Method for Stockyard Management Problem. Can Wen and Lanbo Zheng.

- 66 Business Process Reengineering of Road Passenger Transport Based on Unified Modeling Language Method. Xingxing Li, Yan Chen and Wenfeng Li.
- 68 A Method Based on SNSO for Solving Slot Planning Problem of Container Vessel Bays. Xiaolei Liang, Bin Li, Wenfeng Li, Yu Zhang and Lin Yang.

Session D2: Smart Networked Transportation and Logistics (Part 1)

Chair: Xiaoli Jiang, Jiujun Cheng

- 18 Optimization Model of the Inland Bridge Navigation Hole. Yanfeng Wang, Liwen Huang and Yaotian Fan.
- 41 Key Properties of Connectivity in Vehicle Ad-hoc Network. Jiujun Cheng, Pengyu Qin, Mengchu Zhou, Zhenhua Huang and Shangce Gao.
- 49 A Novel Adaptive Negotiation Strategy for Agricultural Supply Chain Centered on Third Party Logistics. Wenjing Guo, Wenfeng Li, Weiming Shen, Xiaoli Jiang and Gabriel Lodewijks.

Session D3: Smart Networked Transportation and Logistics (Part 2)

Chair: Xiaoli Jiang, Xin Tang

- 50 A Facility Location Problem for the Design of a Collaborative Distribution Network. Xin Tang, Fabien Lehuédé and Olivier Péton.
- 53 Urban Traffic Congestion Based on System Dynamics: Taking Wuhan City as an Example. Kaikai He and Yan Chen.
- 54 Sensors Deployment in Logistics System by Genetic Invasive Weed Optimization. Yanjun Shi, Luyang Hou, Xueyan Sun and Yaohui Pan.
- 71 Development Strategy of Agriculture Product Logistic in Guizhou Province on the Transportation Network Context. Shanmei Song, Meirong Qiu, Wenfeng Li and Qiaoxing Li.

Session D4: Smart Networked Transportation and Logistics (Part 3)

Chair: Xiaoli Jiang, Shanmei Song

- 72 The Development Strategies of Logistics in Chongqing City Based on the Complex Traffic Network. Shanmei Song, Shuaijun Chen, Wenfeng Li and Qiaoxing Li.
- 74 The Performance Appraisal of Port Logistics Informationization Hongming Chen and Yan Chen.
- 75 Synergy Development in New Energy Automobile Industry. Zhang Yan.