

# Desheng Zhang

## CV One-Page Highlight

### I. Leadership and Administrative Roles

- **Research Group ARSENAL:**  
13 Ph.D. Students (3 Alumnus, 1 for Academy, 2 for Industry), 4 Master Alumna
- **Multi-University Projects and Proposals:**  
Lead PI for a funded project with 7 Co-PIs from 4 Universities and 4 Disciplines;  
Lead PI for 3 funded projects with 2 Co-PIs from 2 Universities and 2 Disciplines;  
Lead PI for a proposal with 13 Co-PIs from 6 Universities and 5 Disciplines (Pending).
- **Key Contribution to Rutgers CS Ranking:**  
According to CS Ranking (<http://csrankings.org/>), Rutgers CS as of 7/29/2020 is ranked as **No. 1** U.S. Institutions in the area of **Ubiquitous / Mobile Computing** based on top publications from 2016 to 2020 including UbiComp, MobiCom, MobiSys, and SenSys.

### II. Funding

- Raised as PI more than \$4 million from 2018 to 2020;
- Raised as Co-PI more than \$1.5 million from 2018 to 2020;
- Diverse Funding Sources: NSF (4 Programs), DoT, and Industry (Google).

### III. Mentoring and Teaching

- Taught 7 Courses (520 students in total) and developing one new course in 4 Years;
- Mentoring 10 PhD Students (2.5 per year including 2 females);
- Mentoring 3 Master Students and 2 Visiting Scholars;
- Mentoring 9 REU students (Research Experience for Undergrad, 3 Female);
- Mentoring 24 Undergrad Independent Study (6 Female, 3 African American, 1 Hispanic);
- Serving Thesis Committee for 26 PhD Candidates.

### IV. Research, Impact, and Visibility

- 8 Papers/Poster/Thesis Awards (UbiComp, WWW, ICCPS, INFOCOM, CYBERC)
- 90 Peer-reviewed Publications (Conferences and Journals);
- 63 Invited Talks and Panels;
- 9 Rutgers Internal Services: 2 Chairs & 7 Committee Members;
- 21 Technical Program Committees and Journal Editorship (ACM IMWUT & TOSN);
- 7 Conference/Workshop Co-Chairmanship (General, Organization, Program);
- 23 Conference and Journal Paper Reviews;
- 1 Book Invitation by Springer Nature on Cyber-Physical Systems and Smart Cities;
- Research Deployed in a Nationwide Platform with 6.7 million users (SIGCOMM'21).

# CURRICULUM VITAE

## Desheng Zhang

### Work Address:

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## I. Biosketch

### I.1 Research Interests

- Broadly interested in bridging **Cyber-Physical Systems** (also known as **Internet of Things**) and **Data Science** from **Mobile** and **Ubiquitous Computing** Perspectives with Applications to **Smart Cities**.
- Focused on the life cycle of **data-driven urban systems**, from sensing to prediction to decision-making via mobile data collection, cross-domain data fusion, heterogeneous model integration, visual data analytics, system optimization, deployment and validation.

### I.2 Employment and Visiting

- Visiting Professor of Connection Science 09.2020-Now  
*Media Lab, Massachusetts Institute of Technology, USA*
- Assistant Professor of Computer Science 09.2016-Now  
*Rutgers, the State University of New Jersey, USA*
- Visiting Scholar 05.2018-09.2018  
*Peking University, Big Data Research Center, Beijing China*
- PostDoc Research Associate 11.2015-08.2016
- Dissertation Fellow 09.2014-10.2015
- Research Assistant 09.2012-08.2014
- ADC Research Fellow 09.2011-08.2012  
*University of Minnesota, Minneapolis, MN, USA*
- Visiting Student 1.2011-8.2011  
*Shenzhen Institute of Advance Technology, Shenzhen, China*

### I.3 Education

- Ph.D of Computer Science 9.2011-10.2015  
*University of Minnesota, USA*
- Master of Computer Applied Technology 9.2008-6.2011  
*Heilongjiang University, China*
- Bachelor of Software Engineering 9.2004-6.2008  
*Heilongjiang University, China*

## II. Awards

- *Best Paper Award*, ICCPS 2021 Committee 04.2021
- *UbiComp Best-in-Session Audience Award* 10.2020
- *Rutgers Research Council Award* 07.2019
- *Best Paper Award Candidate*, the Web Conference Program Committee 04.2019
- *Rutgers Global Center Research Award* 06.2017
- *Rutgers Research Council Award* 07.2017
- *Best Paper Award Candidate*, ICCPS 2015 Committee 03.2015
- *Chinese Government Scholarship for Outstanding Students* 09.2014
- *Doctoral Dissertation Fellowship Award*, University of Minnesota 04.2014
- *Excellent Thesis Research Travel Award*, University of Minnesota 11.2013
- *Best Thesis Award in Computer Science*, Heilongjiang Dept. of Education 12.2011
- *Best Poster Award*, INFOCOM Committee 04.2011
- *Excellent Researcher Award*, Chinese Academy of Sciences 04.2011
- *ADC Fellowship Award*, University of Minnesota 04.2011
- *Best Paper Award*, CWSN Committee 10.2010
- *Best Paper Runner-up Award*, CyberC Committee 10.2010
- *Best Thesis Award*, Heilongjiang University 06.2008
- *National Scholarship*, China Ministry of Education 11.2007
- *Pacemaker Scholarship*, Heilongjiang University 11.2006
- *First-Class Scholarship*, Heilongjiang University 11.2005

### III. Publications

Mainly publishing in top Ubiquitous and Mobile Computing Conferences, e.g., IMWUT/UbiComp, MobiCom, NSDI, SenSys, WWW, ICDE, ICDCS, ICCPS, IPSN, RTSS, IROS, ACM/IEEE Transactions.

#### **III.1 Selected Conference Paper**

Authors with \* are students working with Desheng

- [C01] Yi Ding\*, Yu Yang\*, W.Jiang, Y.Liu, Tian He, and **Desheng Zhang**.  
Nationwide Deployment and Operation of a Virtual Arrival Detection System in the Wild.  
To appear in ACM **SIGCOMM'21**. 55/241=22%.
- [C02] Yi Ding\*, Ling Liu, Yu Yang\*, Yunhuai Liu, **Desheng Zhang**, and Tian He  
A Lifetime Story of a 3-Year-Old Operational Wireless Beacon System in the Wild.  
In USENIX Symposium. on Networked Systems Design & Implementation (**NSDI'21**). 19/114=16%
- [C03] Zhihan Fang\*, G. Yang\*, D. Zhang, X. Xie\*, Guang Wang\*, Yu Yang\*, F.Zhang\* and **Desheng Zhang**  
MoCha: Large-Scale Driving Pattern Characterization for Usage-based Insurance.  
In ACM Conference on Knowledge Discovery and Data Mining (**SIGKDD'21**). 138/705=19%
- [C04] Guang Wang\*, Zhou Qin\*, Shuai Wang, Huijun Sun, Zheng Dong, and **Desheng Zhang**  
Joint Real-Time Repositioning and Charging for Electric Carsharing with Dynamic Deadlines.  
In ACM Conference on Knowledge Discovery and Data Mining (**SIGKDD'21**). 138/705=19%
- [C05] Zhihan Fang\*, Guang Wang\*, Xiaoyang Xie\*, Fan Zhang, **Desheng Zhang**  
Urban Map Inference by Pervasive Vehicular Sensing Systems with Complementary Mobility  
To appear in ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'21**)
- [C06] Guang Wang\*, Harsh Rajkumar Vaish\*, Huijun Sun, Jianjun Wu, Shuai Wang, **Desheng Zhang**  
Mixing Qualitative and Quantitative User Studies for Online Car Sharing Systems  
To appear in ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'21**)
- [C07] Zhou Qin\*, YikunXian, Fan Zhang, **Desheng Zhang**  
MIMU: Mobile WiFi Usage Inference by Mining Diverse User Behaviors  
To appear in ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'21**)
- [C08] Dong Zhao, Zijian Cao, Chen Ju, **Desheng Zhang**, Huadong Ma  
D2Park: Diversified Demand-aware On-street Parking Guidance  
To appear in ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'21**)
- [C09] Song Yiwei\*, Yunhuai Liu, Wenqing Qiu, Zhou Qin, Chang Tan, Can Yang, **Desheng Zhang**  
MIFF: Human Mobility Extractions with Cellular Signaling Data  
To appear in ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'21**)

- [C10] Guang Wang\*, Shuxin Zhong, Shuai Wang, Fei Miao, Zheng Dong, **Desheng Zhang**  
Data-Driven Fairness-Aware Vehicle Displacement for Large-Scale Electric Taxi Fleets  
To appear in IEEE 37th International Conference on Data Engineering (**ICDE'21**)
- [C11] Yukun Yuan, Meiyi Ma, Songyang Han, Desheng Zhang, Fei Miao, John A. Stankovic and Shan Lin  
DeResolver: A Decentralized Negotiation and Conflict Resolution Framework for Smart City Services  
In ACM Conference on Cyber-Physical Systems (**ICCCPS'21**) 26%
- [C12] Yu Yang\*, Ding Yi, D.Yuan, Guang Wang\*, Xiaoyang Xie\*, Y. Liu, T. He and **Desheng Zhang**  
TransLoc: Transparent Indoor Localization with Uncertain Human Participation.  
In ACM Conference on Mobile Computing & Networking (**MobiCom'20**) 63/384=16%
- [C13] **Desheng Zhang**  
Mobile Cyber Physical Systems for Smart Cities.  
In the Web Conference **WWW'20** Sideway Workshop. Invited Keynote
- [C14] Zhihan Fang\*, Gang Wang\*, Shuang Wang, Chaoji Zuo, Fan Zhang, and **Desheng Zhang**.  
CellRep: Usage Representativeness Modeling and Correction Based on Multiple Cellular Networks  
In the Web Conference **WWW'20**, Oral Presentation. 217/1129=19%
- [C15] Sihong He, Lynn Pepin, Guang Wang, **Desheng Zhang** and Fei Miao.  
Data-Driven Distributionally Robust Electric Vehicle Balancing for Mobility-on-Demand Systems  
In IEEE/RSJ International Conference on Intelligent Robots and Systems (**IROS'20**).
- [C16] Yu Yang\*, Zhihan Fang\*, Xiaoyang Xie\*, F.Zhang, Y. Liu, and **Desheng Zhang**.  
Extending Coverage of Stationary Sensing Systems with Mobile Sensing Systems  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'20**) 149/848≈17.5%
- [C17] Xiaoyang Xie\*, Zhihan Fang\*, Yang Wang, Fan Zhang, and **Desheng Zhang**.  
RISC: Resource-Constrained Urban Sensing Task Scheduling based on Commercial Fleets  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'20**) 149/848≈17.5%
- [C18] Zhihan Fang\*, Boyang Fu\*, Zhou Qin\*, Fan Zhang, and **Desheng Zhang**.  
PrivateBus: Privacy Identification and Protection in Large-Scale Bus WiFi Systems  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'20**) 149/848≈17.5%
- [C19] Guang Wang\*, Yongfeng Zhang, Zhihan Fang\*, Fan Zhang, and **Desheng Zhang**.  
FairCharge: Data-Driven Fairness-Aware Charging Recommendation for Electric Taxi Fleets  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'20**) 149/848≈17.5%
- [C20] Zhou Qin\*, Fang Cao, Yu Yang\*, Shuai Wang, Yunhuai Liu, Chang Tan, and **Desheng Zhang**.  
CellPred: A Behavior-aided Scheme for Cellular Data Usage Prediction  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'20**) 149/848≈17.5%

- [C21] Yu Yang\*, X.Xie\*, Z.Fang\*, F.Zhang, Y.Wang, and **Desheng Zhang**.  
*VeMo: Enabling Vehicular Mobility Modeling at Individual Levels with Full Penetration*  
In ACM Conference on Mobile Computing & Networking (**MobiCom'19**). 55/290≈18%
- [C22] Guang Wang\*, X.Chen, F.Zhang, Y.Wang, and **Desheng Zhang**.  
*Experience: Understanding Long-Term Evolving Patterns of Shared Electric Vehicle Fleets*  
In ACM Conference on Mobile Computing & Networking (**MobiCom'19**). 55/290≈18%
- [C23] Zhihan Fang\*, Y.Yang\*, S.Wang, B Fu, Z, Song, F. Zhang, and **Desheng Zhang**  
*MAC: Measuring the Impacts of Anomalies on Travel Time of Multiple Transportation Systems*  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'19**) 176/750≈23%
- [C24] Guang Wang\*, W.Li, J.Zhang, Y.Ge, Z.Fu, F.Zhang, Y.Wang, and **Desheng Zhang**.  
*sharedCharging: Data-Driven Shared Charging for Heterogeneous Electric Vehicles*  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'19**) 176/750≈23%
- [C25] Xiaoyang Xie\*, G.Wang\*, F.Zhang, Y.Liu, and **Desheng Zhang**  
*coSense: Collaborative Urban-Scale Vehicle Sensing based on Heterogeneous Fleets*  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'19**) 176/750≈23%
- [C26] Yi Zhao, Xu Wang, Jianbo Li, Zheng Yang, and **Desheng Zhang**  
*CellTrans: Private Car or Public Transportation? Infer Users' Main Transportation Modes*  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'19**) 176/750≈23%
- [C27] Yan Zhang, Yunhuai Liu, Y.Ding, G.Li, N.Chen, H.Zhang, T.He and Desheng Zhang.  
*Route Prediction for Instant Delivery*  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'19**) 176/750≈23%
- [C28] Yukun Yuan, **Desheng Zhang**, Fei Miao, Jiming Chen, Tian He and Shan Lin:  
*p<sup>2</sup>Charging: Proactive Partial Charging for Electric Taxi Systems*  
In 39th IEEE International Conference on Distributed Computing Systems (**ICDCS'19**) 19.6%
- [C29] Guangyan Hu, Sandro Rigo, **Desheng Zhang**, and Thu Nguyen.  
*Approximation with Error Bounds in Spark*  
In *IEEE MASCOTS 2019*.
- [C30] Shuai Wang, T.He, **Desheng Zhang**, Y.Liu, Sang H. Son.  
*Towards Efficient Sharing: A Usage Balancing Mechanism for Bike Sharing Systems*  
In the Web Conference 2019 (**WWW 2019**) 1247/225=18%
- [C31] Guang Wang\*, X.Xie\*, F.Zhang, Y.Liu and **Desheng Zhang**  
*bCharge: Data-Driven Real-Time Charging Scheduling for Large-Scale Electric Bus Fleets*  
In IEEE International Real-time Systems Symposium (**RTSS'18**). 27/110≈24%

- [C32] Qin Zhou\*, Z.Fang\*, Y. Liu, C.Tan, W.Chang and **Desheng Zhang**  
*EXIMIUS: A Measurement Framework for Explicit and Implicit Urban Traffic Sensing*  
In ACM Conference on Embedded Networked Sensor Systems (**SenSys'18**). 23/147≈15%
- [C33] Zhihan Fang\*, Fan Zhang, Lin Ying, and **Desheng Zhang**  
*MutliCell: Urban Population Modeling based on Multiple Cellphone Networks*  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'18**). 140/501≈27%
- [C34] Yu Yang\*, Fan Zhang, and **Desheng Zhang**  
*SharedEdge: GPS-Free Fine-Grained Travel Time Estimation in State-Level Highway Systems*  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'18**). 140/501≈27%
- [C35] Xiaoyang Xie\*, Fan Zhang, and **Desheng Zhang**  
*PrivateHunt: Multi-source Data-driven Dispatching in For-Hire Vehicle Systems*  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'18**). 140/501≈27%
- [C36] S.Wang, T.He, **Desheng Zhang**, Y.Shu, Y.Liu, Y.Gu, C.Liu, H.Lee and S.Son  
*BRAVO: Improving the Rebalancing Operation in Bike Sharing System with Data-Driven Apps*  
In ACM Conference on Pervasive & Ubiquitous Computing (**IMWUT/UbiComp'18**). 140/501≈27%
- [C37] Y. Yuan, **Desheng Zhang**, Fei Miao, John A. Stankovic, Tian He, George Pappas and Shan Lin.  
*Dynamic Integration of Heterogeneous Transportation Modes under Disruptive Events*  
In ACM Conference on Cyber-Physical Systems (**ICCPs'18**). 78/378≈20.6%
- [C38] Ruilin Liu\*, Yu Yang\*, Daehan Kwak, **Desheng Zhang**, Liviu Iftode, Badri Nath.  
*Towards Fine-Grained Parking Availability Crowdsourcing Using Parking Decision Models.*  
In ACM Conference on Pervasive & Ubiquitous Computing (**UbiComp'17**) 1 of 9 Discussion Papers
- [C39] **Desheng Zhang**, Fan Zhang, and Tian He.  
*MultiCalib: National-Scale Traffic Model Calibration with Multi-source Incomplete Data*  
In the ACM Conference on Geographic Information Systems (**SIGSPATIAL'16**). 40/217≈18%
- [C40] **Desheng Zhang**, Juanjuan Zhao, Fan Zhang, and Tian He.  
*coMobile: Real-time Human Mobility Modeling at Urban Scale by Multi-View Learning*  
In the ACM Conference on Geographic Information Systems (**SIGSPATIAL'15**). 38/216≈18%
- [C41] **Desheng Zhang**, Ruobing Jiang, Shuai Wang, Yanmin Zhu, Bo Yang, Tian He, and Jian Cao.  
*Everyone Counts: Fine-Grained Digital Media Advertising in Urban Metro Systems.*  
In the IEEE International Conference on Big Data (**BigData'15**). 62/363≈17%
- [C42] **Desheng Zhang**, Juanjuan Zhao, Fan Zhang, Ruobing Jiang and Tian He.  
*Feeder: Supporting Last-Mile Transit with Extreme-Scale Infrastructure Data.*  
In ACM Conference on Information Processing in Sensor Networks (**IPSN'15**). 27/110≈24%



- [C43] **Desheng Zhang**, Juanjuan Zhao, Fan Zhang, and Tian He.  
*UrbanCPS: Cyber-Physical System Based on Multi-Source Data with Model Integration.*  
In ACM/IEEE International Conference on Cyber-Physical Systems (**ICCPS'15**). 25/91≈27%
- [C44] F. Miao, S. Lin, S. Munir, J. A. Stankovic, H. Huang, **Desheng Zhang**, T. He, and G. J. Pappas.  
*Taxi Dispatch with Real-Time Data in Metropolitan Areas - a Receding Horizon Control Approach.*  
In ACM Conference on Cyber-Physical Systems (**ICCPS'15**). **Best Paper Runner-up**. 2/91≈2%
- [C45] **Desheng Zhang**, Jun Huang, Ye Li, Fan Zhang, Chengzhong Xu, and Tian He.  
*Exploring Human Mobility with Multi-Source Data at Extremely Large Metropolitan Scales.*  
In 20<sup>th</sup> ACM Conference on Mobile Computing & Networking (**MobiCom'14**). 36/220≈16%
- [C46] **Desheng Zhang**, Tian He, Shan Lin, Sirajum Munir, and John A. Stankovic.  
*Dmodel: Online Taxicab Passenger Demand Model from Large Roving Sensor Networks.*  
In the 3<sup>rd</sup> IEEE International Congress on Big Data (**BigData'14**). 38/200≈19%
- [C47] **Desheng Zhang**, and Tian He.  
*Collaborative Sensing and Control in Large-Scale Transportation Systems.*  
In the Conference on Collaboration Technologies and Systems (CTS'14). Invited Paper
- [C48] **Desheng Zhang**, Tian He, Yunhuai Liu, and John A. Stankovic.  
*CallCab: a Unified Recommendation System for Carpooling and Regular Taxicab Services.*  
In the IEEE International Conference on Big Data (**BigData'13**). 45/259≈17%
- [C49] **Desheng Zhang**, Ye Li, Fan Zhang, Ming Lu, Yunhuai Liu, and Tian He.  
*coRide: Carpool Service with a Win-Win Fare Model for Taxicab Networks.*  
In 11<sup>th</sup> ACM Conference on Embedded Networked Sensor Systems (**SenSys'13**). 21/123≈17%
- [C50] **Desheng Zhang**, and Tian He.  
*pCruise: Reducing Cruising Miles for Taxicab Networks.*  
In the 33<sup>rd</sup> IEEE International Real-time Systems Symposium (**RTSS'12**). 35/157≈22%
- [C51] **Desheng Zhang**, Tian He, Yunhuai Liu, Yu Gu, Fan Ye, Raghu K. Ganti, and Hui Lei.  
*Acc: Generic On-Demand Accelerations for Neighbor Discovery.*  
In 10<sup>th</sup> ACM Conference on Embedded Networked Sensor Systems (**SenSys'12**). 23/123≈18%
- [C52] **Desheng Zhang**, Tian He, Fan Ye, Raghu K. Ganti, and Hui Lei.  
*EQS: Neighbor Discovery and Rendezvous Maintenance with Extended Quorum System.*  
In 32<sup>nd</sup> International Conference on Distributed Computing Systems (**ICDCS'12**). 71/515≈13%
- [C53] **Desheng Zhang**, Jinbao Li, and Longjiang Guo.  
*MCR: a Dynamic and Optimal Duty Cycle Based MAC Protocol for Wireless Sensor Networks.*  
In 4<sup>th</sup> Conference for Wireless Sensor Networks (CWSN'10). **Best Paper Award**. 1/212≈0.4%

- [C54] Jinbao Li, and **Desheng Zhang**.  
*M&M: A Multi-Channel MAC Protocol with Multiple Channel Reservation for Sensor Networks*.  
 In the Conference on Cyber-Enabled Computing. (CyberC'10) **Best Paper Runner-up**. 1/297
- [C55] Jinbao Li, **Desheng Zhang**, Shouling Ji, and Longjiang Guo.  
*RCS:A Random Channel Selection with Probabilistic Backoff for MAC Protocols in WSNs*.  
 In the 53th IEEE Global Communications Conference. (Globecom'10) 1313/3596≈36.5%
- [C56] Jinbao Li, **Desheng Zhang**, Longjiang Guo, Shouling Ji, and Yingshu Li.  
*ARM:Asynchronous Receiver-initiated Multi-Channel MAC Protocol with Duty Cycling for WSNs*.  
 In the 29th Performance Computing & Communications Conference (IPCCC'10) 36/127≈28.3%
- [C57] Jinbao Li and **Desheng Zhang**.  
*RCO: a Multi-channel MAC Protocol with Random Cooperation for Wireless Sensor Networks*.  
 In the 7th Conference on Ubiquitous Intelligence and Computing. (UIC'10) 36/128≈28.1%
- [C58] **Desheng Zhang**, Jinbao Li, Longjiang Guo, and Shouling Ji.  
*HM-MAC: A Multi-Channel MAC Protocol for Sensor Networks*.  
 In the 3rd Conference for Wireless Sensor Networks (CWSN'09) 21/249≈8.4%

### III.2 Selected Journal Article Publications

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- [J1] Qin Zhou\*, Zhihan Fang\*, Yunhuai Liu, Chang Tan, Wei Chang, and **Desheng Zhang**  
*A Measurement Framework for Explicit and Implicit Urban Traffic Sensing*  
 In ACM Transactions on Sensor Networks (**TOSN**), 2021.
- [J2] Yu Yang\*, X.Xie\*, Z.Fang\*, F.Zhang, Y.Wang, and **Desheng Zhang**  
*VeMo: Enabling Transparent Vehicular Mobility Modeling at Individual Levels with Full Penetration*  
 In IEEE Transactions on Mobile Computing (**TMC**), 2020.
- [J3] Guang Wang\*, Zhihan Fang, Xiaoyang Xie, Shuai Wang, Fan Zhang, Yunhuai Liu, **Desheng Zhang**  
*Pricing-Aware Real-Time Charging Scheduling for Large-Scale Electric Buses*  
 In ACM Transactions on Intelligent Systems and Technology (**TIST**), 2020.
- [J4] Guang Wang\*, Fan Zhang, Yang Wang, **Desheng Zhang**  
*Understanding the Long-Term Evolution of Electric Taxi Networks*  
 In ACM Transactions on Intelligent Systems and Technology (**TIST**), 2020.
- [J5] Dan Luo, Dong Zhao, Q. Ke, X. You, L. Liu, **Desheng Zhang**, H. Ma, X. Zuo  
*Fine-grained Service-level Passenger Flow Prediction for Bus Systems via Multitask Deep Learning*  
 In IEEE Transactions on Intelligent Transportation Systems (**TITS**), 2020.
- [J6] **Desheng Zhang**, Tian He, and Fan Zhang.  
*National-Scale Traffic Model Calibration in Real Time with Multi-source Incomplete Data*

- In ACM Transactions on Cyber-Physical Systems (**TCPS**), 2019.
- [J7] Lai Tu, Shuai Wang, **Desheng Zhang**, Fan Zhang, and Tian He.  
*ViFi-MobiScanner: Observe Human Mobility via Vehicular Internet Service*  
In IEEE Transactions on Intelligent Transportation Systems (**TITS**), 2019.
- [J8] **Desheng Zhang**, Tian He, Fan Zhang, and Chengzhong Xu.  
*Urban-Scale Human Mobility Modeling with Multi-Source Urban Network Data*  
In IEEE/ACM Transactions on Networking (**ToN**), 2018.
- [J9] **Desheng Zhang**, Tian He and Fan Zhang.  
*Real-time Human Mobility Modeling at Urban Scale by Multi-View Learning*  
In ACM Transactions on Intelligent Systems and Technology (**TIST**), 2018.
- [J10] F.Miao, S.Han, S.Lin, Q.Wang, J.A.Stankovic, A.Hendawi, **Desheng Zhang**, T.He, G.J. Pappas.  
*Data-Driven Robust Taxi Dispatch under Demand Uncertainties.*  
In IEEE Transactions on Control Systems Technology (**TCST**), 2017.
- [J11] R.Jiang, Z.Feng; **Desheng Zhang**, Shuai Wang, Yanmin Zhu, Bo Yang, Tian He, and Jian Cao.  
*Data-Driven Digital Advertising with Uncertain Demand Model in Metro Networks*  
In IEEE Transactions on Big Data (**TBD**), 2017.
- [J12] **Desheng Zhang**, Tian He, Shan Lin, Sirajum Munir, and John A. Stankovic.  
*Taxi Passenger Demand Modeling from a Roving Sensor Network.*  
In IEEE Transactions on Big Data (**TBD**), 2017.
- [J13] **Desheng Zhang**, Juanjuan Zhao, Fan Zhang, and Tian He.  
*Heterogeneous Model Integration for Multi-Source Infrastructure Data.*  
In ACM Transactions on Cyber-Physical Systems (**TCPS**), 2016.
- [J14] **Desheng Zhang**, Juanjuan Zhao, Fan Zhang, Ruobing Jiang and Tian He.  
*Last-Mile Transit Service with Urban Infrastructure Data.*  
In ACM Transactions on Cyber-Physical Systems (**TCPS**), 2016.
- [J15] F.Miao, S.Han, S.Lin, J.A. Stankovic, H.Huang, **Desheng Zhang**, S.Munir, T.He, G.J. Pappas.  
*Taxi Dispatch with Real-Time Data in Metropolitan Areas:A Receding Horizon Control Approach.*  
In IEEE Transactions on Automation Science and Engineering (**TASE**), 2016.
- [J16] **Desheng Zhang**, Tian He, Fan Ye, Raghu K. Ganti and Hui Lei.  
*Neighbor Discovery and Maintenance with Extended Quorum Systems.*  
In IEEE Transactions on Mobile Computing (**TMC**), 2016.
- [J17] **Desheng Zhang**, Fan Zhang, Ming Lu, Yunhuai Liu, and Tian He.

*Carpool Service for Large-Scale Taxicab Networks.*  
In ACM Transactions on Sensor Networks (**TOSN**), 2016.

[J18] **Desheng Zhang**, Tian He, Yunhuai Liu, Yu Gu, Fan Ye, Raghu K. Ganti, and Hui Lei.  
*Generic Neighbor Discovery in Mobile Applications.*  
In ACM Transactions on Sensor Networks (**TOSN**), 2015.

[J19] **Desheng Zhang**, Tian He, Lin Shan, Sirajum Munir, and John A. Stankovic.  
*Online Cruising Mile Reduction for Large-Scale Taxicab Networks.*  
In the IEEE Transactions on Parallel and Distributed Systems (**TPDS**), 2015.

[J20] **Desheng Zhang**, Tian He, Yunhuai Liu, and John A. Stankovic.  
*A Unified Recommendation System for Carpooling and Regular Taxicab Services.*  
In the IEEE Transactions on Emerging Topics in Computing (**TETC**), 2014.

[J21] **Desheng Zhang**, Jinbao Li, and Longjiang Guo.  
*Study on Asynchronous Multi-channel MAC Protocol for WSNs*  
In Journal of Software, 2012.

[J22] **Desheng Zhang**, Jinbao Li, and Longjiang Guo.  
*Study on Multi-channel Reservation Based MAC Protocol for Wireless Sensor Networks*  
In Journal on Communications, 2011.

[J23] **Desheng Zhang**, Jinbao Li, Longjiang Guo, Shouling Ji, and Yu Wang  
*HM-MAC: A Multi-Channel MAC Protocol for Sensor Networks with Broadcast Supporting*  
In Journal of Computer Research and Development, 2009.

### III.3 Conference Posters (Referred)

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[P1] Zhihan Fang, Guang Wang and **Desheng Zhang**.  
Modeling Fine-Grained Human Mobility on Cellular Networks  
In the Web Conference (**WWW 2020**).

[P2] Guang Wang and **Desheng Zhang**.  
Understanding Long-Term Mobility and Charging Evolving of Shared Electric Vehicle Networks  
In ACM Conference on Mobile Computing & Networking 2019 (**MobiCom'19**).

[P3] Zhihan Fang, Fan Zhang, **Desheng Zhang**.  
Fine-grained travel time sensing in heterogeneous mobile networks  
In 17<sup>th</sup> ACM Conference on Embedded Networked Sensor Systems 2019 (**SenSys'19**).

- [P4] Zhou Qin, Yikun Xian, **Desheng Zhang**.  
A neural networks-based caching scheme for mobile edge networks  
In 17<sup>th</sup> ACM Conference on Embedded Networked Sensor Systems 2019 (**SenSys'19**).
- [P5] Shuxin Zhong, **Desheng Zhang**.  
Conflict Detection for Smart Cities Services  
In 17<sup>th</sup> ACM Conference on Embedded Networked Sensor Systems 2019 (**SenSys'19**).
- [P6] Fan Zhang, **Desheng Zhang**.  
Privacy-aware synthesis of sensing data based on learning model at metropolitan scale  
In 17<sup>th</sup> ACM Conference on Embedded Networked Sensor Systems 2019 (**SenSys'19**).
- [P7] Guang Wang, Fan Zhang, **Desheng Zhang**.  
tCharge - A fleet-oriented real-time charging scheduling system for electric taxi fleets  
In 17<sup>th</sup> ACM Conference on Embedded Networked Sensor Systems 2019 (**SenSys'19**).
- [P8] Xiaoyang Xie, Fan Zhang, **Desheng Zhang**.  
Understanding real-time interaction in heterogeneous vehicular sensing  
In 17<sup>th</sup> ACM Conference on Embedded Networked Sensor Systems 2019 (**SenSys'19**).
- [P9] Yu Yang, Fan Zhang, **Desheng Zhang**.  
Vehicular mobility modeling based on heterogeneous sensor networks  
In 17<sup>th</sup> ACM Conference on Embedded Networked Sensor Systems 2019 (**SenSys'19**).
- [P10] Zhihan Fang and **Desheng Zhang**.  
*Human Mobility Modeling on Metropolitan Scale Based on Multiple Cellphone Networks*  
In ACM/IEEE Conference on Internet-of-Things Design and Implementation (**IoTDI'17**).
- [P11] F.Miao, S.Han, S.Lin, J.Stankovic, Q.Wang, **Desheng Zhang**, T.He and George Pappas  
*Data-Driven Robust Taxi Dispatch Approaches*  
In ACM/IEEE International Conference on Cyber-Physical Systems (**ICCPS'16**).
- [P12] **Desheng Zhang**, and Tian He.  
*USN: an Extremely Large Sensor Network based on Urban Infrastructures for Smart Cities*  
In the 14<sup>th</sup> ACM Conference on Embedded Networked Sensor Systems (**SenSys'16**).
- [P13] **Desheng Zhang**, and Tian He.  
*Improving Efficiency of Metropolitan-Scale Transit Systems with Multi-Mode Data Feeds.*  
In the 12<sup>th</sup> ACM Conference on Mobile Systems, Applications, and Services (**MobiSys'14**).
- [P14] **Desheng Zhang**, Tian He, Yunhuai Liu, Yu Gu, Fan Ye, and Raghu K. Ganti.  
*Neighbor Discovery with Distributed Quorum System.*  
In the 9<sup>th</sup> ACM Conference on Embedded Networked Sensor Systems (**SenSys'11**).

[P15] **Desheng Zhang**, Tian He, Fan Ye, Raghu K. Ganti and Hui Lei.

*Where Is the Crowd?: Crowdedness Detection Scheme for Mobile Crowdsensing Applications.*

In the IEEE Conference on Computer Communication (**INFOCOM'11**). **Best Poster Award.**

## IV. Grants

Summary: \$5.5 Million in Total in 3 Years (\$4 Million as Lead PI) from NSF (CPS, SCC, S&AS, C&DSE programs), US DoT, Google, Rutgers, etc.

1	10/2020-09/2023	Smart and Connected Community Integrative Track 1: Socially Informed Services Conflict Governance through Specification, Detection, Resolution and Prevention	NSF	\$2,300,000
			Lead PI: <b>Desheng Zhang</b>	
			Co-PIs:	
			Gregory Porumbescu (Rutgers Public Affairs)	
			Suzanne Piotrowski (Rutgers Public Affairs)	
			Jing Jin (Rutgers Civil Engineering)	
			Jack Stankovic (UVa Computer Science)	
			Shan Lin (SBU Electrical Engineering)	
			Fei Miao (UConn Computer Science)	
2	10/2020-09/2023	Smart and Connected Community Integrative Track 2: Making Micromobility Smarter and Safer (M2S2)	NSF/DoT	\$1,500,000
			Lead PI: Clinton Andrews (Rutgers Public Policy)	
			Co-PIs:	
			<b>Desheng Zhang</b>	
			Dimitris Metaxas (Rutgers Computer Science)	
			Robert Noland (Rutgers Public Policy)	
			Jie Gong (Rutgers Civil Engineering)	
3	07/2020-06/2023	CDS&E: Private Data Analytics Synthesis, and Sharing for Large-Scale Multi-Modal Smart City Mobility	NSF	\$500,000
			Lead PI: <b>Desheng Zhang</b>	
			Co-PIs:	
			Yuan Tian (UVa Computer Science)	
			Dimitris Metaxas (Rutgers Computer Science)	
4	10/2021-08/2022	Research Experience for Undergrad Supplement	NSF	\$16,000
			Single PI: <b>Desheng Zhang</b>	
5	06/2020-10/2020	Human Mobility Inference and Modeling for Community Spreading of COVID-19 in Public Transit	Google Research	\$14,000
			Single PI: <b>Desheng Zhang</b>	

6	07/2020- 06/2023	Research Experience for Undergrad Supplement	NSF	\$16,000
			Single PI: <b>Desheng Zhang</b>	
7	10/2020- 08/2022	Research Experience for Undergrad Supplement	NSF	\$16,000
			Single PI: <b>Desheng Zhang</b>	
8	09/2020- 02/2022	NSF PAWR Infrastructure for Wireless & Mobile Research	NSF	\$50,000
			Single PI: <b>Desheng Zhang</b>	
9	06/2020- 05/2021	Trustworthy Data-Driven AI Scheduling in Instant Delivery for On-demand Economy	Rutgers Research Council Grant	\$4,000
			Single PI: <b>Desheng Zhang</b>	
10	03/2020- 02/2021	NSF Engineering Data Science Activities	NSF	\$59,939
			Single PI: <b>Desheng Zhang</b>	
11	12/2019- 11/2020	NSF Engineering Design Supplement	NSF	\$4,000
			Single PI: <b>Desheng Zhang</b>	
12	09/2019- 08/2020	CPS: Improving Efficiency of Electric Vehicle Fleets: A Data-Driven Control Framework for Mobile CPS	NSF	\$498,397
			Lead PI: <b>Desheng Zhang</b>	
			Co-PI: Fei Miao (UConn Computer Science)	
13	03/2019- 02/2022	S&AS: Adaptable Vehicular Sensing and Control for Fleet-Oriented Systems in Smart Cities	NSF	\$599,883
			Lead PI: <b>Desheng Zhang</b>	
			Co-PI: Fei Miao (UConn Computer Science) Dimitris Metaxas (Rutgers Computer Science)	
14	07/2017- 05/2018	Human Mobility Modeling based on Cross-domain Data	Rutgers Research Council Grant	\$2,300
			Single PI: <b>Desheng Zhang</b>	
15	06/2017- 05/2019	Fleet-Oriented Charging for Commercial Electric Vehicles	Rutgers Global Center	\$8,000
			Single PI: <b>Desheng Zhang</b>	



## V. Invited Talks

- Societal Cyber-Physical Systems: NSF CPS PI Meeting 06.2021
- Cyber-Physical Systems for On-demand Delivery: Shanghai Jiaotong U 04.2021
- Urban Cyber-Physical Systems: 2020 New York Scientific Data Summit 10.2020
- Panel on Urban Mobility Challenges: 2020 New York Scientific Data Summit 10.2020
- Urban Cyber-Physical Systems: MIT Connection Science 09.2020
- Urban Cyber-Physical Systems: Wayne State University 09.2020
- Keynote Speak: Sideways Workshop of the web conference (WWW'20) 04.2020
- Urban Cyber-Physical Systems: Beijing Jiaotong University 06.2019
- Urban Cyber-Physical Systems: Beijing University of Posts and Telecommunications 06.2019
- Urban Cyber-Physical Systems: Peking University 06.2019
- Urban Cyber-Physical Systems: Tsinghua University 06.2019
- Urban Cyber-Physical Systems: Zhejiang University 06.2019
- Urban Cyber-Physical Systems: Smart City Forum 06.2019
- Urban Cyber-Physical Systems: Shenzhen University 05.2019
- Urban Cyber-Physical Systems: Central South University 05.2019
- Urban Cyber-Physical Systems: Hunan University 05.2019
- Urban Cyber-Physical Systems: University of Technology and Science of China Hefei 05.2019
- Urban Cyber-Physical Systems: Shanghai Jiaotong University 05.2019
- Urban Cyber-Physical Systems: Huazhong University of Science and Technology 05.2019
- Urban Cyber-Physical Systems: University of Technology and Science of China Suzhou 05.2019
- Urban Cyber-Physical Systems: Southeast University 05.2019

- Urban Cyber-Physical Systems: Beijing University of Posts and Telecommunications 01.2019
- Urban Cyber-Physical Systems: Zhejiang University 01.2019
- Urban Cyber-Physical Systems: Peaking University 01.2019
- Urban Cyber-Physical Systems: Tsinghua University 01.2019
- Urban Cyber-Physical Systems: Chinese Academy of Science 01.2019
- Urban Cyber-Physical Systems: Shanghai Jiaotong University 12.2018
- Urban Cyber-Physical Systems: Southeast University 12.2018
- Urban Cyber-Physical Systems: Chinese University of Hong Kong 10.2018
- Urban Cyber-Physical Systems: Nanyang Technological University 10.2018
- Urban Cyber-Physical Systems: University of Virginia 09.2018
- Urban Cyber-Physical Systems: Northeastern University 08.2018
- Urban Cyber-Physical Systems: Nanjing University 07.2018
- Urban Cyber-Physical Systems: New Jersey Institute of Technology 12.2017
- Urban Cyber-Physical Systems: Columbia University 12.2017
- Urban Cyber-Physical Systems: Peking University: Data Science Center 08.2017
- Urban Cyber-Physical Systems: DIMACS 04.2017
- Urban Cyber-Physical Systems: University of Maryland 05.2016
- Urban Cyber-Physical Systems: University of Oregon 05.2016
- Urban Cyber-Physical Systems: University of Illinois 04.2016
- Urban Cyber-Physical Systems: Indiana University 04.2016
- Urban Cyber-Physical Systems: Carnegie Mellon University (Computer Science) 03.2016
- Urban Cyber-Physical Systems: University of Texas 03.2016
- Urban Cyber-Physical Systems: Rutgers University 03.2016

- Urban Cyber-Physical Systems: Case Western Reserve University 03.2016
- Urban Cyber-Physical Systems: Vanderbilt University 03.2016
- Urban Cyber-Physical Systems: Georgia Tech 02.2016
- Urban Cyber-Physical Systems: Florida State University, University of Mississippi 02.2016
- Urban Cyber-Physical Systems: University of California 02.2016
- Urban Cyber-Physical Systems: Carnegie Mellon University (Heinz College) 02.2016
- Urban Cyber-Physical Systems: Virginia Tech 02.2016
- Urban Cyber-Physical Systems: University of Georgia, University of Alabama 02.2016
- Urban Cyber-Physical Systems: Case Western Reserve University 01.2016
- Urban Cyber-Physical Systems: Georgia State University, University of Memphis 01.2016
- Urban Cyber-Physical Systems: City University of New York 12.2015
- Mobile Cyber-Physical Systems: University at Buffalo 09.2015
- Mobile Cyber-Physical Systems: Hong Kong Polytechnic University 09.2015
- Mobile Cyber-Physical Systems: Tsinghua University 08.2015
- Mobile Cyber-Physical Systems: Peking University 08.2015
- Mobile Cyber-Physical Systems: Chinese Academy of Sciences 08.2015
- Mobile Cyber-Physical Systems: New York University 06.2015
- Mobile Cyber-Physical Systems: IBM Research 06.2015
- Mobile Cyber-Physical Systems: MIT 05.2015
- Mobile Cyber-Physical Systems: Northeastern University 05.2015
- Mobile Cyber-Physical Systems: Boston University 05.2015
- Mobile Cyber-Physical Systems: Microsoft Research 04.2015
- International Conference on Collaboration Technologies and Systems 05.2014

## VI. Mentorship

### VI.1 Thesis Advisor for 3 Graduated PhD Students

1.	Zhihan Fang	CS	01/2017 – 05/2020	First Employment: Facebook
	Thesis: Human Mobility Modeling Based on Heterogeneous Urban Sensing Systems			

2.	Xiaoyang Xie	CS	09/2017 – 05/2021	First Employment: Expedia
	Thesis: An Integration of Heterogeneous Systems For Vehicular Sensing			

3.	Yu Yang	CS	09/2017 – 07/2021	First Employment: Assistant Professor Lehigh University
	Thesis: Cyber Physical Systems for Urban Sensing			

### VI.2 Thesis Advisor for 10 Current PhD Students

1.	Guang Wang	CS	09/2017 - Present	6.	Yang Guang	CS	09/2020 - Present
2.	Qin Zhou	CS	09/2017 - Present	7.	Zhiqing Hong	CS	09/2020 - Present
3.	Fan Zhang	CS	09/2018 - Present	8.	Yuequn Zhang	CS	09/2021 - Present
4.	Shuxin Zhong	CS	09/2019 - Present	9.	Zejun Xie	CS	09/2021 - Present
5.	Wenjun Lyu	CS	09/2020 - Present	10.	Songhua He	CS	09/2021 - Present

### VI.3 Thesis Committees Member for 13 PhD Students

1.	Qiaoying Huang	CS	04/2021	9.	Tugba Kulahcioglu	CS	04/2018
2.	Pengxiang Wu	CS	04/2021	10.	Xinyu Li	ECE	02/2018
3.	Yunqi Li	CS	04/2021	11.	Ruilin Liu	CS	09/2017
4.	Blerta Lindqvist	CS	05/2019	12.	Liu Liu	CS	05/2017
5.	Lezi Wang	CS	11/2018	13.	Luyang Liu	ECE	04/2017
6.	Srinivas Devarak	CS	11/2018	14.	Hongyu Li	CS	04/2017
7.	Chaolun Xia	CS	05/2018	15.	Jun Hu	CS	11/2016
8.	Sen Yang	ECE	05/2018	16.	Shu Wang	CS	09/2016

### VI.4 Thesis Advisor for 4 Master Students

1.	Chaozhang Huang	CS	10/2019	3.	Yu Yang	CS	05/2017
2.	Chaoji Zuo	ECE	10/2019	4.	Xiaoyang Xie	CS	05/2017

### **VI.5 Research Advisor for Undergrad Students (REU)**

1.	Ryhan Moghe	CS	09/2020-Now	6.	Swapneil Singh	CS	05/2021-Now
2.	Grace Chen	CS	05/2021-Now	7.	Annie Wang	CS	05/2021-Now
3.	Samuel Malnati	CS	05/2021-Now	8.	Jinal Shah	CS	05/2021-Now
4.	William Yubeaton	CS	05/2021-Now	9.	Maya Ravichandran	CS	01/2020-05/2021
5.	Biyun Wu	CS	05/2021-Now	10.	Rahoul Patel	CS	09/2020-05/2021

## **VII. Teaching**

### **VII.1 Regular Course Instruction**

1	<b>CS553: Internet Service Design</b> 41 students	S2021
2	<b>CS672: Ubiquitous Computing for Smart Cities</b> 63 students	S2020
3	<b>CS352: Internet Technology</b> 166 students	F2019
4	<b>CS352: Internet Technology</b> 134 students	S2019
5	<b>CS671: Data Science for Smart Cities</b> 19 students	F2018
6	<b>CS671: Data-Driven Cyber Physical Systems for Smart Cities</b> 8 students	S2018
7	<b>CS352: Internet Technology</b> 113 students	F2017
8	<b>CS671: Data-Driven Cyber Physical Systems for Smart Cities</b> 17 students	S2017
9	New Course Development <b>CS551: Ubiquitous Computing</b>	2017-2021
	Proposed and developed a new course for <i>Ubiquitous Computing CS551</i> , which have been taught 4 times now at the CS department; Designed the course syllabus, presentation papers, course projects, evaluation metrics, etc. So far, 107 students have been talking this course since 2017.	

## VII.2 Independent Study Course Instruction

1.	S2021	Ryhan Moghe
2.	S2021	Bliss Y Hu
3.	F2020	Ryhan Moghe
4.	F2020	Yuefei Chen
5.	F2020	Ryhan Moghe
6.	F2020	Rahul Patel
7.	S2020	Bliss Y Hu
8.	S2020	Jianyu Qiu
9.	S2020	Maya Ravichandran
10.	S2020	Dengpan Yuan
11.	F2019	Bliss Y Hu
12.	S2019	Yao Yongle
13.	S2019	Douglas J Rudolph
14.	S2019	Bliss Y Hu
15.	S2019	Boyang Fu

16.	F2018	Boyang Fu
17.	F2018	Xingcheng Rong
18.	F2018	Tongle Yao
19.	S2018	Jiamin Gong
20.	S2018	Hersh Patel
21.	S2018	Kaitlin Taylor
22.	S2018	Jia You
23.	S2018	Tsunming Yu
24.	F2017	Jiaxu Su
25.	F2017	Diana Navarro
26.	F2017	Xiaofa Lin
27.	F2017	Jiwei Chen
28.	S2017	Ishan Patel
29.	S2017	Lawrence Park
30.	S2017	Olaolu Emmanuel

## VIII. Services

### VIII.1 Rutgers Internal Services

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- **Chair** for PhD Admission Committee 01.2020
- Committee Member for Graduate Study 09.2019
- Organizers for New Jersey Smart Cities Workshop 05.2019
- **Co-Chair** for PhD Admission Committee 09.2018
- Committee Member for Infrastructure 01.2018
- Committee Member for Faculty Hiring 01.2018
- Committee Member for Master Admission 09.2017
- Committee Member for PhD Admission 09.2017
- Committee Member for Master Admission 01.2017

### VIII.2 Conference Committee Co-Chairs and Journal Editors

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- Associate Editor for ACM Transactions on Sensor Networks (**TOSN**) 2020-2022
- Associate Editor for Proceedings of ACM on Interactive, Mobile, Wearable Ubiquitous Technologies (**IMWUT**) 2018-2020
- IEEE International Conference on Parallel and Distributed Systems (**ICPADS 2021**) 12.2021
- The ACM Joint Conference on Pervasive and Ubiquitous Computing (**UbiComp 2021**) 12.2020
- The ACM Conference on Embedded Networked Sensor Systems (**SenSys 2019**) 02.2019
- IEEE International Conference on Parallel and Distributed Systems (**ICPADS 2019**) 01.2019
- IEEE International Conference on Mobile Ad-Hoc and Smart Systems (**MASS 2019**) 01.2019
- The Conference on Computer Communications and Networks (**ICCCN 2019**) 09.2018
- IEEE Workshop on Mission-Oriented Cyber-Physical System Networking 08.2017

### VIII.3 Technical Program Committee

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- **SenSys'21**: The Conference on Embedded Networked Sensor Systems, 11/16-19, 2021, Portugal
- **AAAI'21**: The 35<sup>th</sup> AAAI conference on Artificial Intelligence, 02/02-02/09, 2021

- **WebConference'21**: The 30th Web Conference, 04/19-04/26/, 2021, Ljubljana, Slovenia
- **EWSN'21**: The Conference on Embedded Wireless Systems & Networks, 2/17-19 2021, France
- **SenSys'20**: The Conference on Embedded Networked Sensor Systems, 11/16-19, 2020, Japan
- **DCOSS'20**: The Conference on Distributed Computing in Sensor Systems, 5/25-27 2020, CA
- **SMARTCOMP'20**: IEEE International Conference on Smart Computing, 6/22-6/25, 2020, Italy
- **MASS'20**: IEEE Conference on Mobile Ad-Hoc and Smart Systems, 10-13/12, 2020, India
- **DCOSS'19**: The Conference on Distributed Computing in Sensor Systems, 5/25 2019, Greece
- **SMARTCOMP'19**: IEEE International Conference on Smart Computing, 6/12-6/15, 2019, D.C.
- **ICCCN'19**: The Conference on Computer Communications and Networks, 7/29 – 8/1, 2019, Spain
- **SenSys'18**: The Conference on Embedded Networked Sensor Systems, 11/4-7, 2018, Shenzhen
- **ICCCN'18**: The Conference on Computer Communications and Networks, 7/30-8/2, 2018, China
- **SAC'18**: The ACM Symposium on Applied Computing in 2018, April 9 - April 13, 2018, France
- **SECON'18**: The Conference on Sensing, Communication and Networking, 6/11-13, 2018, HK
- **EWSN'18**: The Conference on Embedded Wireless Systems & Networks, 2/14-16, 2018, Spain
- **ICCPS'18**: The Conference on Cyber-Physical Systems, 4/11-13, 2018, Porto, Portugal
- **ICCCN'17**: The Conference on Computer Communications & Networks, 7/31-8/3, 2017, Canada
- **SECON'17**: The Conference on Sensing, Communication & Networking, 6/12-14, 2017, San Diego
- **NAS'17**: The Conference on Networking, Architecture, and Storage, 8/7-8, 2017, Shenzhen
- **MISENET'17**: IEEE Workshop on Mission-oriented Wireless Sensor Networking, 5/1 2017, US
- **SmartSys**: IEEE Workshop on Smart Service Systems, 5/18-20 2016, St. Louis, Missouri

#### VIII.4 Paper Reviews

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- **Scientific Reports – Nature**
- **PLOS One – Public Library of Science**
- Proceedings of ACM on Interactive, Mobile, Wearable & Ubiquitous Technologies **IMWUT**
- ACM Transactions on Intelligent Systems and Technology **TIST**
- ACM Transactions on Sensor Networks **TOSN**
- ACM Transactions on Cyber Physical Systems **TCPS**
- ACM Transactions on Knowledge Discovery from Data **TKDD**



- IEEE/ACM Transactions on Networking **ToN**
- IEEE Transactions on Mobile Computing **TMC**
- IEEE Transactions on Parallel and Distributed Systems **TPDS**
- IEEE Transactions on Intelligent Transportation Systems **TITS**
- IEEE Transactions on Services Computing **TSC**
- IEEE Transactions on Emerging Topics in Computing **TETC**
- IEEE Transactions on Knowledge and Data Engineering **TKDE**:
- IEEE Internet of Things Journal **IoT**
- IEEE Transactions on Vehicular Technology **TVT**
- IEEE Conference on Computer Communications **INFOCOM 17**
- IEEE Conference on Computer Communications **INFOCOM 16**
- IEEE Conference on Computer Communications **INFOCOM 15**
- Pervasive and Mobile Computing Journal **PMC**
- Elsevier Computer Networks Journal **COMNET**
- International Journal of Sensor Networks **IJSNet**
- International Conference on Distributed Computing Systems **ICDCS**

### **VIII.5 Grant Proposal Review Program Committee**

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|--|-----------|
| • UNC Areas of Excellence Review                         | 2021      |
| • 5 NSF Panels for NSF Proposal Review                   | 2018-2021 |
| • Hong Kong Research Grants Council                      | 2021      |
| • Rutgers Global Center Proposal Review                  | 2019      |
| • Research Proposal Review for Israel Science Foundation | 2018      |