# **Feng WANG**

## (Associate Professor)

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Department of Computer and Information Science

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## RESEARCH INTERESTS

 Wireless sensor/mesh networks, internet of things, cyber-physical systems, crowdsourcing, cloud/edge computing, socialized content sharing, peer-to-peer networks, big data, applications of deep learning in computer networking

## **EDUCATION**

Simon Fraser University, Burnaby, BC, Canada 05/2005-05/2012

Major: Computing Science

Degree: Doctor of Philosophy (GPA: 4.33)

Dissertation: Reliable and Energy-Efficient Data Collection in Wireless Sensor

Networks

Supervisor: Professor Jiangchuan Liu

Tsinghua University, Beijing, China

09/2002-01/2005

 Exempted from the graduate entrance examination, on the recommendation of Tsinghua University for high achievement in undergraduate program

Major: Computer Science and Technology
Degree: Master of Engineering (GPA: 3.40)

Dissertation: Research on Embedded Remote Display System

Supervisor: Professor Yong Xiang

Tsinghua University, Beijing, China

09/1998-07/2002

 Ranked No.1 in Taiyuan City in the nationwide college/university entrance examination

Major: Computer Science and Technology
Degree: Bachelor of Engineering (GPA: 3.48)

## PROFESSIONAL EXPERIENCES

**Associate Professor** (Tenured), Department of Computer and Information Science, the **07/2018-Present** University of Mississippi, University, MS, USA

- Lead the Future Computer Networking Research group to work on various research problems in the computer networking field, where the current research focus is on
  - Cloud based socialized and media content sharing over Internet and mobile networks
  - Next-generation cloud for big data, heterogeneous, and crowdsourced computing
  - Big data/content distribution in heterogeneous and dynamic network environment with advanced practical fountain coding
  - Data collection and processing in wireless sensor networks and cyber-physical systems for structure health monitoring and video surveillance

Assistant Professor (Tenure-Track), Department of Computer and Information Science, 08/2012-06/2018 the University of Mississippi, University, MS, USA

 Lead the Future Computer Networking Research group to work on various research problems in the computer networking field

**Visiting Scholar**, Department of Computing, the Hong Kong Polytechnic University

05/2015-07/2015

 Research on a joint project with Tencent Ltd. to analyze online user behaviors in air pollution events through big online social network data

**Visiting Scholar**, School of Computing Science, Simon Fraser University, Burnaby, BC, Canada

05/2014-07/2014

05/2013-08/2013

 Research focuses on investigating and optimizing network performance in virtual machine based cloud environment and improving the performance of emerging applications by cloud computing

**Visiting Scholar**, Department of Information Technology, Uppsala University, Uppsala, **06/2013-06/2013**Sweden

 Research focuses on mobile cloud based energy-efficient data communication and service off-loading

**Research/Teaching Assistant**, School of Computing Science, Simon Fraser University, **05/2005-05/2012** Burnaby, BC, Canada

- Research focuses on wireless sensor networks and peer-to-peer networks, also exploring various issues in structural health monitoring with sensor networks, routing in wireless mesh networks, socialized file/multimedia content sharing and cloud computing
- Teaching assistant for the following courses: CMPT 470 (2008 Fall), CMPT 405/705 (Cross list for under-/post- graduate, 2007 Fall), CMPT 401 (2007 Fall), CMPT 225 (2007 Spring), CMPT 363 (2007 Spring), CMPT 370 (2006 Spring), CMPT 365 (2005 Fall), CMPT 002 (2005 Fall), CMPT 301 (2005 Summer), CMPT 320 (2005 Summer)

Intern, Webtech Wireless, Burnaby, BC, Canada

11/2011-04/2012

 Research on multi-platform supported real-time data collection for cyber-physical systems on transport/fleet management applications

## Visiting Student, Institute of Software, Chinese Academy of Sciences, China

12/2009-03/2010

 Research on the design of a high-accuracy wireless sensor network testbed and a public traffic supported metropolitan information system

Research Assistant, Department of Computing, the Hong Kong Polytechnic University

11/2009-12/2009

Research on a joint project with Department of Civil and Structural Engineering to develop wireless sensor systems for Structural Health Monitoring on the Guangzhou New TV Tower (Guangzhou, China, http://www.cse.polyu.edu.hk/benchmark/) and other civil structures. Part of our research outcomes have been integrated in the new system on the TV tower

01/2009-05/2009 03/2008-05/2008

Visiting Student, Wireless and Networking Group, Microsoft Research, Asia

04/2006-08/2006

 Research on the architecture of peer-to-peer live video streaming systems. Part of our research results have been adopted in the PPTV (previously PPLive) system

**Research/Teaching Assistant**, Department of Computer Science and Technology, **03/20** Tsinghua University, Beijing, China

03/2002-01/2005

- Research on light-weighted remote control and display protocols customized for embedded systems
- Teaching assistant for "Operating Systems" (undergraduate, 2003 Spring)

**Research Assistant**, Distributed Information System Lab, Department of Computer **09/2000-02/2001** Science and Technology, Tsinghua University, Beijing, China

 Developed the demo and illustration systems for the text book "Computer Organization and Architecture" in the SRT (Student Research Training) Program

## Software Developer, Renmin University of China, Beijing, China

07/2000-09/2000

 Designed and developed a thesis retrieval system for the Department of Economics and Management at Renmin University of China

## Research Assistant, Open Lab, Tsinghua University, Beijing, China

09/1999-05/2000

 Upgraded the computer management system used in the lab to support Chinese characters. Also designed and developed a voice-mail system for the Networked Classroom Project of the university

## **GRANTS AND AWARDS**

- IEEE INFOCOM 2020 Distinguished TPC Member Award
- ACM BuildSys 2018 Best Paper Award
- NSF I/UCRC Phase II: Center for Broadband Wireless Access and Applications (BWAC) at University of Mississippi, 2018-2023 (\$102,500; The only Computer Science faculty in the grant)
  - with Profs. Ramanarayanan Viswanathan, Lei Cao, Alexander Yakovlev, John Daigle and Elliott Hutchcraft
- ACM/IEEE IWQoS 2016 Best Paper Candidate

- NSF I/UCRC Phase I: Broadband Wireless Access and Applications Center at the University of Mississippi, 2015-2020 (\$325,000; The only Computer Science faculty in the grant)
  - with Profs. Ramanarayanan Viswanathan, John Daigle, Lei Cao, Elliott Hutchcraft, Matthew Morrison, Alexander Yakovlev, Paul Goggans, Mustafa Matalgah and Ellen Lackey
- Donation (total value: \$176,615) from PacketStorm Communications Inc., Eatontown, NJ, USA, 2015
- NSF Planning Grant: I/UCRC for BWAC, 2014-2015 (\$13,869; The only Computer Science faculty in the grant)
  - with Profs. Ramanarayanan Viswanathan, Lei Cao, Elliott Hutchcraft, John Daigle, Paul Goggans and Mustafa Matalgah
- The University of Mississippi ORSP Faculty Travel Award, 2014, 2015, 2017 (\$1,000-\$1,200 each; University wide competition based on the value of the proposed efforts to enhance research, scholarship, or creative achievement such as seeking funding opportunities)
- Mitacs-Accelerate Internship Grant, 2012 (\$15,000 CAD)
  - with Webtech Wireless
- IEEE ICME 2011 Quality Reviewer Award
- Simon Fraser University President's PhD Research Stipend Award, 2011
- Chinese Government Scholarship for Outstanding Self-financed Students Studying Abroad 2009
  - ID. 2009-174, 497 in the world across all fields, 46 from Computer Science
- Simon Fraser University Graduate Fellowships, 2008 and 2009
- IEEE Travel Grants
  - MASS'06, ICDCS'07, ICDCS'08, INFOCOM'08, ICNP'11 and INFOCOM'12
- Simon Fraser University Computing Science Fellowship, 2007
- Microsoft Stars of Tomorrow Certificate, Microsoft Research Asia, 2006
- Simon Fraser University Computing Science Graduate Entrance Scholarship, 2005
- Tsinghua University Scholarship for Excellent Student, 2000 and 2001
- Tsinghua University Scholarship for Excellent Freshmen, 1998
- First Prize, Provincial Olympiad in Informatics, Shanxi Province, 1996
- Second Prize, National Olympiad in Informatics (NOI) (Provinces), China, 1995 and 1996
- Second Prize, Provincial Olympiad in Informatics, Shanxi Province, 1994

#### TEACHING ACTIVITIES

- CSCI 354 Web Programming: 2020 Winter
- CSCI 356 Data Structures in Python: 2019 Summer
- CSCI 361 Introduction to Computer Networks: 2013 Spring, 2014 Spring, 2015 Spring, 2016
   Spring, 2017 Spring, 2018 Spring
- CSCI 423 Introduction to Operating Systems: 2014 Fall, 2015 Fall, 2016 Fall, 2017 Fall, 2018 Fall, 2019 Spring, 2019 Fall, 2020 Spring
- CSCI 501 Fundamental Concepts in Systems: 2014 Fall, 2015 Fall, 2016 Fall, 2017 Fall, 2018 Fall,
   2019 Spring, 2019 Fall, 2020 Spring
- CSCI 523 Operating Systems: 2016 Spring, 2018 Spring, 2020 Spring
- CSCI 561 Computer Networks: 2012 Fall, 2013 Fall, 2014 Fall, 2016 Fall, 2017 Fall, 2018 Fall, 2019 Fall
- ENGR 661 Computer Networks II: 2013 Spring, 2014 Spring, 2015 Spring, 2017 Spring

■ CSCI 665 (former ENGR 691-64) - Wireless and Sensor Networks: 2015 Fall, 2019 Spring

#### RESEARCH ADVISING

- Current Student
  - Zhonghui Wang (Ph.D.), Khaled Sabahein (Ph.D.), Yunshu Wang (Master)
- Graduated Student
  - Zeyang Su (Master, May 2014, First job: China Telecom), Yuzhu Bai (Master, EE, Co-advised, July 2015, First job: Burning Fire International, LLC), Zhonghui Wang (Master, April 2016, Admitted for PhD in May 2016), Ghebrekristos Haileslassie (Master, May 2016, First Job: Freelancer), Tisha Brown (Ph.D., July 2017, First Job: Visiting Assistant Professor at Rhodes College).

#### **EXTERNAL TALKS**

- Conference Presentation, "Traffic Aware Wireless Visual Sensor Network Deployment for 3D Indoor Monitoring," *IEEE ICC'19*, Shanghai, China, May 2019.
- Invited Talk, "Towards More Scalable, Low-Cost, Efficient and Intelligent Live Media Streaming Solutions," School of Computer Science, Fudan University, Shanghai, China, May 2019.
- Conference Presentation, "Obstacle-Aware Wireless Video Sensor Network Deployment for 3D Indoor Monitoring," *IEEE GLOBECOM'17*, Singapore, Dec. 2017.
- Invited Talk, "CALMS: Migration towards Cloud-Assisted Live Media Streaming," School of Electronic Information and Communications, Huazhong University of Science and Technology, Wuhan, China, Dec. 2015.
- Invited Talk, "Migration towards Cloud-Assisted Live Media Streaming," School of Computer Science, Northwestern Polytechnical University, Xi'an, China, Dec. 2015.
- Invited Talk, "On Reliable Broadcast in Low Duty-Cycle Wireless Sensor Networks," Department of Mathematics, College of Liberal Arts, The University of Mississippi, University, MS, Sep. 2015.
- Conference Presentation, "RaptorQP2P: Maximize the Performance of P2P File Distribution with RaptorQ Coding," *IEEE ICC'15*, London, UK, Jun. 2015.
- Workshop Presentation, "Reliable and Energy-Efficient Data Collection in Wireless Sensor Networks," UM NSF-BWAC Planning Grant Workshop, University, MS, Jan. 2015.
- Invited Talk, "Migration towards Cloud-Assisted Live Media Streaming," School of Computing Science, Simon Fraser University, British Columbia, Canada, Aug. 2013.
- Invited Talk, "Reliable and Energy-Efficient Data Collection in Wireless Sensor Networks," Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China, Jun. 2013.

- **Conference Presentation**, "Resource Provisioning on Customer-Provided Clouds: Optimization of Service Availability," *IEEE ICC'13*, Budapest, Hungary, Jun. 2013.
- Invited Talk, "Reliable and Energy-Efficient Data Collection in Wireless Sensor Networks,"
  Division of Computer Systems, Department of Information Technology, Uppsala
  University, Uppsala, Sweden, Jun. 2013.
- Invited Talk, "Reliable and Energy-Efficient Data Collection in Wireless Sensor Networks,"

  Department of Computer Science, The University of Memphis, Memphis, TN,

  Oct. 2012.
- Invited Talk, "Reliable and Energy-Efficient Data Collection in Wireless Sensor Networks,"

  Department of Computer and Information Science, The University of Mississippi,

  University, MS, Apr. 2012.
- Invited Talk, "Reliable and Energy-Efficient Data Collection in Wireless Sensor Networks,"

  Department of Computer Science, Montclair State University, Montclair, NJ,

  Apr. 2012.
- Conference Presentation, "CALMS: Cloud-Assisted Live Media Streaming for Globalized Demands with Time/Region Diversities," *IEEE INFOCOM'12*, Orlando, FL, Mar. 2012.
- Conference Presentation, "EleSense: Elevator-Assisted Wireless Sensor Data Collection for High-Rise Structure Monitoring," *IEEE INFOCOM'12*, Orlando, FL, Mar. 2012.
- Conference Presentation, "Utilizing Elevator for Wireless Sensor Data Collection in High-Rise Structure Monitoring," *ACM/IEEE IWQoS'11*, San Jose, CA, Jun. 2011.
- Conference Presentation, "On Long-Term Social Relationships in Peer-to-Peer Systems," *ACM/IEEE IWQoS'11*, San Jose, CA, Jun. 2011.
- Invited Talk, "Reliable and Energy-Efficient Data Collection in Wireless Sensor Networks," David R. Cheriton School of Computer Science, University of Waterloo, Waterloo, ON, Canada, Mar. 2011.
- Conference Presentation, "Duty-Cycle-Aware Broadcast in Wireless Sensor Networks," *IEEE INFOCOM'09*, Rio de Janeiro, Brazil, Apr. 2009.
- Conference Presentation, "RBS: A Reliable Broadcast Service for Large-Scale Low Duty-Cycled Wireless Sensor Networks," *IEEE ICC'08*, Beijing, China, May 2008.
- Conference Presentation, "Stable Peers: Existence, Importance, and Application in Peer-to-Peer Live Video Streaming," *IEEE INFOCOM'08*, Phoenix, AZ, Apr. 2008.
- Conference Presentation, "mTreebone: A Hybrid Tree/Mesh Overlay for Application-Layer Live Video Multicast," *IEEE ICDCS'07*, Toronto, ON, Canada, Jun. 2007.
- Workshop Presentation, "Modeling Path Capacity in Multi-hop IEEE 802.11 Networks for QoS Services," International Workshop on Wireless Mesh-Networks and Applications (WiMa) in conjunction with IEEE MASS, Vancouver, BC,

## Canada, Oct. 2006.

■ **Project Report**, "mTreebone: A Hybrid P2P Multicast Framework for Live Streaming," *Wireless and Networking Group, Microsoft Research Asia*, Beijing, China, Aug. 2006.

## PROFESSIONAL MEMBERSHIP AND ACTIVITIES

- Senior Member, IEEE and IEEE Communications Society
- Member, IEEE Multimedia Big Data Interest Group for ComSoc
- Panelist for NSF Proposal Review Panel
- Proposal Reviewer for ESF (European Science Foundation)
- Journal Editorial:
  - Technical Committee Member, Computer Communications, Elsevier
  - Guest Editor, Special Issue on Recent Advances in Wireless Communication Protocols for Internet of Things, Wireless Communications and Mobile Computing, Hindawi
- Program Vice-Chair:
  - International Conference on Internet of Vehicles (IOV): 2014
- Technical Program Committee Co-Chair:
  - IEEE International Conference on Cloud Computing Technology and Science (CloudCom): 2017
     o Internet of Things (IoT) and Mobile on Cloud track
  - IEEE International Conference on Communications in China (ICCC): 2014
    - o Symposium on Wireless Networking and Multimedia
- Program Session Chair:
  - IEEE INFOCOM: 2015
  - IEEE International Conference on Communications (ICC): 2015, 2019
- Technical Program Committee Member for international conferences:
  - IEEE INFOCOM: 2018-2020
  - International Conference on Parallel Processing (ICPP): 2015
  - IEEE/ACM International Symposium on Quality of Service (IWQoS): 2014-2018
  - IEEE International Conference on Communications (ICC): 2014-2016, 2018-2020
  - IEEE Wireless Communications and Networking Conference (WCNC): 2016-2017
  - IEEE International Conference on Cloud Computing Technology and Science (CloudCom): 2013-2016
    - ACM Multimedia: 2013, 2016, 2018
  - IEEE Global Communications Conference, Exhibition and Industry Forum (GLOBECOM): 2013-2020
    - IEEE International Conference on Mobile Ad-hoc and Sensor System (MASS): 2018-2019
    - International Conference on Computing, Networking and Communications (ICNC): 2018
    - International Conference on Mobile Ad-hoc and Sensor Networks (MSN): 2013
    - IEEE/SAE International Conference on Connected Vehicles and Expo (ICCVE): 2013, 2014
    - IEEE International Conference on Multimedia and Expo (ICME): 2011-2017
    - International ICST Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine): 2014
    - IEEE Vehicular Technology Conference (VTC): 2020
    - IEEE Consumer Communications and Networking Conference (CCNC): 2021

- International Workshop on Hot Topics in Peer-to-Peer Computing and Online Social Networking (HotPOST): 2011, 2013-2017
- IEEE INFOCOM Workshop on Integrating Edging Computing, Caching, and Offloading in Next Generation Networks (IECCO): 2017
  - IEEE ICME 2017 Multimedia & Cloud Workshop: 2017
  - IEEE Wireless Telecommunications Symposium (WTS): 2014
  - International Conference on Internet of Vehicles (IOV): 2014
  - International Conference on Computer Communications and Networks (ICCCN): 2015-2018, 2020
  - International Conference on Big Data Computing and Communications (BigCom): 2017
  - International Conference on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP): 2015
  - International Conference on Communications and Networking in China (CHINACOM): 2010
- Regularly Refereeing for international journals and conferences:
  - IEEE/ACM Transactions on Networking (ToN)
  - IEEE Transactions on Parallel and Distributed Systems (TPDS)
  - IEEE Transactions on Multimedia (ToMM)
  - IEEE Transactions on Mobile Computing (TMC)
  - IEEE Communications Surveys and Tutorials
  - IEEE Transactions on Network and Service Management (TNSM)
  - IEEE Transactions on Wireless Communications (TWC)
  - IEEE Transactions on Computers (TC)
  - IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
  - IEEE Transactions on Industrial Informatics (TII)
  - IEEE Journal on Selected Areas in Communications (JSAC)
  - IEEE Internet of Things Journal (IoT-J)
  - IEEE Multimedia (MM)
  - IEEE Communications Magazine
  - IEEE Communications Letters
- ACM Transactions on Multimedia Computing, Communications, and Applications (former TOMCCAP, now TOMM)
  - ACM Transactions on Sensor Networks (ToSN)
  - EURASIP Journal on Wireless Communications and Networking (JWCN)
  - SPRINGER Wireless Networks (WINET)
  - ELSEVIER Ad Hoc Networks
  - Journal of Communications and Networks
  - IEEE International Conference on Computer Communications (INFOCOM): 2012, 2015-2016
  - IEEE International Conference on Mobile Ad-hoc and Sensor System (MASS): 2007, 2011
  - IEEE International Conference on Communications (ICC): 2007-2009, 2011, 2013
  - IEEE Global Telecommunications Conference (Globecom): 2007, 2010, 2011
  - IEEE Wireless Communications and Networking Conference (WCNC): 2007, 2009, 2011
  - International ICST Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine): 2008

## DEPARTMENTAL AND UNIVERSITY SERVICES

- Faculty Senator, University Faculty Senate: 2013-2017
- Member, University Standing Committee of International Student Programs: 2013-2014
- Member, University Standing Committee of Recreational Facilities: 2016-2017
- Member, University Assessment Committee: 2015-2020
- Judge, Lower Fair (grades 1-6), Mississippi Region VII Science Fair: 2015, 2018
- Panelist on the technology panel for the Inaugural Global China Connection US Southern Summit:
   2015 co-hosted by Ole Miss GCC, Vanderbilt GCC, and the Duke-UNC Leadership Summit
- Member, Engineering Research Board: 2019 Fall
- Member, Department Undergraduate Committee: 2012-2015, 2017-2020
- Member, Department Equipment Committee: 2015-2017, 2018-2020
- Member, Department Seminar Committee: 2012-2014
- Coordinator, Department Seminar Committee: 2015-2016
- Member, Department Faculty Search Committee: 2014-2016, 2018-2019
- Member, Department Instructor Search Committee: 2012-2013, 2015-2016
- Member, Department Information Technology Coordinator Search Committee: 2015 Fall
- Faculty Representative, Engineering Advisory Board Meeting: 2013 Fall
- Member, Selection Committee for Engineering Senior Leadership Award: 2015
- Member, Comprehensive Examination Committee for
  - 2013 Spring: Brenteria Travis
  - 2014 Fall: Kyoshin Choo
  - 2015 Spring: Zhendong Zhao
  - 2018 Spring: Hossein Pourmeidani
  - 2018 Fall: Shirish Patel
- Member, Dissertation Committee for
  - Tony Yun Tian (Ph.D., 2012 Fall: Prospectus; 2013 Summer: Defense)
  - Oyindamola Akande (Ph.D., 2014 Spring: Prospectus; 2014 Summer: Defense)
  - Courtney Humphries (Ph.D., 2015 Spring: Prospectus)
  - Kyoshin Choo (Ph.D., 2015 Fall: Prospectus, 2016 Summer: Defense)
  - Zhaohua Yi (Master, 2015 Spring: Defense)
  - Sampath Kumar Gowrishetty (Master, 2015 Fall: Defense)
  - Taraka Ravindra Polisetti (Master, 2015 Fall: Defense)
  - Roya Lotfi (Master, EE, 2015 Fall: Defense)
  - Harshkumar Ishvarbhai Patel (Master, 2016 Spring: Defense)
  - Sravani Narra (Master, 2016 Spring: Defense)
  - Chun Chung Christopher Ma (Ph.D., 2017 Spring: Prospectus; 2018 Spring: Defense)
  - Amrit Kharel (Ph.D., 2017 Spring: Prospectus; 2017 Fall: Defense)
  - Shirish Patel (Master, 2017 Spring: Defense)
  - Rojina Adhikary (Ph.D., 2017 Summer: Prospectus; 2018 Spring: Defense)
  - Esraa A. Gad (Master, 2017 Summer: Defense)
  - Ibrahim Freewan (Master, 2017 Fall: Defense)
  - Hadi Kasasbeh (Ph.D., 2017 Fall: Prospectus, 2018 Fall: Defense)
  - Hunter Gossett (Master, 2018 Spring: Defense)

- Hossein Pourmeidani (Master, 2018 Fall: Defense)
- Hussein Fadhel (Ph.D., 2018 Fall: Prospectus; 2019 Spring: Defense)
- Tina Gui (Ph.D., 2016 Summer: Prospectus; 2019 Spring: Defense)
- Adham Hagag (Ph.D., 2018 Fall: Prospectus; 2019 Spring: Defense)
- Shobhan Singh (Master, 2019 Spring: Defense)
- Kevin Nguyen (Ph.D., 2018 Summer: Prospectus; 2020 Spring: Defense)
- Achini Herath (Ph.D., 2019 Spring: Prospectus)
- Tassniem Omari (Ph.D, 2019 Summer: Prospectus; 2019 Fall: Defense)
- Torumoy Ghoshal (Ph.D, 2020 Spring: Prospectus)

PUBLICATIONS (@Google Scholar: <a href="https://scholar.google.com/citations?hl=en&user=JBCFTjoAAAAJ">https://scholar.google.com/citations?hl=en&user=JBCFTjoAAAAJ</a>)

## **Book Chapters**

- 1. F. Wang, J. Liu and K. Wu, "Cooperative Overlay Networking for Streaming Media Content," in *Cooperative Networking*, edited by M. S. Obaidat and S. Misra, Wiley, 2010.
- 2. F. Wang and J. Liu, "Network-Wide Broadcast Service in Wireless Sensor Networks," in *Handbook of Research on Developments and Trends in Wireless Sensor Networks: From Principle to Practice*, edited by H. Jin and W. Jiang, IGI Global Publishing, 2010.

#### **Editorial**

1. J. Liu, F. Wang, X. Ma and Z. Yang, "Recent Advances in Wireless Communication Protocols for Internet of Things," *Hindawi Wireless Communications and Mobile Computing (WCMC)*, Vol. 2017, pp.1-2, November 2017.

## **Journal Papers**

- 1. F. Wang, C. Zhang, F. Wang, J. Liu, Y. Zhu, H. Pang and L. Sun, "DeepCast: Towards Personalized QoE for Edge-Assisted Crowdcast with Deep Reinforcement Learning," to appear in *IEEE/ACM Transactions on Networking (ToN)*, 14 pages, 2020.
- 2. X. Ma, W. Deng, F. Wang, M. Hu, F. Chen and M. M. Hassan, "TIMCC: On Data Freshness in Privacy-Preserving Incentive Mechanism Design for Continuous Crowdsensing Using Reverse Auction," *IEEE Access*, Vol. 8, No. 1, pp.1777-1789, December 2019.
- 3. J. Zhang, J. Tang and F. Wang, "Cooperative Relay Selection for Load Balancing with Mobility in Hierarchical WSNs: A Multi-Armed Bandit Approach," *IEEE Access*, Vol. 8, No. 1, pp.18110-18122, January 2020.
- 4. X. Fan, F. Wang, D. Song, Y. Lu and J. Liu, "GazMon: Eye Gazing Enabled Driving Behavior Monitoring and Prediction," to appear in *IEEE Transactions on Mobile Computing (TMC)*, 15 pages, 2019.
- 5. L. Zhang, F. Wang and J. Liu, "Enhancing Dynamic-Viewport Mobile Applications with Screen Scrolling," to appear in *IEEE Transactions on Mobile Computing (TMC)*, 15 pages, 2019.
- 6. F. Wang, Y. Zhu, F. Wang, J. Liu, X. Ma and X. Fan, "Car4Pac: Last Mile Parcel Delivery through Intelligent Car Trip Sharing," to appear in *IEEE Transactions on Intelligent Transportation Systems*, 15 pages, 2019.
- 7. Z. Zhang, F. Wang, D. Wang and L. Zhang, "An Urban Mobility Model with Buildings Involved: Bridging Theory to Practice," *ACM Transactions on Sensor Networks (ToSN)*, Vol. 16, No. 1, pp.1-24,

- February 2020.
- 8. F. Wang, F. Wang, X. Ma and J. Liu, "Demystifying the Crowd Intelligence in Last Mile Parcel Delivery for Smart Cities," *IEEE Network Magazine*, Special Issue on Internet of Things for Smart Cities: Technologies and Applications, Vol. 33, No. 2, pp.23-29, March/April 2019.
- 9. X. Fan, F. Wang, F. Wang, W. Gong and J. Liu, "When RFID Meets Deep Learning: Exploring the Cognitive Intelligence for Activity Identification," *IEEE Wireless Communications Magazine*, Special Issue on Artificial Intelligence for Cognitive Wireless Communications, Vol. 26, No. 3, pp.19-25, June 2019.
- 10. J. Wu, H. Lu, Y. Xiang, R. Wu and F. Wang, "MBR: A Map-Based Relaying Algorithm for Reliable Data Transmission through Intersection in VANETs," *IEEE Transactions on Intelligent Transportation Systems*, Vol. 20, No. 10, pp.3661-3674, October 2019.
- 11. D. Wang, W. Ding, X. Ma, H. Jiang, F. Wang and J. Liu, "MiFo: A Novel Edge Network Integration Framework for Fog Computing," *Springer Peer-to-Peer Networking and Applications (PPNA)*, Vol. 12, No. 1, pp.269-279, January 2019.
- 12. F. Wang, X. Fan, F. Wang and J. Liu, "Backup Battery Analysis and Allocation against Power Outage for Cellular Base Stations," *IEEE Transactions on Mobile Computing (TMC)*, Vol. 18, No. 3, pp.520-533, March 2019.
- 13. L. Zhang, F. Wang and J. Liu, "Mobile Instant Video Clip Sharing with Screen Scrolling: Measurement and Enhancement," *IEEE Transactions on Multimedia (ToMM)*, Vol. 20, No. 8, pp.2022-2034, August 2018.
- 14. H. Wang, T. Li, R. Shea, X. Ma, F. Wang, J. Liu and K. Xu, "Towards Cloud-Based Distributed Interactive Applications: Measurement, Modeling, and Analysis," *IEEE/ACM Transactions on Networking (ToN)*, Vol. 26, No. 1, pp.3-16, February 2018.
- 15. C. Xu, H. Wang, R. Shea, F. Wang and J. Liu, "On Multiple Virtual NICs in Cloud Computing: Performance Bottleneck and Enhancement," *IEEE Systems Journal (ISJ)*, Vol. 12, No.3, pp.2417-2427, September 2018.
- F. Wang, D. Wang and J. Liu, "High-Rise Structure Monitoring with Elevator-Assisted Wireless Sensor Networking: Design, Optimization, and Case Study," *Springer Wireless Networks (WINET)*, Vol. 25, No.1, pp.29-47, January 2019.
- 17. X. Fan, F. Wang and J. Liu, "Boosting Service Availability for Base Stations of Cellular Networks by Event-driven Battery Profiling," *ACM SIGMETRICS Performance Evaluation Review*, Vol. 44, No. 2, pp.88-93, September 2016.
- 18. F. Wang, J. Liu, M. Chen and H. Wang, "Migration towards Cloud-Assisted Live Media Streaming," *IEEE/ACM Transactions on Networking (ToN)*, Vol. 24, No. 1, pp.272-282, February 2016.
- 19. F. Chen, C. Zhang, F. Wang, J. Liu, X. Wang and Y. Liu, "Cloud-Assisted Live Streaming for Crowdsourced Multimedia Content," *IEEE Transactions on Multimedia (ToMM) Special Issue on Multimedia: The Biggest Big Data*, Vol. 17, No. 9, pp.1471-1483, September 2015.
- 20. H. Wang, F. Wang, J. Liu, D. Wang and J. Groen, "Enabling Customer-Provided Resources for Cloud Computing: Potentials, Challenges, and Implementation," *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, Vol. 26, No. 7, pp.1874-1886, July 2015.
- X. Guo, F. Wang, J. Liu and Y. Cui, "Path Diversified Multi-QoS Optimization in Multi-Channel Wireless Mesh Networks," *Springer Wireless Networks (WINET)*, Vol. 20, No. 6, pp.1583-1596, August 2014.
- 22. H. Wang, F. Wang, J. Liu, C. Lin, K. Xu and C. Wang, "Accelerating Peer-to-Peer File Sharing with

- Social Relations," *IEEE Journal on Selected Areas in Communications (JSAC) Special Issue on Emerging Technologies in Communications*, Vol. 31, No. 9, pp.66-74, September 2013.
- 23. H. Wang, F. Wang and J. Liu, "Torrents on Twitter: Explore Long-Term Social Relationships in Peer-to-Peer Systems," *IEEE Transactions on Network and Service Management (TNSM)*, Vol. 10, No. 1, pp.95-104, March 2013.
- 24. F. Wang and J. Liu, "On Reliable Broadcast in Low Duty-Cycle Wireless Sensor Networks", *IEEE Transactions on Mobile Computing (TMC)*, Vol. 11, No. 5, pp.767-779, May 2012. (**Cited by 60**+)
- 25. F. Wang, J. Liu and Y. Xiong, "On Node Stability and Organization in Peer-to-Peer Video Streaming Systems," *IEEE Systems Journal (ISJ) Special Section on Multimedia Communications Systems*, Vol. 5, No. 4, pp.440-450, December 2011.
- 26. F. Wang, D. Wang and J. Liu, "Traffic-Aware Relay Node Deployment: Maximizing Lifetime for Data Collection Wireless Sensor Networks," *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, Vol. 22, No. 8, pp.1415-1423, August 2011.
- 27. F. Wang and J. Liu, "Networked Wireless Sensor Data Collection: Issues, Challenges, and Approaches," *IEEE Communications Surveys and Tutorials*, Vol. 13, No. 4, pp.673-687, December 2011 (Cited by 220+).
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