

Hua Huang

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Research Interest

Mobile Computing, Sensor Systems, Internet of Things (IoT)

Employment

Assistant Professor July 2020 - present
University of California, Merced, CA, USA

Education

PhD in Computer Engineering Jan 2015.- May 2020
Stony Brook University, NY, USA Advisor: Shan Lin, Ph.D.
MS in Computer and Information Sciences Sept 2012 - Dec 2014
Temple University, PA, USA
BE in Electronic and Information Engineering (Advanced Class) Sept 2008 - May 2012
Huazhong University of Science and Technology, China

Publications

- **Hua Huang** and Shan Lin. “MET: A Novel Electric Toothbrushing Monitoring System Based on Magnetic Inductance Sensing.” The 26th Annual International Conference on Mobile Computing and Networking (*MobiCom*) 2020. (17%)
- **Hua Huang**, Hongkai Chen, and Shan Lin. “MagTrack: Enabling Safe Driving Monitoring using Wearable Magnetics.” The International Conference on Mobile Systems, Applications, and Services (*Mobisys*), Seoul, South Korea, 2019. (17%)
- **Hua Huang** and Shan Lin. “WiDet: Device-Free Intrusion Detection based on Deep Convolutional Neural Network.” Elsevier Computer Communication Journal, 2019.
- **Hua Huang** and Shan Lin. “WiDet: Device-Free Intrusion Detection based on Deep Convolutional Neural Network.” ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (*MSWIM*), Montreal, Canada, 2018. *Best Paper Runner-up*
- **Hua Huang** and Shan Lin. “Tooth brushing Recognition using Neural Networks.” Poster of IEEE *IoTDI*, 2017.
- **Hua Huang** and Shan Lin. “Toothbrushing Monitoring using Wrist Watch.” ACM Conference on Embedded Networked Sensor Systems (*SenSys*), Stanford, CA, 2016. (17%)
- **Hua Huang**, Chenchun Ni, Xiameng Ban, Jie Gao, Andrew T. Schneider and Shan Lin “Connected Wireless Camera Network Deployment with Visibility Coverage.” under submission to ACM Transaction on Internet of Things (*TIOT*).

- Kinsum Liu, Jie Gao, Shan Lin, **Hua Huang** and Brent Schiller. “Joint Sensor Duty Cycle Scheduling with Coverage Guarantee.” ACM International Symposium on Mobile Ad Hoc Networking and Computing (*MobiHoc*), Paderborn, Germany, 2016.
- Lin Chen, Shan Lin and **Hua Huang**. “Charge Me If You Can: Charging Path Optimization and Scheduling in Mobile Networks.” ACM International Symposium on Mobile Ad Hoc Networking and Computing (*MobiHoc*), Paderborn, Germany, 2016.
- Lin Chen, Wei Wang, **Hua Huang**, Shan Lin “On Time-constrained Data Harvesting in WSNs: Approximation Algorithm Design.” IEEE/ACM Transactions on Networking (*ToN*), 2016.
- Fei Miao, Shuo Han, Shan Lin, John A. Stankovic, **Hua Huang**, Desheng Zhang, Sirajum Munir, Tian He, and George J. Pappas. “Taxi Dispatch with Real-Time Sensing Data in Metropolitan Areas: A Receding Horizon Control Approach.” IEEE Transactions on Automation Science and Engineering (*TASE*), 2016.
- Fei Miao, Shan Lin, Sirajum Munir, John A. Stankovic, **Hua Huang**, D. Zhang, T. He and G. J. Pappas “Taxi Dispatch with Real-Time Sensing Data in Metropolitan Areas.” ACM/IEEE International Conference on Cyber-Physical Systems (*ICCPS*), Seattle, WA, 2015.
- Lin Chen, Wei Wang, **Hua Huang**, and Shan Lin, “Time-constrained Data Harvesting in WSNs: Theoretical Foundation and Algorithm Design.” IEEE International Conference on Computer Communications (*INFOCOM*), Hong Kong, China, 2015.
- **Hua Huang**, Shan Lin, Lin Chen, Jie Gao, Anwar Mamat, Jie Wu. “Dynamic Mobile Charger Scheduling in Heterogeneous Wireless Sensor Networks.” IEEE International Conference on Mobile Ad hoc and Sensor Systems (*MASS*), Dallas, TX, 2015.
- **Hua Huang**, Chenchun Ni, Xiameng Ban, Jie Gao, Andrew T. Schneider and Shan Lin “Connected Wireless Camera Network Deployment with Visibility Coverage.” IEEE International Conference on Computer Communications (*INFOCOM*), Toronto, Canada, 2014. (19%)
- **Hua Huang**, Shan Lin, Anwar Mamat and Jie Wu “Predictive Scheduling for Spatial-dependent Tasks in Wireless Sensor Networks”, Work-in-Progress of IEEE (*RTAS*), 2013.
- **Hua Huang**, Chenchun Ni, Xiaomeng Ban, Jie Gao and Shan Lin “Connected Wireless Camera Network Deployment with Visibility Coverage.” Poster of ACM (*IPSN*), 2013.

Services

TPC member for ICCCN 2020

Volunteer for ACM Mobicom, ACM IPSN, ACM Mobisys

Reviewer for ACM Sensys, IEEE Infocom, ACM IPSN, IEEE MASS, ACM Transaction of Sensor Networks (TOSN), ACM Transaction of Mobile Computing (TMC), IEEE Internet of Things Journal (IOTJ), IEEE Access.