TIANYU ZHANG

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CURRENT POSITION

<u>Assistant Professor</u> in the School of Computer Science and Technology at Qingdao University, China.

EDUCATION

Doctor of Philosophy in Computer Architecture (Advisor: Prof. Qingxu Deng)   *09/2013 - 10/2018*
Northeastern University, Shenyang, China

Joint Ph.D student (Advisor: Prof. Xiaobo Sharon Hu)   *11/2015 - 05/2017*
University of Notre Dame, Notre Dame, Indiana

Master of Science in Computer Applications Technology   *09/2011 - 07/2013*
Northeastern University, Shenyang, China

Bachelor of Software Engineering   *09/2006 - 07/2010*
Qingdao University, Qingdao, China

RESEARCH INTERESTS

- Real-time and embedded systems, Cyber-physical systems, Real-time scheduling, Wireless network scheduling

PUBLICATIONS

1. **Tianyu Zhang**, Tao Gong, Song Han, Qingxu Deng, X. Sharon Hu, "Fully Distributed Packet Scheduling Framework for Handling Disturbances in Lossy Real-Time Wireless Networks", *IEEE Transactions on Mobile Computing (TMC)*, minor revision (first-round).

2. **Tianyu Zhang***, Tao Gong, X. Sharon Hu, Qingxu Deng, Michael Lemmon, Song Han, "Reliable Dynamic Packet Scheduling over Lossy Real-Time Wireless Networks", accepted and to appear in the *31th Euromicro Conference on Real-Time Systems (ECRTS)*, 2019.

3. **Tianyu Zhang**, Tao Gong, Song Han, Qingxu Deng, X. Sharon Hu, "Distributed Dynamic Packet Scheduling Framework for Handling Disturbances in Real-Time Wireless Networks", *IEEE Transactions on Mobile Computing (TMC)*, doi:10.1109/TMC.2018.2877681.

4. **Tianyu Zhang**, Tao Gong, Zelin Yun, Song Han, Qingxu Deng and X. Sharon Hu, "FD-PaS: A Fully Distributed Packet Scheduling for Handling Disturbances in Real-Time Wireless Networks", *IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS)*, April, 2018.

5. **Tianyu Zhang**, Tao Gong, Chuancai Gu, Huayi Ji, Song Han, Qingxu Deng and X, Sharon Hu, "Distributed Dynamic Packet Scheduling for Handling Disturbances in Real-Time Wireless Networks", *IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS)*, April, 2017.

6. **Tianyu Zhang**, Nan Guan, Qingxu Deng, Wang Yi, "Start time configuration for strictly periodic real-time task systems", *Journal of Systems Architecture (JSA)*, Vol. 66 (2016): 61-68.

7. **Tianyu Zhang**, Nan Guan, Qingxu Deng, Wang Yi, "On the Analysis of EDF-VD Scheduled Mixed-Criticality Real-Time Systems". *Industrial Embedded Systems (SIES), 2014 9th IEEE International Symposium on*, IEEE, 2014.

8. Meiling Han, **Tianyu Zhang**, Qingxu Deng, Bounding Carry-in Interference for Synchronous Parallel Tasks under Global Fixed-Priority Scheduling, *Journal of Systems Architecture (JSA)*, Vol. 90 (2018): 34-43.

9. Tianian Li, **Tianyu Zhang**, Jie Song, Ge Yu, Temperature Minimization and Thermal-Driven Scheduling for Real-Time Periodic Tasks. *Journal of Signal Processing Systems (JSPS)*, Pages: 1-16, 2018.

10. Tianian Li, **Tianyu Zhang**, Jie Song, Ge Yu, TA-MCF: Thermal-Aware Fluid Scheduling for Mixed Criticality System, *Journal of Circuits, Systems, and Computers (JCSC)*, 2018, 1950029.

11. Meiling Han, **Tianyu Zhang**, Yuhan Lin, Zhiwei Feng, Qingxu Deng, Global Fixed Priority Scheduling with Constructing Execution Dependency in Multiprocessor Real-Time Systems, *Journal of Circuits, Systems, and Computers (JCSC)*, Vol. 27 (2018): 1850165.

12. Haibin Tong, Qingxu Deng, **Tianyu Zhang**, Yuanguo Bi, A Low-cost Indoor Localization System Based on RSSI by Modifying Trilateration for Harsh Environments, *International Journal of Distributed Sensor Networks (IJDSN)*, Vol. 14 (2018): 1550147718779680.

DEMO PAPERS

1. Tao Gong, Huayi Ji, **Tianyu Zhang**, Song Han, Qingxu Deng and X. Sharon Hu, "Demo Abstract: 6TiSCH in Full Bloom: from Dynamic Resource Management to Cloud-based Network Analytics". *IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS) - Demo Session*, April, 2018.

2. Tao Gong, Huayi Ji, Song Han, **Tianyu Zhang**, Chuancai Gu, X. Sharon Hu and M. Nixon, Demo Abstract: A Cross-device Testing and Debugging System for Large-scale Real-Time Wireless Networks, *IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS) - Demo Session*, Pittsburgh, USA, April, 2017.

PRESENTATIONS

1. Tianyu Zhang, Tao Gong, Zelin Yun, Song Han, Qingxu Deng and X. Sharon Hu, "FD-PaS: A Fully Distributed Packet Scheduling for Handling Disturbances in Real-Time Wireless Networks", *IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS)*, Porto, Portugal, 2018.

2. Tianyu Zhang, Tao Gong, Chuancai Gu, Huayi Ji, Song Han, Qingxu Deng and X, Sharon Hu, "Distributed Dynamic Packet Scheduling for Handling Disturbances in Real-Time Wireless Networks", *IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS)*, Pittsburgh, USA, 2017.

3. Tianyu Zhang, Nan Guan, Qingxu Deng, Wang Yi, "On the Analysis of EDF-VD Scheduled Mixed-Criticality Real-Time Systems", *Industrial Embedded Systems (SIES), 2014 9th IEEE International Symposium on*, IEEE, Pisa, Italy, 2014.

4. Tianyu Zhang, Nan Guan, Qingxu Deng, "Research on Real-Time Performance of Scheduling Algorithms in Xen Virtual Machines", *National Software Application Conference (NASAC)*, Guilin, China, November 2014.