

Qinghai Liao (May, 2018)

CONTACT INFORMATION

Robotics and Multiperception Lab
Dept. Electronic and Computer Engineering
Hong Kong University of Science and Technology
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WEBSITE

Lab (<http://ram-lab.com>)
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RESEARCH INTERESTS

Robotics and Autonomous systems, Simultaneous Localization and Mapping (SLAM), Self-Calibration, Computer vision, Point-cloud, All-terrain mobile robots, Service robots, Networked Robotics Distributed resource allocation, Machine Learning

EDUCATION

Hong Kong University of Science and Technology, Hong Kong SAR, China P.R.

Ph.D. academic Study at Robotics and Multiperception Lab, HKUST, February 2017 to present

- Research Topic: *Extrinsic Calibration, Sensor Fusion, Mobile Robotics, Autonomous Driving*
- Adviser: Dr. Ming Liu

City University of Hong Kong, Hong Kong SAR, China P.R.

Ph.D. academic Study at Robotics and Multiperception Lab, CityU, September 2015 to February 2017

- Research Topic: *Mobile Robotics, Autonomous Driving, Extrinsic Calibration*
- Adviser: Dr. Ming Liu

Huazhong University of Science and Technology, Wuhan, China P.R.

Bachelor at the Mechanical Design Manufacture and Automation, September 2011 to July 2015

- GPA: 3.82/4.0
- Thesis Topic: *Design of shock absorber for heavy-duty CNC deep hole boring machine*
- Adviser: Professor Jingming Xie and Mr. Facheng He
- Area of Study: Mechanical Design, Mechanical Manufacturing, Control theory and engineering

EXPERIENCE

September 2017 to present, intern at Unity-Drive Tech, Shenzhen.

Jan 2016 to Oct 2016, **Technician Support & Team Member** of B-Free and RAM Lab joint team for Cybathlon, zurich.

June 2015 to Aug 2015, **Embedded Software Development Engineer** of QKM Technology Co., Ltd. Dongguan, China

July 2014 to July 2014, **Sensor Engineer** of SZ DJI Technology Co., Ltd. Shenzhen, China

September 2012 to April 2015, **Team Leader** of ThinkFly Studio (student team) of HUST

AWARDS

Contest Awards

- 5th in Powered Wheelchair Race of first Cybathlon Competition (full scores), Zurich, Switzerland Oct 2016
- Second Prize in the National College Mechanical Innovation Competition Division of Hubei, Hubei May 2014
- First Prize in the China Quality Sports of Robot Competition Division of Hubei in Quadcopter Program, Hubei Dec 2013
- Second Prize in the 2nd National Marine Vehicle Design and Manufacture Competition, Harbin July 2013

Student Awards

- Best Support Award of RAM Lab Nov 2017
- Best Service Award of RAM Lab Dec 2016
- Scholarship of Academic Excellence Dec 2013
- Most Improved Scholarship Jan 2013

CONFERENCE PUBLICATIONS

- [1] Zhe Wang, Yang Liu, **Qinghai Liao**, Haoyang Ye, Ming Liu, Characterization of a RS-LiDAR for 3D Perception, The 8th IEEE-CYBER, Tianjin, China, 19-23 July 2018
- [2] Xudong Lin, Xian Chen, Wenchong Zhang, Tianying Sun, Peilin Fang, **Qinghai Liao**, Xi Chen, Jufang He, Ming Liu, Feng Wang, and Peng Shi, Core-Shell-Shell Upconversion Nanoparticles with Enhanced Emission for Wireless Optogenetic Inhibition, *Nano Letters*, v.18, (2), February 2018, p. 948-956, 2018
- [3] Ying Wang, Xudong Lin, Xi Chen, Xian Chen, Zhen Xu, Wenchong Zhang, **Qinghai Liao**, Xin Duan, Xin Wang, Ming Liu, Feng Wang, Jufang He, Peng Shi, *Biomaterials*, v. 142, October 2017, p.136-148, 2017
- [4] **Qinghai Liao**, Ming Liu, Wenchong Zhang, Peng Shi, Visual Tracking and Servoing System for Experiment of Optogenetic Control of Brain Activity, *Computer Vision Systems - Lecture Notes in Computer Science*. Springer, Sep/2017, 2017
- [5] **Qinghai Liao**, Ming Liu, Peng Shi and Wenchong Zhang, A Flexible Object Tracking System for Planary Motion, *IEEE International Conference on Real-time Computing and Robotics*, RCAR 2016, June 6-10, 2016, Angkor Wat, Cambodia

TEACHING ACTIVITIES

2018.Semester B: HKUST Teaching Assistant: ELEC3300 - Introduction to Embedded Systems

2017.Semester A: HKUST Teaching Assistant: ELEC4010K - Machine Learning and Information Processing for Robotic Perception

2016.Semester A: CityU Teaching Assistant: MBE2029 - Electrical and Electronic Principles

PROFESSIONAL SERVICE

Referee Service

- *IEEE International Conference on Robotics and Automation (ICRA)*, 2017,2018
- *International Journal of Advanced Robotic Systems*, 2016, 2017
- *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2016, 2017, 2018
- *International Conference on Computer Vision Systems (ICVS)*, 2017
- *IEEE International Conference on Real-time Computing and Robotics(RCAR)*, 2016

Conference Service

- Secretary and Program Committee Member of 2017 IEEE International Conference on Computer Vision System (ICVS 2017), Shenzhen, July 2017

- Program Committee Member of 2016 IEEE International Conference on Real-time Computing and Robotics(RCAR), Angkor Wat, June 2016

PROFESSIONAL
MEMBERSHIPS

Institute for Electrical and Electronics Engineers (IEEE), RAS Technical Committee on Multi-Robot Systems, 2016–present
 Institute for Electrical and Electronics Engineers (IEEE), Young Professionals, 2015–present
 Institute for Electrical and Electronics Engineers (IEEE), Student Member, 2015–present

PROFESSIONAL
SKILLS

Programming

- Experienced in C(embedded development), C++, Python, Matlab, Lua

Frameworks

- ROS, VRE-P

REFERENCES

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 China

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