# Jiankun Wang

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#### **Education**

B.Eng. Shandong University

Op/2011–06/2015

Dept. of Electronic Engineering & Instrument Dept. GPA: 91.19/100 Rank: 1/310

Ph.D. The Chinese University of Hong Kong

Advisor: Prof. Max Q.-H. Meng
Research field: Motion and path planning, Robot control, Human Robot Interaction

Visiting Student Researcher Stanford University

Advisor: Prof. Oussama Khatib
Research field: Robotics, Motion planning and control

PostDoc The Chinese University of Hong Kong

09/2011–06/2015

08/2015 – 07/2019

07/2018 – 12/2018

08/2019 – Present

' Advisor: Prof. Max Q.-H. Meng

Research field: Motion and path planning, Robot control, Human Robot Interaction

### **Selected Publications**

o Finding a High-Quality Initial Solution for the RRTs Algorithms in 2D Environments Jiankun Wang, Wenzheng Chi, Mingjie Shao and Max Q.-H. Meng, Fellow, IEEE Robotica, 2018

 Socially Compliant Path Planning for Robotic Autonomous Luggage Trolley Collection at Airports
 <u>Jiankun Wang</u> and Max Q.-H. Meng, Fellow, IEEE
 <u>Sensors</u>, 2019, 19(12)

o Safe and Robust Mobile Robot Navigation in Uneven Indoor Environments

Chaoqun Wang\*, <u>Jiankun Wang\*</u>, Chenming Li, Danny Ho, Jiyu Cheng, Tingfang Yan, Lili Meng and Max Q.-H. Meng, Fellow, IEEE

Sensors, 2019, 19(13)

\* indicates equal contribution.

o An Improved RRT Algorithm Incorporating Obstacle Boundary Information

<u>Jiankun Wang</u>, Xintong Li and Max Q.-H. Meng, Fellow, IEEE 2016 IEEE International Conference on Robotics and Biomimetics (ROBIO).

Tropistic RRT\*: An Efficient Planning Algorithm via Adaptive Restricted Sampling Space
 <u>Jiankun Wang</u>, Xintong Li, Wenzheng Chi and Max Q.-H. Meng, Fellow, IEEE
 <u>2018 IEEE International Conference on Information and Automation (ICIA).</u>

o Risk-Informed-RRT\*: A Sampling-based Human-friendly Motion Planning Algorithm for Mobile Service Robots in Indoor Environments

Wenzheng Chi, <u>Jiankun Wang</u> and Max Q.-H. Meng, Fellow, IEEE 2018 IEEE International Conference on Information and Automation (ICIA).

o Continuous Systolic and Diastolic Blood Pressure Estimation utilizing Long Short-term Memory Network Frank Powen Lo, Xintong Li, <u>Jiankun Wang</u>, Jiyu Cheng and Max Q.-H. Meng, Fellow, IEEE 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'2017)

o Motion Artifact Reduction in PPG Signals based on Periodic Component Factorization
Frank Powen Lo, Xintong Li, <u>Jiankun Wang</u> and Max Q.-H. Meng, Fellow, IEEE
39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'2017)

o Efficient Object Search With Belief Road Map Using Mobile Robot
Chaoqun Wang, Jiyu Cheng, Jiankun Wang, Xintong Li and Max Q.-H. Meng, Fellow, IEEE Robotics and Automation Letters 3(4), 3081-3088

o Risk-DTRRT-Based Optimal Motion Planning Algorithm for Mobile Robots Wenzheng Chi, Chaoqun Wang, <u>Jiankun Wang</u>, and Max Q.-H. Meng, Fellow, IEEE IEEE Transactions on Automation Science and Engineering

## **Honors And Awards**

Reaching Out Award of CUHK  Award for exchange student	201	.8 -	- 2	019
Global Scholarship Programme for Research Excellence  Award for Excellent exchange student	201	.8 -	- 2	019
Hong Kong Ph.D. Fellowship  Highest scholarship for students study in Hong Kong. Selection based on: academic excellence, research ability and potential, communication and interpersonal skills, as well as leadership abilities		.5 -	- 2	019
Outstanding Graduate of Shandong Province (top 0.5%)  Highest award for graduates in Shandong Province	201	.5 -	- 2	016
The President Scholarship of Shandong University (top 0.2%)  Highest award for students in Shandong University	201	.4 -	- 2	015
Outstanding Student of Shandong Province (top 0.5%)  Highest award for students in Shandong Province	201	4 -	- 2	015
First Prize – International Underwater Robot Competiotion  Award for winners in underwater robot competiotion	201	.4 -	- 2	015
Champion – China Robot Competition  Highest award in Robot Competition, China	201	.3 -	- 2	014
National Scholarship (top 2%)  Highest national wide scholarship for undergraduate students in China	201	.2 -	- 2	013
First-class Scholarship of Shandong University (top 5%)  Award for outstanding students	201	.2 -	- 20	014
	Global Scholarship Programme for Research Excellence  Award for Excellent exchange student  Hong Kong Ph.D. Fellowship  Highest scholarship for students study in Hong Kong. Selection based on: academic excellence, research ability and potential, communication and interpersonal skills, as well as leadership abilities  Outstanding Graduate of Shandong Province (top 0.5%)  Highest award for graduates in Shandong Province  The President Scholarship of Shandong University (top 0.2%)  Highest award for students in Shandong University  Outstanding Student of Shandong Province (top 0.5%)  Highest award for students in Shandong Province  First Prize – International Underwater Robot Competiotion  Award for winners in underwater robot competiotion  Champion – China Robot Competition  Highest award in Robot Competition, China  National Scholarship (top 2%)  Highest national wide scholarship for undergraduate students in China  First-class Scholarship of Shandong University (top 5%)	Award for exchange student  Global Scholarship Programme for Research Excellence  Award for Excellent exchange student  Hong Kong Ph.D. Fellowship  Highest scholarship for students study in Hong Kong. Selection based on: academic excellence, research ability and potential, communication and interpersonal skills, as well as leadership abilities.  Outstanding Graduate of Shandong Province (top 0.5%)  Highest award for graduates in Shandong Province  The President Scholarship of Shandong University (top 0.2%)  Highest award for students in Shandong University  Outstanding Student of Shandong Province (top 0.5%)  Highest award for students in Shandong Province  First Prize – International Underwater Robot Competiotion  Award for winners in underwater robot competiotion  Champion – China Robot Competition  Highest award in Robot Competition, China  National Scholarship (top 2%)  Highest national wide scholarship for undergraduate students in China  First-class Scholarship of Shandong University (top 5%)  201  202  203  204  205  206  207  208  209  209  201  201  201  201  201  201	Award for exchange student  Global Scholarship Programme for Research Excellence  Award for Excellent exchange student  Hong Kong Ph.D. Fellowship  Highest scholarship for students study in Hong Kong. Selection based on: academic excellence, research ability and potential, communication and interpersonal skills, as well as leadership abilities.  Outstanding Graduate of Shandong Province (top 0.5%)  Highest award for graduates in Shandong Province  The President Scholarship of Shandong University (top 0.2%)  Highest award for students in Shandong University  Outstanding Student of Shandong Province (top 0.5%)  Highest award for students in Shandong Province  First Prize – International Underwater Robot Competiotion  Award for winners in underwater robot competiotion  Champion – China Robot Competition  Highest award in Robot Competition, China  National Scholarship (top 2%)  Highest national wide scholarship for undergraduate students in China  First-class Scholarship of Shandong University (top 5%)  2018 –  2018 –  2018 –  2019 –  2019 –  2014 –  2014 –  2014 –  2014 –  2014 –  2015 –  2016 –  2016 –  2017 –  2018 –  2018 –  2018 –  2019 –  2019 –  2019 –  2019 –  2019 –  2010 –  2010 –  2011 –  2011 –  2012 –  2013 –  2014 –  2015 –  2016 –  2017 –  2018 –  2018 –  2018 –  2018 –  2019 –  2019 –  2019 –  2010 –  2010 –  2011 –  2011 –  2012 –  2013 –  2014 –  2015 –  2016 –  2017 –  2018 –  2018 –  2019 –  2010 –	Award for exchange student  Global Scholarship Programme for Research Excellence  Award for Excellent exchange student  Hong Kong Ph.D. Fellowship  Hong Kong Ph.D. Fellowship  Highest scholarship for students study in Hong Kong. Selection based on: academic excellence, research ability and potential, communication and interpersonal skills, as well as leadership abilities.  Outstanding Graduate of Shandong Province (top 0.5%)  Highest award for graduates in Shandong Province  The President Scholarship of Shandong University (top 0.2%)  Highest award for students in Shandong University  Outstanding Student of Shandong Province (top 0.5%)  Highest award for students in Shandong Province  First Prize – International Underwater Robot Competiotion  Award for winners in underwater robot competition  Champion – China Robot Competition, China  National Scholarship (top 2%)  Highest national wide scholarship for undergraduate students in China  First-class Scholarship of Shandong University (top 5%)  2012 – 2  First-class Scholarship of Shandong University (top 5%)

### **Personal Activities**

#### o Reviewer of Journals and Conferences

- IEEE Transactions on Cybernetics
- IEEE Transactions on Industrial Electronics
- SCIENCE CHINA Information Science
- IEEE Conference on Information on Automation (ICIA 2016)
- IEEE Conference on Information on Automation (ICIA 2017)
- IEEE Conference on Advanced Robotics (ICAR 2017)
- IEEE Conference on Automation and Science Engineering (CASE 2018)
- IEEE Conference on Information on Automation (ICIA 2018)
- International Conference on Computer Science and Application Engineering (CSAE 2019)

#### Teaching Assistant at CUHK

- BMEG4103: Biomedical Modeling. Fall 2015-2016
- BMEG3420: Medical Robotics. Spring 2016-2017
- Develop a new course integrating robot and vision. Fall 2016-2017
- Special TA: Interview, Photographer and General Affairs. Spring 2017-2018
- ENGG1100: Engineering Design. Spring 2018-2019

## **Skills**

- o **Programming skills:** C/C++, MATLAB, Python, LaTeX.
- o Robot Frameworks: ROS, Gazebo, Movelt.
- o Tools: Linux Shell, Visual Studio, OpenFrameworks.
- o Sports: Basketball, Table Tennis.