## Main Achievements

**LinkedIn:** https://www.linkedin.com/in/jin-tao-38372112b/
**Researchgate:** https://www.researchgate.net/profile/Jin-Tao-14
**Google Scholar:**
https://scholar.google.com/citations?hl=en&authuser=3&user=54vg5qoAAAAJ

**Patent:**
- Automatic disturbance rejection controller adaptive parameter tuning method and device, No. 202111170976X, China
- Identification method of wind field for powered parafoil system, No. CN 105912019 A, China
- Design of airdrop wind field detector and its method, No. CN201610369426.3, China
- Sending device, receiving device as well as receiving and sending system, No. CN 203706399 U, China
- Classification recognition method, device and wearable device of falling posture, No.202011485714.8, China

**Award and honors:**
- **Student Awards at Qingdao University of Science and Technology (2004–2008)**
  - Award an outstanding student for 3 times, 2005–2008
  - The First Scholarship for 2 times, 2006–2008

- **Student Awards at Guangxi University of Science and Technology (2008–2011)**
  - Excellent post-graduate student of Guangxi University of Science and Technology, 2009
  - Guangxi Zhuang Autonomous Region Excellent Post-Graduate Student, 2010 (2/600, only 2 post-graduate students in the whole university have been awarded on a competitive basis)
  - Nanshuo Chancellors Scholarship, 2011 (5/25000, only 5 students in the whole university have been awarded on a competitive basis)
  - Outstanding Graduates of Guangxi Zhuang Autonomous Region, 2011 (1/600, only 1 post-graduate student in the whole university has been awarded)
  - The only representative of all Master graduates to give a speech in the graduation ceremony (1/600)

- **Student Awards at Peking University (2009–2011)**

- - Intelligent Control Lab Special Contribution Award, 2010 (1/30, only 1 student has been awarded with special contribution to the lab)

- **Employee Awards at Beijing Sany Heavy Machinery CO., LTD (2011-2014)**
  - Quality Award, 2012 (Awarded for outstanding contributions in product quality improvement)
  - Principal Engineer, 2013 (The company's internal title)
  - Beijing Intermediate Engineers, 2013 (Intermediate technical title of Beijing)
  - Annual Post Pacesetter, 2013 (5/2000, only 5 staff were awarded for outstanding contributions)

- **Student Awards at Nankai University (2014-2017)**
  - Huawei Scholarship, 2015
  - Doctoral International Academic Exchange Fund, 2016
  - National Scholarship, 2016
  - Zhou Enlai Scholarship, 2016 (20/25000, it is the highest honor for students in Nankai University, it is only awarded 20 outstanding fellows among more than 25000 students including all undergraduates and graduates)
  - Person of The Year Nomination, 2016 (35/25000, only awarded 35 outstanding fellows among more than 25000 students including all undergraduates and graduates was nominated)
  - Outstanding Graduates, 2017
  - The only representative of all PhD graduates to give a speech in the graduation ceremony (1/900)

- **After 2017**
  - Best Student Paper Award at 13th FLINS Conference, 2018
  - Excellent Doctoral Dissertation of Nankai University, 2018 (<3%)
  - Excellent Doctoral Dissertation of Tianjin 2017-2019, 2019 (<1%)
  - Peking University Boya Postdoctoral Fellowship 2018 (<10%)
  - Fellowship of China Postdoctoral Science Foundation 2020

**Teaching:**
- Teaching Assistant of Motion control, April-July 2015 and September-December 2016
- Teaching Assistant of Discrete mathematics, September-December 2015
- Teaching Assistant of C++ program design, March-June 2016

- Teaching Assistant of Modelling, Estimation and Dynamic Systems, October–December 2017, October–December 2018 and October–December 2019

**Research Supervision:**
From 2017 to now, Jin has supervised/am supervising 3 bachelor theses (3 in Aalto), 4 master theses (3 in Nankai and 1 in Peking University) and 4 PhD dissertations (1 in Nankai and 1 in Dalian Maritime University ):

**Ph.D dissertations Jin is supervising**
- Peng Xu. Multi-agent formation control based on event-trigger mechanism. (Will graduate in 2023 from Dalian Maritime University, Co-supervised with Prof. Guangming Xie from Peking University and Prof. Minyi Xu from Dalian Maritime University)
- Hong Zhu. Accurate modeling and control of parafoil systems. (Will graduated in 2022 from Nankai University, Co-supervised with Prof. Qinglin Sun from Nankai University)
- Yuemin Zheng. Machine learning based control. (Will graduated in 2024 from Nankai University, Co-supervised with Prof. Qinglin Sun from Nankai University)
- Xiaodong Jiao. Acoustic manipulation. (Will graduated in 2025 from Nankai University)

**Master theses Jin has supervised/instructed**
- Wei Liang. Research on modeling and simulation of parafoil system in complex environments. (Graduated in 2017 from Nankai University, Co-supervised with Prof. Qinglin Sun)
- Sai Chen. Trajectory tracking control of powered parafoil under complex disturbances. (Graduated in 2018 from Nankai University, Co-supervised with Prof. Qinglin Sun)
- Li Yu. Identification and application of wind fields for powered parafoil system. (Graduated in 2019 from Nankai University, Co-supervised with Prof. Qinglin Sun)
- Ruijun Liu. Research on balancing car control based on improved limited time LQR. (Graduated in 2020 from Peking University, Co-supervised with Prof. Guangming Xie)

**Bachelor theses Jin has supervised/instructed**
- Tarvo Noora. Controlling anonymous mobile agents to form a formation. 2019. Aalto/ELEC.
- Prinsén Pontus . Machine learning based modeling methods. 2019. Aalto/ELEC.
- Nevalainen Niklas. A suvey on micro-manipulation using sound fields. 2018. Aalto/ELEC.

**Academy Services:**

**Memberships and positions of trust in scientific communities**
- Member of IEEE (2019-date)
- Bored Member of Chinese Institute of Electronics (2018-date)
- Member of China Simulation Society (2019-date)

**Review for 20+ international journals and conferences, a total of more than 200 reviews have been completed by 01.09.2021. The selected reviewed journals and conference are listed as:**
- IEEE Transactions on Industrial Informatics
- IEEE Internet Journal of Things
- IEEE Transactions on Signal Processing
- IEEE Transactions on Mechatronics
- IEEE Transactions on Aerospace and Electronic system
- International Journal of Energy Research
- Nonlinear Dynamics
- ISA Transactions
- Aerospace Science and Technology
- IEEE Access
- Sensors, Energies
- Applied Sciences
- Chinese Control Conference
- IFAC World Congress

**Organizing scientific conferences**
- Co-Chair of the 14th IEEE/ASME International Conference on Mechatronic and Embedded System and Applications (MESA 2018), 2-4 July 2018, Oulu, Finland
- Co-Chair of the 15th IEEE/ASME International Conference on Mechatronic and Embedded System and Applications (MESA 2019), 2-4 July 2018, New York, USA
- Co-Chair of the 33th Chinese Control and Decision Conference, 22 to 24 May 2021, Kunming, China
- Financial Chair of the 4th International Conference on Manipulation, Automation and Robotics at Small Scales (MARSS2019), 1-5 July 2019, Helsinki, Finland
- Session co-chair of 33th Chinese Control and Decision Conference (CCDC 2021), 22-24 May 2021, Kunming, China
- Program Chair of 1th swarm intelligence and aerospace unmanned system seminar
- Guest editor for Mathematics
    - Special Issue "Robust Parameter Region or Attraction Region Calculation for Control System Design"
- Editorial board member of Sustainability (From 6.2022 to present)

- Principle Guest editor of Sustainability on Special Issue "Complex System Dynamics and Intelligent Control for Sustainable Engineering"

**Research Projects:**

As PI, Jin has led **FOUR** research projects. As the main participant, Jin has participated in TWO research projects. The grants are listed as follows:

- Postdoctoral Researcher Fund of the Finnish Academy of Sciences, 315660, Three-dimensional Acoustic Manipulation of Multiple Micro-objects, 2018/09-2021/08, 366,637 euros, completed, **Principal Investor**
- National Natural Science Foundation of China Project, 62003175, research on adaptive trajectory planning and anti-disturbance control of wind field of unmanned parafoil system, 2021/01-2023/12, 240,000 RMB, in research, **Principal Investor**
- Sub-project of the National Key Research and Development Program, 2019YFC1510900, research on parafoil aircraft flight control technology, 2020/07-2022/12, 300,000 RMB, in research, **Principal Investor**
- China Postdoctoral Fund General Project, 2020M670045, research on adaptive trajectory planning and anti-disturbance control of unmanned parafoil system in wind farm environment, 2020/05-2020/12, 80,000 yuan, completed, **Principal Investor**
- General Project of National Natural Science Foundation of China, 61573197, Optimization and analysis of typical control structure under the constraints of hypersonic flight body, 2015/01-2019.12, 650,000 yuan, completed, Participate
- General Project of National Natural Science Foundation of China, 61273138, research on the control method of parafoil autonomous homing and sparrow landing stage, 2013-01-2016-12, 800,000 yuan, completed, Participate