

Dr. Shaowu Yang (杨绍武)



Background

- From 09/2014: I will rejoin NUDT in China to further my robotics research.
- 28.07.2014: Doctoral defense for my [thesis](#) "Visual SLAM for Autonomous Navigation of MAVs", Department of Computer Science, University of Tübingen
- 10/2010-07/2014: Ph.D. candidate at the chair of Cognitive Systems, Department of Computer Science, University of Tübingen
- 01/2010-09/2010: Ph.D. student at National University of Defense Technology (NUDT), Changsha, China
- 12/2009: Master of Engineering, in Control Science and Engineering
- 09/2007-12/2009: Master studies at NUDT, majoring in Control Science and Engineering
- 06/2007: Bachelor of Engineering, in Automation
- 09/2003-06/2007: Undergraduate studies at NUDT, majoring in Automation

Research Interests

- Computer/Robot Vision
- Visual SLAM
- Autonomous Navigation of Flying Robots

Publications

- [1] Shaowu Yang, Sebastian A. Scherer, Xiaodong Yi, and Andreas Zell. Multi-camera visual {SLAM} for autonomous navigation of micro aerial vehicles. *Robotics and Autonomous Systems*, 93:116 -- 134, 2017. [[DOI](#) | [link](#)]
- [2] Sebastian A. Scherer, Shaowu Yang, and Andreas Zell. Dctam: Drift-corrected tracking and mapping for autonomous micro aerial vehicles. In *Unmanned Aircraft Systems (ICUAS), 2015 International Conference on*, pages 1094--1101, Denver, CO, USA, June 2015. [[link](#)]
- [3] Shaowu Yang, Sebastian A. Scherer, and Andreas Zell. Robust onboard visual SLAM for autonomous MAVs. In *2014 International Conference on Intelligent Autonomous Systems (IAS-13)*, Padova, Italy, July 2014.
- [4] Shaowu Yang, Sebastian A. Scherer, and Andreas Zell. Visual SLAM for autonomous MAVs with dual cameras. In *2014 International Conference on Robotics and Automation (ICRA'14)*, Hongkong, China, June 2014.
- [5] Andreas Masselli, Shaowu Yang, Karl Engelbert Wenzel, and Andreas Zell. A cross-platform comparison of visual marker based approaches for autonomous flight of quadcopters. *Journal of Intelligent & Robotic Systems*, 73(1-4):349--359, 2014. [[DOI](#)]
- [6] Shaowu Yang, Sebastian A. Scherer, Konstantin Schauwecker, and Andreas Zell. Autonomous Landing of MAVs on Arbitrarily Textured Landing Sites using Onboard Monocular Vision. *Journal of Intelligent & Robotic Systems*, 74(1-2):27--43, 2014. [[DOI](#) | [link](#)]
- [7] Andreas Masselli, Shaowu Yang, Karl Engelbert Wenzel, and Andreas Zell. A cross-platform comparison of visual marker based approaches for autonomous flight of quadcopters. In *Proceedings of International Conference on Unmanned Aircraft Systems*, pages 1--9, Atlanta, Georgia, USA, May 2013.
- [8] Shaowu Yang, Sebastian A. Scherer, Konstantin Schauwecker, and Andreas Zell. Onboard Monocular Vision for Landing of an MAV on a Landing Site Specified by a Single Reference Image. In *2013 International Conference on Unmanned Aircraft Systems (ICUAS'13)*, pages 317--324, Atlanta, GA, USA, May 2013. [[link](#)]

- [9] Shaowu Yang, Sebastian A. Scherer, and Andreas Zell. An onboard monocular vision system for autonomous takeoff, hovering and landing of a micro aerial vehicle. *Journal of Intelligent & Robotic Systems*, 69(1--4):499--515, January 2013. [[link](#)]
- [10] Shaowu Yang, Sebastian A. Scherer, and Andreas Zell. An Onboard Monocular Vision System for Autonomous Takeoff, Hovering and Landing of a Micro Aerial Vehicle. In *2012 International Conference on Unmanned Aircraft Systems (ICUAS'12)*, Philadelphia, PA, USA, June 2012.
- [11] Huimin Lu, Shaowu Yang, Hui Zhang, and Zhiqiang Zheng. A robust omnidirectional vision sensor for soccer robots. *Mechatronics*, 21(2):373--389, March 2011. [[link](#)]
- [12] Huimin Lu, Hui Zhang, Shaowu Yang, and Zhiqiang Zheng. Camera parameters auto-adjusting technique for robust robot vision. In *2010 IEEE International Conference on Robotics and Automation (ICRA 2010)*, pages 1518--1523, Anchorage, Alaska, USA, May 2010. [[link](#)]

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