

# Dr. Yifeng Niu

## Background

- Since 01/2012: Visiting Researcher, Department of Computer Science, University of Tübingen, Germany
- Since 06/2010: Postdoctoral Researcher, College of Electronic Science and Engineering, NUDT, China
- Since 01/2008: Lecturer, College of Mechatronics and Automation, NUDT, China
- 09/2001-12/2007: Postgraduate, Institute of Automation, College of Mechatronics and Automation, NUDT, China, Ph.D (2007)
- 09/1997-06/2001: Undergraduate, Department of Automatic Control, National University of Defense Technology (NUDT), China, B.Sc (2001)

## Research Interests

- Autonomous Flying Robots
- Computer Vision
- Sensor Fusion
- Intelligent Computation

## Current Projects

- The Special Financial Grant from China Postdoctoral Science Foundation: A new approach of infrared and visible information real-time fusion and target recognition for UAV cooperative perception

## Publications

- Yifeng Niu, Shengtao Xu, Lizhen Wu, and Weidong Hu. Airborne Infrared and Visible Image Fusion for Target Perception Based on Target Region Segmentation and Discrete Wavelet Transform, *Mathematical Problems in Engineering*, vol. 2012, Article ID 275138, 10 pages, 2012. doi:10.1155/2012/275138.
- Lizhen Wu, Yifeng Niu, and Lincheng Shen. Contextual Hierarchical Part-Driven Conditional Random Field Model for Object Category Detection, *Mathematical Problems in Engineering*, vol. 2012, Article ID 671397, 13 pages, 2012. doi:10.1155/2012/671397.
- Qingjie Zhang, Yifeng Niu, Lin Wang, Lincheng Shen and Huayong Zhu. Average Consensus Seeking of High-order Continuous-time Multi-agent Systems with Multiple Time-varying Communication Delays, *International Journal of Control Automation and Systems*, v 9, n 6, p 1209-1218, 2011.
- Lizhen Wu, Yifeng Niu and Lincheng Shen. Robust feature point matching based on local feature groups(LFGs) and relative spatial configuration, *Journal of Computational Information Systems*, v 7, n 9, p 3235-3244, 2011.
- Yifeng Niu, Lincheng Shen, Xiaohua Huo, and Guangxia Liang. Multi-Objective Wavelet-Based Pixel-Level Image Fusion Using Multi-Objective Constriction Particle Swarm Optimization, In: *Multi-Objective Swarm Intelligent Systems, Theory and Experiences*, Springer-Verlag Berlin Heidelberg, p 151-178, 2010.
- Yifeng Niu, Lincheng Shen, Lizhen Wu and Yanlong Bu. Optimizing the number of decomposition levels for wavelet-based multifocus image fusion, *Proceedings of the 8th World Congress on Intelligent Control and Automation (WCICA2010)*, Jinan, China, p 6351-6356, 2010.
- Yifeng Niu and Lincheng Shen. Multiobjective constriction particle swarm optimization and its performance evaluation, *Lecture Notes in Computer Science (LNAI)*, v 4682, p 1131-1140, 2007.
- Yifeng Niu and Lincheng Shen. An adaptive multi-objective particle swarm optimization for

- color image fusion, Lecture Notes in Computer Science (LNCS), v 4247, p 473-480, 2006.
- Yifeng Niu and Lincheng Shen, Multi-resolution image fusion using AMOPSO-II, Lecture Notes in Control and Information Sciences (LNCIS), v 345, p 343-352, 2006.
  - Yifeng Niu, Lincheng Shen and Yanlong Bu. Multi-objective blind image fusion, Lecture Notes in Computer Science (LNAI), v 4062, p 713-720, 2006.

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