

Xi'an Institute of Opt. and Pre. Mech., University of Chinese Academy of Sciences  
Ph.D.

# Jianwu FANG

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## Education Background

- 2012.9 - Now **Ph.D.**, *Signal and Information Processing*, Center for OPTical Imagery Analysis and Learning (OPTIMAL), Xi'an Institute of Optics and Precision Mechanics, University of Chinese Academy of Science.
- 2009.9 - 2012.7 **MEng.**, *Information Engineering and Control*, Department of Electrical Engineering and Control, Chang'an University (211).
- 2005.9 - 2009.7 **BEng.**, *Automation*, Department of Electrical Engineering and Control, Chang'an University (211).

## Research Interests

Video/Image Content Analysis, Object Detection and Tracking, Multi-spectral video analysis, Intelligent Traffic Systems (ITS).

## Research Achievements

- 1 **J. Fang**, Q. Wang, Y. Yuan, "Part-based Online Tracking with Geometry Constraint and Attention Selection," *IEEE Transactions on Circuit Systems for Video Technology (IEEE)*, vol. 24, no. 5, pp. 854-864, 2014. *SCI, IF=2.615*.
- 2 Y. Yuan, **J. Fang**, Q. Wang, "Robust Superpixel Tracking via Depth Fusion," *IEEE Transactions on Circuit Systems for Video Technology (IEEE)*, vol. 24, no. 1, pp. 15-26, 2014. *SCI, IF=2.615*.
- 3 Q. Wang, **J. Fang**, and Y. Yuan, "Multi-cue Based Tracking," *Neurocomputing (Elsevier)*, vol. 131, pp. 227-236, 2014. *SCI, IF=2.083*.
- 4 Y. Yuan, **J. Fang**, and Q. Wang, "Online Anomaly Detection in Crowded Scenes via Structure Preservation," *IEEE Transactions on Cybernetics (IEEE)*, vol. 45, no. 3, pp. 562-575, 2015. *SCI, IF=3.469*.
- 5 Q. Wang, **J. Fang**, and Y. Yuan, "Adaptive Road Detection via Context-aware Label Transfer," *Neurocomputing (Elsevier)*, vol. 158, pp. 174-183, 2015. *SCI, IF=2.083*.
- 6 Y. Yuan, **J. Fang**, and Q. Wang, "PAD: Pay Attention to Dangers When Driving," *Pattern Recognition*, 2015, Submitted. *SCI, IF=3.096*.

## Project Experience

- 1 Project: National Natural Science Foundation of China (NSF Program) under Grants 61379094.  
Description: Multi-source imagery based saliency detection and image resizing.  
Contribution: Serve as the third participant in charge of visual attention modeling, and multi-source information integration.
- 2 Project: National Basic Research Program of China (973 Program) under Grant 2011CB707104.  
Description: Information extraction and fast change detection from multi-source heterogeneous data.

Contribution: Serve as an implementer responsible for multi-spectral video analysis, visualization, and anomaly detection.

- 3 Project: National Natural Science Foundation of China (NSF Program) under Grants 61105012.  
Description: Stereo vision based image semantic segmentation.  
Contribution: Serve as an implementer responsible for video analysis, semantic analysis, and object tracking.
- 4 Project: National Natural Science Foundation of China (NSF Program) under Grants 61172143.  
Description: Multi-modal probabilistic topic model for text visualization.  
Contribution: Serve as an implementer responsible for semantic analysis, and probabilistic topic model construction.

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## Research Activities

- 1 **Reviewer** of several SCI Journals, such as Neurocomputing, SCIENCE CHINA Information Sciences.
- 2 **TPC Member** of ICME 2014/2015, ChinaSIP 2014/2015, ICSI 2014/2015, CIS 2014.
- 3 **Reviewer** of BMVC 2014/2015, ICASSP2014, ACM Multimedia 2014, etc.

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## Honors and Awards

- 1 Outstanding Doctoral Graduates, University of Chinese Academy of Sciences, 2015.
- 2 Pivot of Merit Student Award, University of Chinese Academy of Sciences, 2014.
- 3 Zhu Liyuehua Outstanding Doctoral Scholarship, University of Chinese Academy of Sciences, 2014.
- 4 Outstanding Master Graduates, Chang'an University, 2012.
- 5 Pivot of Merit Student Award, Chang'an University, 2011.
- 6 Outstanding Bachelor Graduates, Chang'an University, 2009.
- 7 National Scholarship, Chang'an University, 2007.

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## Skills and Expertise

- 1 Algorithms, Statistics, Optimizations.
- 2 Traffic video Processing, Pattern Recognition, Computer Vision.
- 3 Image/Video Content Analysis.
- 4 Matlab, LaTeX, C/C++, Illustrator, Visio.