

Dr. Joel Fu
Professor
Department of Computer Science
Alabama A & M University
Normal, Alabama 35762
Room: 209 ETB
Phone: (256) 372-4119
FAX: (256) 372-5578
E-Mail: jian.fu@aamu.edu

CAREER INTEREST: Academic, Research, and Industrial

Image Processing, Sensor/Data Fusion and Target Discrimination, Remote Sensing, Artificial Intelligence, Multi Spectral/Hyperspectral Imaging, Iris recognition in Biometrics.

EDUCATION

- Ph.D. degree in Computer Science and Engineering, Spring 2005
University of Alabama in Huntsville
- MS degree in Computer Science, Spring 1998
Alabama A & M University
- MS degree in Physics, Spring 1996
Alabama A & M University
- BS degree in Physics, Spring 1986
Anhui University

PROFESSIONAL BACKGROUND

- Assistant/Associate/Full Professor – Department of Computer Science, Alabama A & M University, Normal, Alabama, 2003-present
- Assistant Professor – Department of Math and Computer Science, University of North Alabama, Florence, Alabama, 2002
- Software Engineer - MESA Solutions, Inc., Huntsville, Alabama, 1999 - 2001
- Software Consultant – Intergraph, Huntsville, Alabama, 1998 - 1999

SELECTED PUBLICATIONS (Journal papers)

1. O. M. Igwe, Y. Wang, G. C. Giakos and J. Fu, Human activity recognition in smart environments employing margin setting algorithm, *J. Ambient Intelligence and Humanized Computing*, 13, 3669–3681, (2020).
2. Y. Wang, M. Amin, J. Fu, and H. Moussa, A Novel Data Analytical Approach for False Data Injection Cyber-Physical Attack Mitigation in Smart Grids. *IEEE Access*, 5, 26022-26033 (2017)
3. J. Fu, H. J. Caulfield, C. Glenn. “Primitive attempt to turn images into percepts,” *Int. J. Mach. Learning & Cybernetics*, 5, 963-970 (2014).
4. J. Fu, H. J. Caulfield, D. Wu, W. Tadesse “Hyperspectral Image Analysis using Artificial Color,” *J. Applied Remote Sensing*, Vol. 4, 043514 (2010).
5. J. Fu, H. J. Caulfield, D. Wu, T. Montgomery. “Effects of Hyperellipsoidal Decision Surfaces on Image Segmentation in Artificial Color,” *J. Electronic Imaging*, 19(2), 023003 (2010).

6. J. Fu, H. J. Caulfield, S. M. Yoo, D. Wu. "Fuzzy Aggregation with Artificial Color filters," *Information Sciences*, 180, 167-180 (2010).
7. J. Fu, and H. J. Caulfield. "Making a Smart Color Camera," *Image and Vision Computing*, 26, 253-258 (2008)
8. J. Fu and H. J. Caulfield, "Designing spectral sensitivity curves for use with Artificial Color," *Pattern Recognition*, 40, 2251-2260 (2007)
9. J. Fu and H. J. Caulfield. "Applying color discrimination to polarization discrimination in images," *Optics Communications*, 272, 362-366, (2007)
10. J. Fu, H. J. Caulfield, and A. Bandyopadhyay. "Pairing Mathematical Morphology with Artificial Color to Extract Targets from Clutter," *J. Imaging Science & Technology*, 51(2), 148-154, (2007).
11. J. Fu, H. J. Caulfield and A. J. Bond. "Artificial and Biological color band design as spectral compression," *Image and Vision Computing*, 23, 761-766 (2005)
12. J. Fu, H. J. Caulfield, and T. Mizell. "Applying Median Filtering with Artificial Color," *J. Imaging Science and Technology*, 49(5), 498-504 (2005)
13. J. Fu, H. J. Caulfield, S. M. Yoo, and V. Atluri. "Use of Artificial Color Filtering to Improve Iris Recognition and Searching," *Pattern Recognition Letter*, 26, 2244-2251 (2005)
14. H. J. Caulfield, J. Fu and S. M. Yoo. "Artificial Color image logic," *Information Science*, 167, 1-7 (Dec. 2004).
15. J. Fu, H. J. Caulfield and S. R. Pulusani. "Artificial Color Vision: a preliminary study," *J. Electronic Imaging*, 13(3), 553-558 (July 2004).
16. J. Fu, M. Schamschula, and H. J. Caulfield. "Optical Parallel Database Management System for Page Oriented Holographic Memories," *Opt. Express*, Vol. 5, No.12 (1999).
17. J. Fu, M. Schamschula, and H. J. Caulfield. "Modular Solid Optical Time Delay System," *Optics Communications*, Vol. 121, No. 1(1995). Also appeared in Selected Papers on Optical Photonic Control Systems for Phased Array Antennas, edited by N. A. Riza, *SPIE Milestone Series Vol.MS136*, 544-548, (1997).

AWARD/HONOR

- "Hyperspectral Image Analysis using Artificial Color" is listed as the most widely read articles in SPIE digital library: Top ONE in remote sensing and in top 10 over all fields, 2010.
- Jim Zimmerman Award, AAMURI, 2008.
- Research on Modular Solid Optical Time Delay System has been awarded SPIE Milestones, 1997.