

IMS Researcher Profile

Institution: Missouri S&T

Name: James W. Fonda

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Expertise: Controls, Sensor Networks, and Hardware

Current Research Activities:

Dissertation/Thesis Topics:

Project 1:

- Wireless Monitoring
- Fault Detection and Prognostics of Large Scale Systems

Skills: Embedded system design, C/C++ programming, Matlab

Previous Background:

BSEE University of Missouri-Rolla (2001)

MSEE University of Missouri-Rolla (2004)

Ph.D. EE University of Missouri-Rolla (2008)

Publications:

- J.W. Fonda, M.J. Zawodniok, J.T. Birt, S. Jagannathan, UMR Mote-based Demonstration of Wireless Sensor Networking Protocols using Pneumatic Testbed, 6th International Symposium on Information Processing in Sensor Networks, IPSN 2007, pp. 569–570, April 2007.
- J. W. Fonda, M. J. Zawodniok, S. Jagannathan, S. E. Watkins, "Development and Implementation of Optimized Energy-Delay Sub-network Routing Protocol for Wireless Sensor Networks," *Proc. of the IEEE Int. Symp. on Intelligent Control*, Munich, Germany, pp. 119-124, 2006.
- J. W. Fonda, M. J. Zawodniok, J. Sarangapani, and S. E. Watkins, "Adaptive Distributed Fair Scheduling and Its Implementation in Wireless Sensor Networks," *Proc. of the IEEE Conf. on Systems, Man and Cybernetics*, Taipei, Taiwan, pp. 3382-3387, 2006.
- J. W. Fonda, Watkins, S. E., "Health Monitoring of a Truss Bridge using Adaptive Identification," *Proc of the IEEE Conf. on Intelligent Transportation Systems Conf. (ITSC)*, pp.944-949, 2007.
- K. Mitchell, S. E. Watkins, J. W. Fonda, and J. Sarangapani, "Embeddable Modular Hardware for Multi-Functional Sensor Networks," *Smart Mater. Struct.*, vol. 16, no. 5, pp. N27-N34, 2007.

